1995

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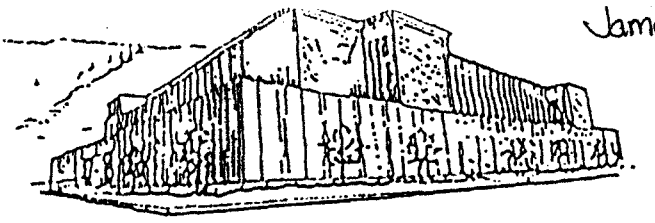

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WITHOUT COMPROMISING THE FUTURE: SUSTAINABILITY IN MISSOULA

by

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Presented in Partial fulfillment of the requirements for the degree of Master of Science

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1995

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April 27, 1995
Date

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Ann Arbor, MI 48106 - 1346

gift 7-28-95

ABSTRACT

Most humans live in cities, and Missoula County is 90 percent urban. Cities consume the vast majority of resources and create most of the environmental damage on our planet. Cities are not sustainable in their current form. This paper explores what becoming a sustainable community would mean for Missoula, Montana. Various researchers and practioners have proposed and tested approaches to urban sustainability. The goal is to bring human settlements into harmony with the hinterland that sustains them. The approaches fall into two categories: conceiving of the city ecologically, as a system, and redesigning the various elements of a city to become more sustainable. Using Missoula as a case, the author examines the historic development of the community, focusing on the key indicators of sustainability: water, air, energy, food, materials, transportation and land use. Prior to white setttlement, the Native population lived harmoniously with the land. Water was a determining factor shaping development during the first several decades of settlement. After thirty years, Missoula remained sustainable, its local system essentially self-reliant; however, the value system of the citizens did not seek sustainability but rather resource exploitation and expansion. With the coming of the railroad in the 1880s, Missoula began to participate more and more in the industrialized economy. This transformed the community and set the stage for the enormous changes in the last half of this century, making Missoula unsustainable in every indicator except that of water quantity. These changes did not go unnoticed. Many citizens began to advocate for sustainability, particularly in the arena of community planning. In the last two decades, Missoula has written, debated and adopted myriad of planning documents, most of which articulate a vision for a sustainable community. Forces and dynamics, largely economic, but with well-articulated political elements, have stymied the implementation of those visions. One recent effort, Vision 2020, conceived of as a solution to this lack of implementation, also articulated a call for sustainability but was also attacked by elements of the business community and defeated politically. Like most proposals for sustainability, these efforts lacked an understanding of the political forces that are vested in the status quo and will oppose them. Furthermore, many strategies fostering a more sustaianble community do not require public or community-wide action but can be promoted at a neighborhood level, creating more commons and building the strength to pursue an agenda for sustainability. A few elements of such an agenda are discussed, focusing on Missoula's West Side neighborhood.

ACKNOWLEDGEMENTS
I would like to thank several people. Geri Payton and Rick Gillespie of *Columbiana* probably never imagined what would come of sending me to cover the First International Ecocities Conference in 1990. I would like to thank all the people who read and commented on various drafts of this: my committee — Ron Erickson, Bruce Jennings and Dick Gotshalk — Dan Kemmis, Phil Smith, Bill Clarke, Mark Anderlik, Hank Harrington, Paul Miller, Doris Fischer, Dan Flores, and Kent Curtis. I would very much like to thank Will Wood for reading and for much more, as well as Leslie Wood. Thanks to Alan McQuillan for helping keep body and soul together. The folks at the Institute for Social Ecology helped tremendously to get this off the ground: thanks to Dan, Murray, Paula, Nina, Jay, Shauna, Henry Hammer of Cal Tech and Tim Smith of U. Penn. Above all I would like to thank the EVST department, Vicki Watson who seemed to follow what I was doing, and especially Tom Roy and Sandie Bolles who gave me every help I needed every step of the way. Grateful thanks to the various awarding committees who generously provided support. I also thank Eric Johnson of the *Independent*, because some of this material was published in a different form in that paper.

Very special thanks to my beloved wife, partner, editor and so on, Julie Hoffman.

This is dedicated to my two sons, Scott and Jeff, because after all that is what it is all about.

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TWO STORIES

#1

Missoula, Jan. 19, 2020

Maggie is up very early that morning communicating with clients in Africa and Asia. Her work at the Missoula Ecological Development Corporation requires global connections, but it also allows her to do some of her work at her home on the west side of town. As usual, Sergi sticks his head into her office before heading off to the group home where he works.

Before getting the kids, Brian and Sonya, up for school, Maggie spots a deer in their yard. It is not unusual, but she's always a bit surprised that they come this far into town, even along the rather brushy greenway that links her neighborhood with the mountains.

After breakfast, Maggie walks with the kids through the clear, cold air to the school. Sonya is certainly old enough to go by herself (she chafes a little at Mom's company, in fact), and Maggie would never think there might be a safety problem, but Maggie herself usually goes to the school because many people in the neighborhood do. They stop to exchange news and conduct the seemingly endless debate on issues that is so characteristic of Missoula. With the clinic, community gardens, and daycare all located at the school, many people have reasons to go there. In any case, as the neighborhood council representative, Maggie is comfortable in the public building in which a great deal of her community business is conducted.

After dropping the kids off and extracting herself from several animated conversations — these people always want her ear! — she stops by the room of Maryanne Kwang, the silver-haired woman who volunteers in the after school program. "I'll be downtown this afternoon, and Sergi will be late, too, so the kids will be staying here until my brother picks them up."

"Okay," says Maryanne. "Are you two going out tonight?"

"Yes, we have tickets to the Shakespeare Festival at the U."

"How exciting. It's hard to get tickets with all the people from around the country coming."

"Yes, we were lucky," Maggie says.

Had this been a nicer day, Maggie would have ridden her bike to work and also taken it on the bus downtown. Since it's winter, after she puts in a full morning at work, she rides the bus downtown, This evening she will take the trolley to the U. Sergi will meet her there, and they'll take the bus home after the show.

She sits on the crowded bus and gazes out the window, thinking. She is so used to it that she does not really even notice the clear view of picturesque hillsides, the broad stretches of trees, or the handsome buildings that almost blend into the countryside. She is used to thinking of it as countryside, even while knowing how remarkable it is that within the city itself one could feel that way. It is difficult at times to imagine, standing in any one part of town, that on the other side of the valley is an equally dense cluster of buildings.

Maggie, however, is lost in her thoughts. Tired, this day she is a bit annoyed at the amount of time she spends — we all spend — struggling with the problems and conflicts of public affairs. She knows she will have

to spend hours of sometimes difficult debate as they work on the Vision 2050 project this afternoon. And whenever she thinks of Sonya and Brian, it is with deep concern over their future, albeit a concern mixed with hope.

As the bus crosses the river, frozen over and white with snow, Maggie remembers her mother's hard work when she was a child, all the hours of citizen-planning she put in. What an amazing thing that was. When thinking about the late 20th century and what they had to deal with, Maggie is almost surprised we survived it. The creativeness and decisiveness of those Missoulians inspires her.

Of course, Maggie thinks (getting back to business as her bus arrives downtown), their decisions, however good they were, have framed the problems we now have to deal with. She only hopes she can do the same thing for her own kids.

or

#2

Missoula, 2020

Woody Ryman gets up in darkness, three hours before he has to be at his minimum-wage job pumping gas at a convenience store in Missoula. He hasn't been able to afford a place in town for many years; he lives in a trailer park south of Florence. The pollution there is almost as bad as it is in Missoula now, though the air quality laws aren't as severe. The advantage of living out of town is that they still have pretty good water. The commute takes an hour in good weather. The weather is not good today, and another air quality alert is in place.

Driving up on 93, it is impossible to tell where Missoula ends and Lolo begins — or for that matter where Lolo ends and Florence begins. The 93 Strip seems continuous. Woody had thought that the new expansion of U.S. 93 to six lanes of divided highway would clear traffic up, but it just seems like more people use it. He forgets to exit before the Cloverleaf over the old Fairgrounds, so he zooms over the slums and is deposited in the thick of University traffic. He will probably be late for work, and he might get fined if the cops spot his sub-standard car. (He can't afford one that meets the latest Missoula Air Quality Standards).

The U district still teems with students, looking cold in the windy streets. Woody's kids are amazed at the old pictures he has of the tree-lined avenues when he lived there. Most of the trees died in the 1990s.

He wishes his kids could go to one of the better schools in Missoula — though even those are languishing — but he's glad Florence doesn't have the gangs and crime now prevalent in the overcrowded Missoula High Schools. His kids have to get themselves to school, though, because his wife, Judy, won't be home from her graveyard shift at the nursing home yet. Woody hopes her back is holding up. She has worked with a back injury for months because they simply can't do without the income. Even so, it seems like the money spent on commuting nearly cancels it out.

He drives past the dingy government "campus" centered around the courthouse. His mother used to attend hours of public meetings, until she burned out and gave up. Woody can't bring to mind who his representatives are. Like that matters, he thinks.

As he drives through the tall shiny buildings surrounding the downtown area, several blocks west of St. Pat's now, he remembers being able to see heron on the riverfront, long a thing of the past. Of course, the

glittering parks downtown are still vibrant, often filled with downtown lawyers and retirees who have descended from their houses jammed on the hillsides above the pollution. Some of them still have deer in their back yards, but not many.

Tied up in traffic again, Woody has plenty of time to think. The drivers next to him have faces masked to help them breathe. Woody can't help but think of summer, when with the short (and unpaid) vacation he has, he will drive many miles to go camping in the little remaining wildlands.[1]

Two very different stories of the future. One is dark, fearful; also expected. Even though we want the first story to be true, we tend to call the second one likely. It is derived, after all, by extrapolating the present, carrying out the worst trends. Population in Missoula has been rising by 2% per year, so by the year 2020, the county will have, by extrapolation, 130,000 residents. Right now, Missoulians drive more than a million vehicle miles per day, so —in this dark vision— by the year 2020 that will mean two million vehicle miles. Pollution will rise with it, and so will regulation. Hillsides and riverfronts are not protected, and we have little provision for affordable housing; so we will see Dean Stone Mountain, Waterworks Hill, Jumbo and so on filled with houses. Missoula could follow some national and international trends and continue the sharp division between rich and poor. Much of the growth we currently

[1]These stories were written by the author based on citizen responses to Missoula's Vision 2020 planning effort. A somewhat different version of the first story was included in Missoula Vision 2020, *The Visions Report: Missoula at a Crossroads. Synopsis of Participant Comments*, 1993. The second was based on fears and concerns citizens voiced at the Opening Conference, June 1992.

experience is not economic growth but simply population, so those who can afford to buy the upper-end housing can come and live here, squeezing out long-time residents; thus we imagine a Missoula of minimum-wage service workers tending upper middle-class retirees. With increased population, access to the government will become less frequent and more formal; the current disjointed and unresponsive (and fiscally impoverished) local governments will become more so, with the city and county still competing and bickering, preventing much needed planning and progressive action. With less and less public feeling, less sense of community, the aging urban forest — among other things — will die out without being replaced; just as those public-spirited people of the past who planted them have gone by the wayside, not replaced.

As nasty and unwanted as that vision is, we have a tendency to see it as the Real, the Inevitable.

It is not.

Some might call the other story utopian, and that is also not true.

In fact, thousands of us, here and around the world, together and more often separately, without knowing, are moving together towards that first, "utopian," story. In fact, around the world, the technical means are proven for making the urban community balance its practices with the natural system of which it is a part. Missoula can become a sustainable community.

First of all, we still have intact physical, biological, and ecological underpinnings. Our creeks and rivers are flowing freely, with living riparian areas along much of the waterway. Some of those are wild, and we have other larger wildlands nearby. We do have an urban forest — threatened though it may be — and a system of parks, greenways and open

space including the hillsides — disjointed and un-protected though these areas may be. Elk, deer, heron, osprey, and other wild animals cohabit near us.

Our common attachment to and appreciation for the natural elements of this place extends to the community as well. We bicycle and walk to work for the best reasons, even though our facilities for non-automotive transportation often lag behind. Many of us work long hours to help our neighborhoods govern ourselves. Our local government thrives on hours of volunteer citizen participation. Most of our plans, be they land-use, historic districts, solid waste, or transportation plans, were formed with extensive citizen help. Citizens have helped develop natural parks along our rivers, and have called for and use the trail systems.

Many of the best ideas about how to live sustainably have been tried and proven by fellow Missoulians. Others are being launched. Carrying on the tradition of the Garden City, organic agriculture and community gardening has had a solid role in Missoula for more than 20 years. Two community supported farm projects are ongoing. Native plant restoration is being done along the river and in other parts of Missoula.

Alternative building practices, designed to use less of our forest resources, are being developed. A co-housing group is forming. A community land trust — combining affordable housing with sound ecology — is being born. Alternative methods of resolving disputes are also familiar to many in Missoula, including some in government. All of these elements make Missoula a possible candiate for a sustainable community.

It has been my contention now for several years that sustainablity is not a technical problem but a social and political one.

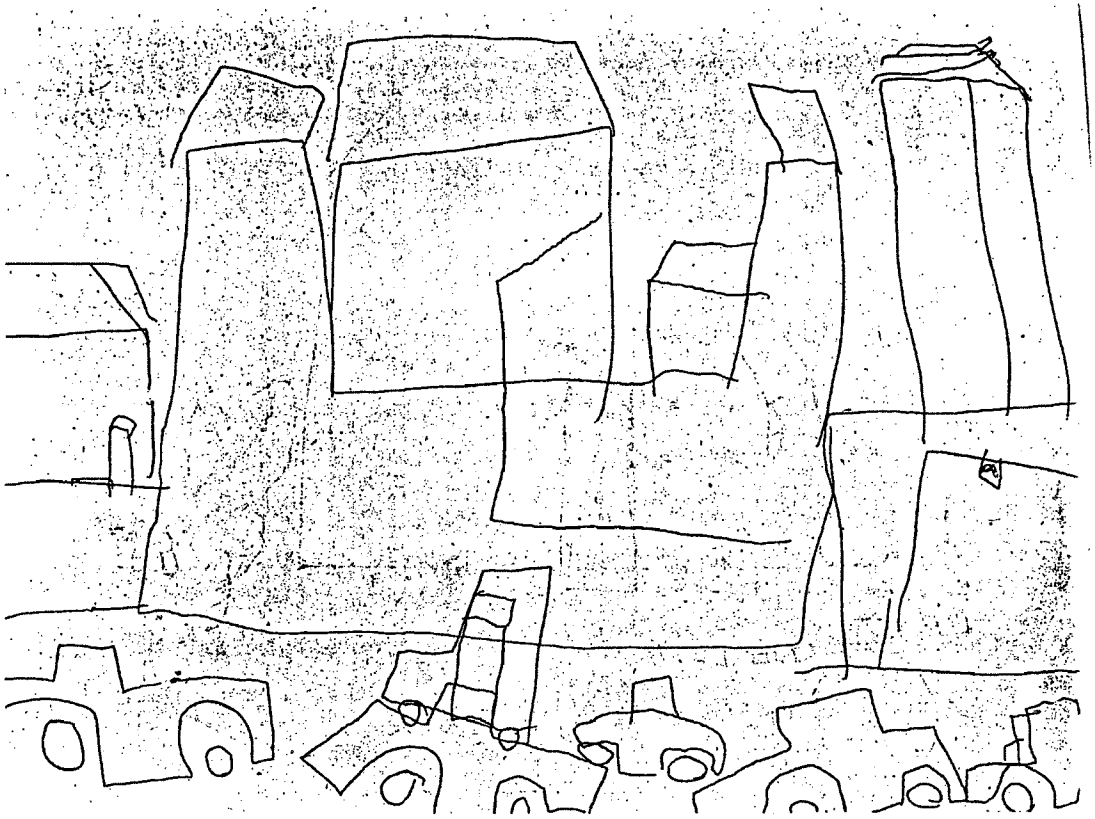
Socially we need to recognize our common goals and common movement towards that and support each other. We need to build and extend the support systems we have. We need to set aside old bickering and infighting.

Politically, we need to understand how entrenched the old ways are and build support on common ground. But we cannot wait for the power structure to hand us what we want.

And to combat that disastrous tendency to see the bleak story as the "real" one, we must tell the new story again and again. Everywhere. All the time. With our words, with our bikes, with our paintbrushes, with our shovels. To our children, to our neighbors, to the government, to ourselves. By singing, by dancing, by listening, by acting, by voting.

What follows is an account of how we can begin that story. It is not a "Plan." It is a different possibility. First I briefly describe what a sustainable community is, examining some developments in other parts of the country and around the world. Then I look at Missoula, where we are and how we got here. Missoulians have clearly expressed our desire for a sustainable community, but local planning efforts have stymied. I briefly detail how the failure of planning has come about. Finally I describe a few strategies we can take to make Missoula more sustainable.

We know what we want. We should know that it is possible: everything I outline here has been done before somewhere. The decades of experimentation and pilot projects are over: it is time to move out into broader acceptance.



CHAPTER 1:

WHAT IS A SUSTAINABLE COMMUNITY AND WHY DO WE NEED ONE HERE?

Most of the increasing number of books and articles on "sustainability" begin with a mind-numbing litany of environmental destruction.[1] Across the globe, people are becoming more and more aware of and concerned about the many negative impacts of humans on the environment, from pollution and deforestation to species extinction and climate change. I will refrain from such a litany, in part because the reader can readily find that in any

[1]For examples, see Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations*. St. Martin's Press, 1991; Al Gore, *Earth in the Balance: Ecology and the Human Spirit*. Houghton Mifflin Co., 1992; David W. Orr, *Ecological Literacy: Education and the Transition to a Postmodern World,* State University of New York Press,1992.; Daniel Chivras, *Lessons From Nature: Learning to Live Sustainably on the Earth*. Island Press, 1992; or any of Lester Brown's Worldwatch annual *State of the World* reports.

of the sources noted. My attraction to "sustainability" is that is a positive idea. Not merely a fix for a problem, the project of *building* sustainable communities is a creative act of developing new lifeways — it is about living in harmony. It is about *doing* something.

However, I think it is important to explain why it's essential to focus on our cities. Most of the work in sustainable communities is directed towards large metropolises for some obvious reasons. And, fortunately we in Missoula don't have to face some of the dire problems of big cities. (Yet.) And, in fact, Missoula — as "the Last Best Place" — thrives on thinking it is un-like those places. American culture has always placed value on the rural and the natural. Our culture has seen cities as places of degeneration, crowding, filth, all the things we left behind in the old country.[2] That attitude is very prevalent in Missoula today. When we say this is "the last best place," what we mean is that it is the last wilderness, the last cowboy range, the last place to escape punishment from the evils of urban life.

This is a self-defeating attitude, however.

"Seventy-five percent of the people on this planet now live in cities. To another species, humans

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[2]Newman and Kentworthy identify this as an Anglo-Saxon "pastoral" or anti-urban tradition. "In general the English, American and Australian traditions have been to idealize places that are rural." (1989, 93)

look like the urban species," Peter Berg of San Francisco's Planet Drum points out. "What is their habitat? Cities." (McGrath, 26)

Not only do most humans live in cities today, but many writers have described the formation of cities as the highlight of human culture.[3] Of the 80,000 people living in Missoula County, 72,000, or 90% of them, live in the urban area.

"The purpose of all cities until now has been to develop the economy; the purpose of the ecological city is to develop the ecology. Our present cities, east and west, embody the culture which asks, How can we exploit the resources of our natural environment to develop and improve our economic relationships? This must be turned around to ask, How can we develop and improve our ecological relationships by exploiting the mechanisms and resources of our economic system?"
—Paul Downton, keynote address First International Ecocity Conference *1990*

Too many American environmentalists (and others) place value away from where they live, see Nature not as their home but as the place where humans cannot be without ruining it.

Yet the ideas of sustainability are relevant and important to Missoula today. Simply living here as a flight from the problems of large cities only postpones those problems. In fact, such movement from urban areas has made Missoula an urban area itself, with attendent urban values and problems. Eventually, those conurbations will impact us, taking, for example, our water, or shipping to us their waste for disposal. They already consume the natural resources we see as local amenities. We cannot hope to continue in unsustainable ways ourselves and hope these cities will change. People will always flee here, causing pressures on us as well, locally. Considering

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[3] In addition to Peter Berg, Jane Jacobs, Murray Bookchin and especially Lewis Mumford have written well on this. See also the cover story section "Cities Don't Suck," *Utne Reader*, 65, Sept./Oct. 1994.

that unsustainable urban areas consume the lion's share of resources and produce vast amounts of pollution, it seems clear that we will not be able to have wilderness if we do not have sustainable communities.

It is also true, sadly, that we already have some "city" problems: air pollution, housing shortages, threats to open space, traffic problems, etc. And these are increasing. Some of the solutions being attempted in large cities — rail transit systems, for example — will not work at our scale. But many suggested here will.

Also, in many important ways, sustainability can be applied best at the scale of a city and its region. This is particularly the case with an urban area the size of Missoula, which is not an impossibly large metropolis. By combining the advantages we still have — flowing rivers, wild lands, the potential for human scale — with intelligent new options, we can make much larger strides towards building a sustainable community.

But what does that mean, to build a sustainable community? And what are the practical ways people have to do so?

To define what community sustainability means, we first will define sustainability. This will

require an exploration of what carrying capacity means and what a hinterland is for an urban community. Another part of what sustainability means involves justice. As we get down to applying these concepts, we will look at two basic approaches which offer up some strategies. The first is looking at the city as an ecosystem, and this leads to the strategy of integration. The second approaches the design or lay-out of communities. We will see how the relationship between land-use and transportation — which one writer calls the "auto/sprawl syndrome" — effects sustainability. We will also see how the social lay-out of communities, in particular the need for vibrant neighborhoods, plays a part in creating sustainable communities. From these we see strategies to re-design communities. When we turn to projects attempted in other parts of the country, we see various efforts at design, from entire communities and neighborhoods to individual buildings and landscapes.

The term "sustainability" has been kicked around quite a bit, with people deciding to define it in nearly any way it suits them.[4] The term emerged

[4]While the definition I use is well-established, the term nevertheless has been appropriated in many ways. I suspect this is a result of the international involvement of development interests — who want to emphasize their own concerns — as well as various national organizations (each with their own agenda) in what usually is hoped to be a consensus-oriented process. However, when the term can be defined as it was at the Governor's Conference as "moving ahead at a steady pace" it loses any significant meaning. (Webb Brown at the Governor's Conference, 1994). As

from United Nations studies in the last several decades, culminating in the UNCED "Earth Summit" in Rio in June 1992. The U.N. World Commission on Environment and Development defines it in this way:

> In essence, sustainable development means meeting the needs of the present generation without compromising the ability of future generations to meet their needs, and meeting human needs implies recognizing each person's right to a standard of living adequate for health and well-being, including adequate access to food, clothing, shelter, medical care and necessary social services (as stated by the Universal Declaration of Human Rights).

To meet our own needs without compromising the future means we must not exceed the limits of the ecological systems and processes upon which we depend.

Sustainability begins with the ecological base upon which everything else stands. Without air, water, energy, land, plants and so on, humans could not begin (let alone sustain) a community. Further, humans desire living Nature for deep needs which extend beyond mere materialist utility.

"We are therefore concerned here with a time-and-space-bound cultural-historical process, by means of which a population gradually becomes aware of its identity and its future through a re-orientation of its value-system." —Jan Tanghe et al. The Living City *119*

"Habitually, people treat the realities of personality and associations and city as abstractions, while they treat confused pragmatic abstractions such as money, credit, political sovereignty, as if they were concrete realities that had an existence independent of human convention." —Lewis Mumford The Culture of Cities *7*

WHERE IS OUR 'HINTERLAND'?

a result, this highly politicized term has lost favor among most working in the field. I retain it in this paper because the work I'm drawing on, including my own, used it, and no better term is readily available.

One way of phrasing this is provided by University of Pennsylvania architect and planner, Tim Smith, as "finding the carrying capacity and learning to live within it."

The term "carrying capacity" comes from ecology and refers to the limits of a given ecosystem to support a species: "The maximum population that can be supported indefinitely in a given habitat without permanently impairing the productivity of the ecosystem upon which that population is dependent." (White and Whitney, 9)

Generally speaking, an ecologist will investigate one critical factor in an ecosystem to determine its carrying capacity. This is usually enough. They will pick the element which creates the limit, usually the one necessary ingredient which is in the shortest supply. If an organism needs a specific nutrient (among many others) which the ecosystem has only a limited amount of, then it cannot expand beyond the use of that nutrient regardless of the supply of all other elements. For example, the moose population on Isle Royale was found to be limited by the availability of sodium, even though there was an abundant supply of white birch, a favorite food. (Botkin, 31)

Sustainable practices:
1. Use materials in continuous cycles
2. Use continuous reliable sources of energy
3. Come mainly from the potential of being human (i.e. communication, creativity, coordination, appreciation, and spiritual and intellectual development).

Non-sustainable uses:
4. Require continuous input of non-renewable resources
5. Use renewable resources faster than the rate of renewal.
6. Cause cumulative degradation of the environment
7. Require resources in quantities that never could be available for people everywhere
or 8. Lead to the extinction of other life forms.
--VANCOUVER GROUP[5]

[5]The author received this from an unknown environmental group in Vancouver, Canada. The group was proposing a standardized definition of sustainability. Unfortunately, the postcard was lost, so the author cannot be more specific on this source. Sorry.

For humans, the basic factors are food, resource supplies (including energy and water) and waste. One factor in any ecosystem that determines its carrying capacity is its ability to absorb (or pass on) waste. "The carrying capacity of human populations will ultimately be constrained by the availability of inputs of energy and matter and the efficiency with which the latter can be metabolized and recycled," say Rodney White and Joseph Whitney of the University of Toronto (9).

Urban areas in themselves are in no way self-sustained — human settlements rely on resources and support from outside — i.e. their hinterlands. White and Whitney go on to ask, "To be sustainable, settlements must not exceed the carrying capacity of their support regions or hinterlands. But where are these hinterlands and how have they grown and changed over time?"(9)

Until fairly recently, cities were supported by the resources immediately surrounding them: water from their watershed, food from fields within reachable distance, and limited by the ability to recycle or transport waste.

Historically, cities drew resources mainly from their own bioregion. Because water and waste are key determinants for carrying capacity, cities were commonly linked to their watersheds. Of course,

other key resources, such as wood and other building materials, arable land or other food supplies (e.g. the ocean) and even living space, function within a bioregional framework. Cities and their civilizations have collapsed when they overextended their hinterlands, either by depleting or destroying the local bioregion or by becoming reliant on distant imports, or both. (Rome is a case of the last.) (See Ponting)

A city's hinterland consists of its support region, however extensive it is and however configured. The limit of a hinterland is the carrying capacity of that support region. As technology advanced, developed countries were able to expand their support region, using more of the outlying carrying capacity, including "piracy of overseas carrying capacity extend[ing] the hinterlands of some settlements far beyond the boundaries of individual nation states." (White and Whitney 11)

Cities now depend on not only a larger hinterland, but a multifaceted one, in complexly differing spatial arrays. For example, Los Angeles draws water not only from its own watershed, but in a series of engineered expansions, from an area that amounts to 1/12th the country, covering northern California, and the Colorado River systems. (Lyle, 25-31) Even these far-reaching resources are

nevertheless all in relative proximity to the city, that is directly linked by physical extension. Similarly, many wastes, such as storm run-off, are deposited nearby. On the other hand, many material and energy resources are drawn from sites all over the planet. Proximity is not a factor. For most cities, food is also globalized. In fact, this is a problem in Third World countries which cannot encourage local food production because of low-priced imports (and even food aid). Also, some environmental impacts or wastes are de-linked from the cities, for instance when the pollution from toxic industries is concentrated in the area of production (such as Louisiana's "Cancer Alley") but the products used elsewhere. Again, this is especially a problem in former colonies.

So, Missoula, for example, appropriates the water carrying capacity of this aquifer (and as of now little beyond it), but draws on a food hinterland that includes Central America (beef, coffee, bananas, winter fruit), California (winter vegetables), and the midwest (grains), and draws on the energy resources from eastern Montana (coal-fired electricity) and various oil sources including, no doubt, the Middle East.

We see, then, that some key elements are fairly easy to apply a local carrying capacity idea to—

"A green city is a living city by definition. It is an existing city, where the full potentials of all the intricately interconnected forces of nature are realized. In a sense, a green city is complete in its survival capacity. Input and output of energies are well-balanced; or even better, output of energy results in a surplus of value.

"Such a city is an agglomeration of biological material and cultural resources with a maximum by product of harmoniously nested relationships." —Rashmi Mayur, from Green Cities ed. David Gordon, 38

water and the waste economy, for instance, and building materials to some extent. But other areas, energy and food, for instance, resist, because the actual carrying capacity they draw from is far from easily grasped.

But the mere fact that we cannot easily see them does not mean they cease to be important. Rick Wilson, of the British Columbia Roundtable on the Environment and the Economy, points out that the level of resource use in Vancouver is such that 10 acres are required to support every person. If every person on the planet consumed as much, we would require 2 1/2 planets. (Governor's Conference)

Even in resources which have obscure hinterlands, such as food, the development of local means towards self-reliance will be beneficial. We should develop an understanding of the extent of our hinterland (as Wilson has for Vancouver). But we should also begin to restructure in order to work within a more local region, with the aim of staying within its limits ultimately. Also, since our supports must come from somewhere, we must know that even though we can create a community that exceeds a local carrying capacity, we cannot exceed the carrying capacity overall. The same actions which help a community fit within a local carrying capacity also effect the larger system.

It is important at this point to reassure readers who may misinterpret this as a call for closing out the world and seeking local self-sufficiency. Although self-reliant communities completely confined to their own bioregions have existed in the past under much lower levels of technology and population (and even those often had extensive contact with other communities, as the far-reaching trade routes of North American Indians attest), the goal here is not necessarily to confine resource use to our own bioregion. We can identify four major types of resource flows: material, energy, currency and information, noting a hierarchy to the extent to which the four can be energetically transferred. Material requiries transportation and is therefore most efficiently kept local, while information can be transmitted electronically and therefore on a global scale. (Fisk, 1988)

The important thing to understand is that a human settlement such as Missoula cannot use more resources or create more waste than the carrying capacity of its hinterland —no matter how extensive or complex— and be sustainable. Aside from the substantial environmental burden of the transportation system and apart from absurdities such as locally grown food or logs being shipped thousands of miles away to be processed and shipped

back for local consumption, the problem with a far-flung and obscure hinterland is that it is difficult to know our carrying capacity, let alone act on it. Who's to say whether the vegetables we import are beyond the carrying capacity of the global food system? Even if unlimited energy and resources could flow into our community from around the globe, the two other constraints in carrying capacity would come into play: waste and space. Also, it is absurd to think of far away places as uninhabited, available for our use. Most of the places from which we borrow carrying capacity have local populations.

SOCIAL JUSTICE

"Sustainable communities work to live within physical and biological limits," according to planners Timothy Beatley and David J. Brower, who see sustainability as "a fundamental organizing principle against which to evaluate all of a community's proposed actions and policies." They stress this must be "viewed in an integrated fashion. Sustainable communities can no longer treat land use, the environment, housing, transportation, social services, and safety as isolated issues." (16)

Furthermore, they emphasize that a sustainable community must be "a socially just city."(18)

The concept of a sustainable community always includes the idea of social justice. The concept of social justice is included explicitly in the UN definition: there is an intergenerational equity in the goal of not compromising the future. If we begin with the ecological and come to understand the limits of the carrying capacity, we do not stop there. The process of learning to live within those constraints must be framed by concerns of justice.

"Social justice is the gateway to sustainability," according to Tony Dominski. "Three imperatives will form the basis for eco-city evolution: the need for social justice, prosperity, and a healthy economy. These are sometimes viewed as separate and even contradictory, but are merging in the overarching vision of sustainability." (Walter et. al. 17)

In order to stop exploiting the planet, we must stop exploiting the humans who live and work on it, especially those in the third world. In exploitative situations, people often must make choices that damage the environment just to survive. Beyond that, however, many unsustainable practices are supported by — or generated by — unsustainable economic and social systems. And since local self-reliance is a key element in building sustainable communities, democratic and socially just societies must also be built into human communities.

Also, the nasty consequences of our unsustainable practices take the greatest toll on those who can least absorb it: the poor, the elderly and the children. In recent years, calls for environmental justice have made clear the degree to which America's ongoing racism is also played out in the unequal distribution of pollution.[6] Some injustices may be structural — those who can afford to escape the degraded environment will leave that fate for those less wealthy. And, in Missoula, we are "booming" because of it. Missoula is attractive to those who can afford to (temporarily) sidestep our environmental and social problems. But — as the housing shortage shows — this pressure creates problems of justice in our community as well. Will Missoula become the "electronic" suburb of our disastrous cities?

Issues of access often turn on justice questions. And, for American environmentalists, the question of how the shift toward sustainability affects those least able is vital. "Sustainability" for the rich is not true sustainability. It has another name.

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[6]See Bullard, R.D. 1990, *Dumping in Dixie: Race, Class, and Environmental Hazards*, and EPA 1992, *Environmnetal Equity: Reducing Risk for All Communities*. Bullard documents the siting of most of the hazardous waste facilities in the south in Black communities or neighborhoods. The EPA found "clear differences between racial groups" in both environmentally caused disease, such as lead poisoning, and exposure to pollutants, hazardous waste and pesiticides, with minorities and low-income populations suffering more.

Fortunately, most truly sustainable practices create equity and benefit the disadvantaged.

THINKING ECOLOGICALLY

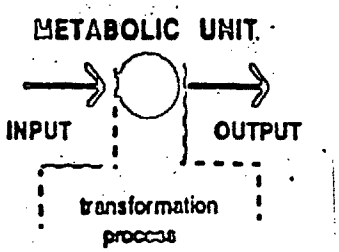
There are two approaches for applying the concept of sustainability to communities. One is to look at the environmental significance of urban relations. Consumption patterns, land use, transportation systems and other functional elements of a city have drastic impacts on the environment; in a sustainable community, we consider in advance how to develop those elements sustainably. Another way of looking at a sustainable community is to conceive of the city as an ecosystem, or part of an ecosystem, conceptualizing the way it works as if the city were in some way organic.

"Sustainability implies balances and permanence: a balance between people living in a community and the jobs available there; a balance between renewable resources continuously available locally and consumption patterns; a balance between maintaining the natural environment in good health and the needs of the human community which lives within it. Like an individual in balance, a sustainable community will be healthy: socially, economically, and biologically . . . ." —Sim Van der Ryn from Sustainable Communities ed. Van der Ryn and Peter Calthorpe, 58

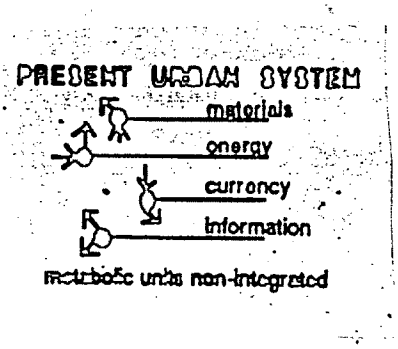
It is in this second way that Brower and Beatley mean that a sustainable community must be viewed as integrated. One of the most powerful conceptualizations of this idea has been developed by landscape architect and builder Pliny Fisk III of Austin, Texas' Center for Maximum Potential Building Systems.

Fisk views the urban environment as consisting of metabolic units, a slightly more than metaphoric perception of homes, businesses, people etc. as

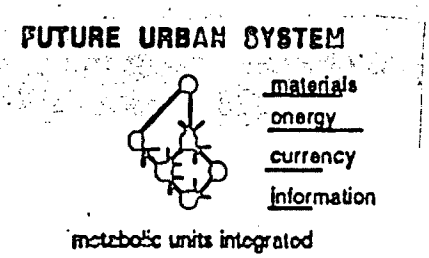
energy users "which in ways mimic processes of healthy natural systems." (1988, 29) The metabolic unit is a point of transformation, where something (an input) is changed into something else (an output). By conceptualizing it in this way, Fisk forefronts two aspects of the process. First, he unites the concepts of goods produced and waste, since both are outputs. Second, he traces the flow of resources through the system.



"Conservation through integration" is his keystone. Waste is created when outputs are not connected as inputs to other, adjacent, metabolic units. The more interconnections in a system, the more stable, and the more sustainable. Waste is a resource in his model. "By thinking of what is normally considered waste as a potential resource from the start we are able to establish new sets of networks by infilling metabolic units (particular enterprises) which bring together normally unattached entities, thus producing a more stable urban environment." (21)



This concept, as suggested in the above, applies economically as well as biologically. "My fascination is . . . with [the] synergistic potential to develop an ecologically-based regional economy, and with reversing a mindset that focuses on the negative



aspects of economic and environmental problems instead of their potentials." (35)

He applies this process model at various scales, the largest being the city/region. At one level, cities are the metabolic units in a region. Fisk also generates the idea of "city gates." In the old days, he writes, city gates acted as filters, allowing in resources and excreting wastes. He reconceives the gateway as any entry or exit point for this flow of resources.

> The economic vitality of the city is more and more at the mercy of those whose interests are not so much what becomes of the city as whether it serves a frenzied global economy.
>
> Today we need city gates to be even more than those castle and hamlets of bygone eras. If our modern cities are to survive, we need to start again being selective as to what enters and leaves them. (29)

He is not describing a reactionary closing out of the world, however. He pictures the gates being metabolic units that connect (bridge) the city and the rural surrounding. He describes a case:

> These functional 'bridges' become the city/region of the future. Liquid waste is treated as an asset to feed water treatment greenhouses that, in turn, produce flowers and animal feed. This treatment process is then connected to the fields where the water is joined with the built-in composting unit which transforms the city's garbage to valuable mulch and water-retaining medium for the nutrient-rich liquid waste. So what is usually

considered a farm is now a waste treatment plant and water supplier. (34)[7]

Of course, the transfer from waste to resource places certain logical constraints on the waste. For example, toxic water is no good in this system. Fisk says, "Our view of how we accomplish our everyday work changes. We become more aware of the total cause and effect of each design decision, where things come from, where things go." (25)

This overarching strategy of looking for connections can be a powerful general principle, especially when combined with a sensitivity to the limits of the carrying capacity.

ACCESS IS KEY

The other approach to applying sustainability to communities, that of looking at the environmental significance of urban relations, focuses on elements of the physical design of the community, on the one hand, or its social relations on the other.

Richard Register, director of Urban Ecology in Berkeley, California, and author of *Ecocity Berkeley*, describes a restructuring of physical elements to make the city more sustainable. Although he often concentrates on what an ecocity would look like, he does suggest criteria for current action. His

[7]This is almost a futuristic recapitulation of a traditional Javanese farm described by Todd and Todd.

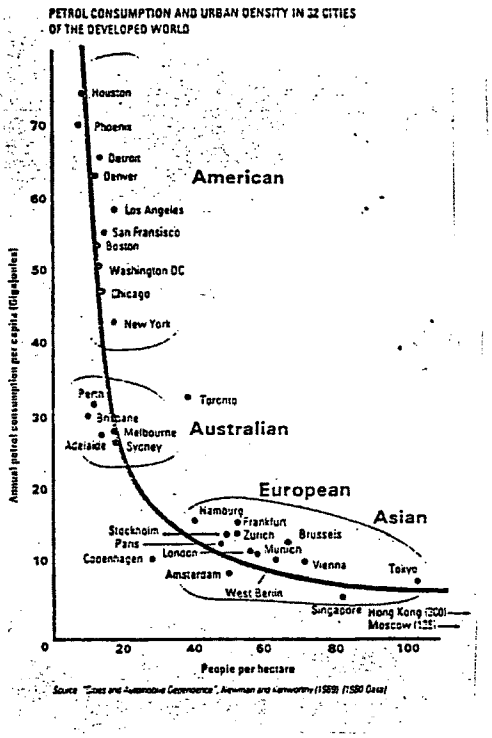
analysis of the underlying environmental faults of current urban development identifies the automobile as the key culprit. As much as half of the urban landscape is devoted to the auto, which not only uses a non-renewable energy source and creates pollution but also facilitates urban sprawl. Register, of course, is not alone in his concern over sprawl. For example, in the Feb. 1992 *World Watch*, Marcia Lowe writes about the problems of sprawl, and points out that the city of New York has increased its population 5% in the last 25 years but has expanded its area 61%. Newman, and Newman and Kentworthy, also have much to say on this, documenting an exponential increase in the use of energy and emission of pollutants as density decreases in auto-oriented cities.

"What must count for knowledge in the design of a sustainable culture is ecology — a balanced connection and adaptive fit between the products of the human mind and the processes of nature."
—Sim Van der Ryn
Sustainable Communities iv.

Register, however, describes what he calls the auto/sprawl syndrome, getting at the relationship between sprawl and auto-oriented transportation networks. The widespread use of autos makes sprawl possible; on the other hand, sprawl makes cities auto-dependent. A comparison between newer Sunbelt cities and older cities underscores this: it is almost inconceivable that a resident of Dallas or Houston, Texas, could subsist without a car, because the cities are so spread out. Further, although they have insufficient and ineffective mass transit, it is also

difficult to conceive how transit could be well created.

Missoula, too, has its own sprawling character. While not as vast as New York City or L.A., many areas of town can only be readily accessed by cars. Development has "leapfrogged" from the city center to outlying hills, such as the O'Brien Creek and Grant Creek areas. Also, development in the Bitterroot Valley has dramatically increased. A ten-mile commute (from Lolo to Missoula) seems small for a former resident of a large city. However, we have no transportation means available other than the car.[8] Also, in some of the other areas "jumped" over, we have low-density development which is nevertheless consuming open space and requiring residents to travel by car.



Register's strategy for dealing with the auto/sprawl syndrome is to create denser cities. (8-9) "One of the most important axioms of ecology is that all things are connected in a complex web of relationships. . . . Since all things are connected (if often very subtly), getting back to deeper causes provides linked solutions to multiple problems: restructuring for diversity at close proximity makes restoration of natural habitat and regeneration of

[8]Recently, the Missoula Urban Transit District has proposed extending its bus line to Lolo.

local species possible and helps create cultural variety." (11) Efficient use of developed land makes open space available.

The keystone of his strategy he calls "Access through proximity, not transportation." That is, you get to something because you are almost there.

From this new spatial structure follow several things. The first is high-density, mixed use building. Although Register has a fancy for skyscrapers, Lowe points out that even a density of 15 units per acre makes a shift to bus transit feasible. In Missoula, current R-II zoning (most residential neighborhoods are R-II) allows up to 16 units per acre. However, the lay-out of the building, especially the distribution, is also key. The current zoning may allow up to 16 units, but it allows no multi-unit other than duplexes, as well as requiring substantial separation between buildings and property lines. These provisions prevent clustered development. Clustered and multi-unit development more effectively preserve open space, by conserving the amount of land developed and leaving both open space in developments and land undeveloped elsewhere. This kind of building can also provide energy and material savings. Also vital is the mix of uses, because people need to access work, shopping, school, recreation and so on. An ideal development

"The concept of accessibility acknowledges that the demand for travel is derived from the demand for activities. The concept of mobility ignores the derived nature of travel demand, focusing instead on the ability to travel, as though sheer movement were an end in itself. But mobility is only the means – activities are the end and accessibility the key."
—Susan Handy, from Access, Fall 1994, University of California Transportation Center.

for Register would feature first floor commercial and business uses, upper floor residences, and rooftop garden parks. Mixing industry with living space coincidentally calls for clean and healthy industry.

Van der Ryn agrees, "A true 'sustainable community' or 'ecological city' is much more than a dense efficient land-use pattern. It incorporates local food production, and waste recycling. Its size is limited to its watershed, and its capacity to recycle wastes without damage to the environment. Local economic value created stays largely in the community. Dollars are recycled locally." (in Walter et al. 68)

Another element in Register's ecocity is that it be "green and wild." With less use of the auto and less sprawl, and with high-density cluster development, more land is available for both usable green space and wild areas.

In order to be more self-reliant, and rely on less transportation energy, and to provide nurturing work, much more food would be produced in the city. Actually, even purely "open" space can, if a culture chooses to, be productively and intensively used without even noticeable impact on its openness — e.g. trellised gardens improve the greenway path between buildings.

"Ecological Planning Principles for Sustainable Development

Principle 1: Protect, preserve and restore the Natural Environment

Principle 2: Establish true-cost pricing as the basis of economic viability

Principle 3: Support local agriculture and local business, products and services

Principle 4: Develop clustered, mixed-use, pedestrian-oriented ecological communities

Principle 5: Utilize advanced transportation, communication and production systems

Principle 6: Maximize conservation and develop renewable resources

Principle 7: Establish recycling programs and recycled materials industries

Principle 8: Support broad-based education for participatory governance."
—Citizens Planners Project of Ventura Ca. in Walter et al Sustainable Cities 19-26

With less sprawl, more undisturbed wildlands are possible. Not only does this allow for the preservation of what's left but also the restoration of what's gone. Most writers promote wildness inside the city. Berg describes the peregrine falcons now inhabiting tall urban buildings. (1990) Perhaps the best example would be the possibility in Missoula of a wild corridor along the river. We have had osprey nesting and hunting at various points along the river. Recently, some people have begun efforts to restore the peregrine in downtown Missoula. (Matthews)

While Register's physical restructuring allows for these things, they themselves are active contributors to livable cities. Trees especially directly combat air pollution, and Newman notes "...extensive landscaping along roads ... is not only useful for traffic calming but is part of the urban ecology." (1993, 10) Open and wild spaces nourish us in complex ways. Greenways are also community meeting places, nurturing "street" life and citizenship.

While I have indicated Register's physical restructuring, I should emphasize that he also stresses throughout the other perspective I identified, that of looking ecologically at cities. He discusses bioregions, biology and the natural underpinnings of any human settlement. For example, he details a

"green hierarchy in ecocity planting" with native species having the highest priority followed by useful species with ornamentals and lawns much lower. (17)

Native plants use less water and require less care, especially needing less (or no) fertilizer and pesticides. The modern American lawn, a manicured monoculture of grass, requires enormous input. The constant struggle to keep "weeds" (including native plants) out is one indication of how intensively artificial that landscape is. By following the inclination of the local natural environment, using native species and allowing a mix of plants, a beautiful lawn can still be created which requires less struggle and is safer for the environment.

The two perspectives each offer something of merit. Thinking of the city as a system is a powerful tool for understanding the interrelatedness of its elements. Zeroing in on specific relationships within the design of the city helps in understanding how the system can be worked on and where first steps can begin, within the context of the system as a whole.

"The human scale is never an absolute one: for it is determined, not alone by the normal dimensions of the human body, but by the functions that are facilitated and by the interests and purposes that are served." —Lewis Mumford The City In History plate 59

HUMAN SCALE

Another of Register's key elements is neighborhoods. After all, people congregate in cities for more than just mere survival. While human settlements must not exceed the carrying capacity of

their hinterland, urbane life in cities calls for other characteristics lacking in contemporary communities. Culture, information exchange and commerce all thrive in a diverse social environment. Street life is not only more healthy, but safer and more vibrant than a "drive-through" alienated existence. Even the fostering of nature in the city serves human needs beyond mere survival. And critical among all these is the fostering of political life.

All of these can be thought of under the concept of creating communities which are human scaled. Wide expanses of concrete, glittering skyscrapers and services separated by miles have a scale intimidating to humans, as do elected officials representing tens of thousands of citizens and bureaucracies billeted in labyrinthine quarters behind stone walls. Human scaled communities are actually easier to understand than to describe. One important idea, though, is that for a community to have human scale does not require it to be small — a large community can be efficiently divided into human scaled districts, such as wards, precincts or neighborhoods. Mumford describes the "cellular" structure of late Medieval Venice, a city of over 100,000, divided into human scaled neighborhoods, each with a plaza, church and guildhouse. "Venice pushed even further, right into our own age, the

organization by neighborhoods and precincts whose recovery today, as an essential cellular unit of planning, is one of the fundamental steps toward re-establishing a new urban form." (1961, 321-328)

Creating or preserving life-supporting neighborhoods is a common strategy in almost every conception of sustainable communities. Many citizen needs and services can be provided at a neighborhood level, which then makes them accessible by foot or bike. More importantly, a renewed sense of community, with "street" culture, pedestrian activities, shared resources and so on, bolsters a sense of place. Another common theme throughout is empowering neighborhoods, creating and preserving democratic institutions at the most local level.

"At present, planners are locked into fairly simplistic hierarchical models: city centre, regional centre, suburban centre, neighbourhood centre, home; freeway, arterial, sub-arterial, collector, residential street. But the neighbourhood is a city within the city.

"The hierarchical view has led to zoning that divides the city into segregated parts which are single purpose...." (Engwicht, 124)

One of those proponents is Australian David Engwitch, who focuses on the social relations of a community by putting the human needs first. He follows Register's perspective on cars. His basic premise is that cities exist to increase exchanges and to minimize travel. He means exchanges of all kinds, not just economic. A conversation on the street is an exchange, as is dropping your child off at school, for instance. Most cities seem to be focused in the opposite way — to increase the speed and efficiency of traffic.

Engwicht sees in the building of healthy neighborhoods the possibility of increasing sustainability in a number of ways already mentioned. To do this, the neighborhood needs to define itself and establish a hub. This hub ought to be within walking distance of the entire neighborhood and should include the diversity of services needed. Importantly, neighborhoods should build a strong street life.

As centers of work and life, neighborhoods should actively help build the commons. One of Engwitch's most interesting ideas is developing a "neighborhood promenade loop." He describes one in Boulder, Co.:

> This loop connects important activity centres in a neighbourhood: school, park, shopping centre, library, day-care centre, historical spots and transit stops. It runs on just one side of the road to save construction costs and to concentrate pedestrians. The promenade loop is fitted with seats, lighting for night safety, landscaping, activity centres (exercize areas, outdoor chess boards, play equipment), plaques telling the history of long-term residents, community information boards, etc. (135)

He proposes that every neighborhood have one.

SOME PROJECTS TRIED ELSEWHERE

There are numerous examples from around the country (and the world) of applications of some of

these ideas. A great deal of work has been done to improve the environmental efficiency of households. One of the leaders in the field of building materials is the Missoula-based Center for Resourceful Building Technology. Others have worked on solar energy systems, water systems that reuse some wastewater for gardening, or conserve water use.

Efforts at the neighborhood or community level include Davis, California's, successful Village Homes, a pedestrian-oriented solar housing development, now more than twenty years old.

Another strategy being tried in many places is cohousing. This is a jointly developed housing complex which usually features small independent houses with a common building where residents share meals. Often pedestrian-oriented with a good deal of greenspace set aside, some are renovated inner city buildings.

One of the most exciting efforts is the Los Angeles Eco-Village. It was conceived to provide an alternative redevelopment for inner-city L.A. residents. Originally the plan was to build a new community on vacant land that had been a landfill. After the 1992 riots, however, the group decided to shift its focus to the existing neighborhood and re-build there. The project is working on creating an entire community. Not only is it working with a

mixed use of land but also socially diverse residents. Cooperatives and cohousing are being developed, but so are a credit union, an Eco-Business incubator and a barter exchange system. They are planning extensive street "calming" (slowing car traffic to encourage pedestrians), street markets, organic agriculture projects, and water conservation systems. Key to this, of course, is a vibrant community center.

Architect Peter Calthorpe has developed the idea of "pedestrian pocket" developments. These are eco-communities linked by transit to larger cities; Calthorpe calls them "post-industrial suburbs." He has designed some 40,000 acres of sustainability-oriented developments around the country. Other strategies include community land trusts to create housing and ecological lending institutions to make new kinds of loans available.

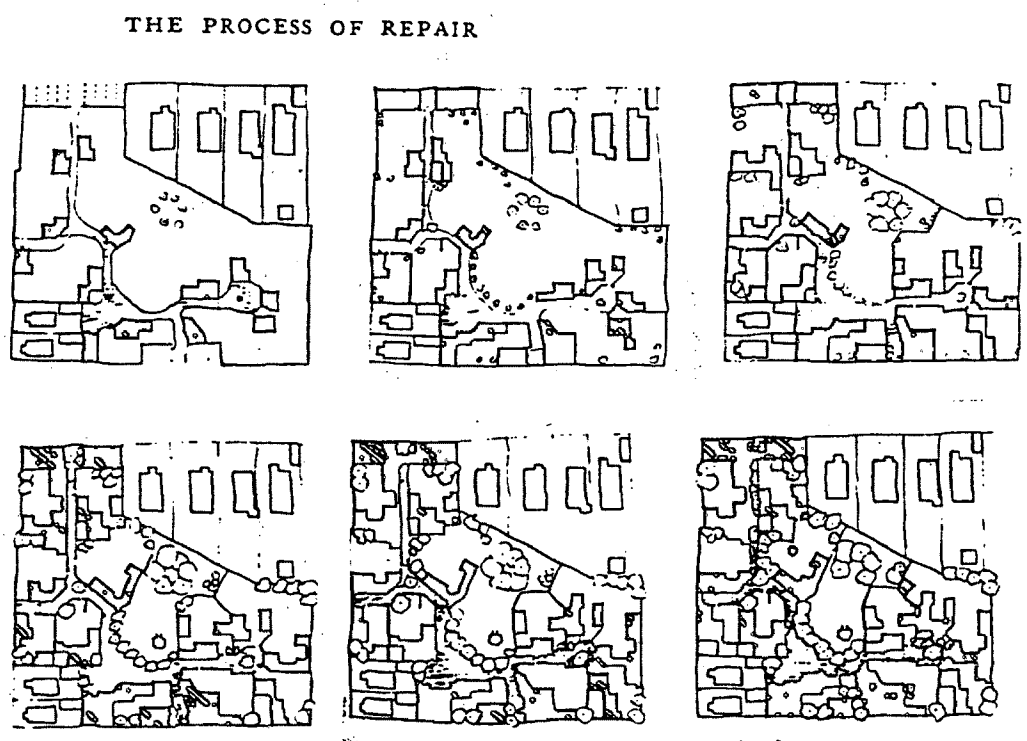
At the city-wide level, cities such as Melbourne, Australia, and Toronto, Canada, have begun to re-shape their development processes. In this country, Austin, Texas has adopted strict "green" building codes. Andrew Euston, energy officer for the U.S. Department of Housing and Urban Development has operated a program to assist small communities reaching for sustainability. One of the first in that program was Richmond, Indiana. That city launched a number of new efforts, from

rehabilitating houses for energy efficiency to creating a local food fair to connect local growers with local restaurants. Sarasota, Florida, formulated a community-wide vision for the year 2020, including a comprehensive plan and an economic development strategy. Working with a housing group, they have built several prototype houses.

Looking at building sustainable communities as a set of goals rather than descriptions, we can combine important elements of all the above approaches. Some changes in our communities can have multiple effects. For example, by creating neighborhood hubs, we help make neighborhoods more people friendly, allow for more self-reliance and facilitate neighborhood-level governing. The building of public spaces (re-building the commons) is one of the most important design steps we can make. The preservation of wild and open space, to use another example, requires a community-level commitment that many might see as contrary to the possible parochialism of neighborhood groups, although it does not have to be.

It is important to see how these general ideas can be played out here in Missoula. First we shall look at how Missoula's hinterlands have changed over time, specifically how key resources have

developed unsustainably. In recent decades, even as Missoula developed unsustainably, citizens have attempted to mitigate that kind of development, especially through planning. We will examine how citizens have articulated in various planning efforts a vision for a sustainable community in Missoula. Unfortunately, those efforts have not been successful. We take a close look at how planning has failed to bring about the goals of citizens and examine the limits of planning as a way of moving towards a sustainable community. In the final chapter we turn to the vital question of what can be done and suggest some concrete possibilities.



The slow growth of twelve houses

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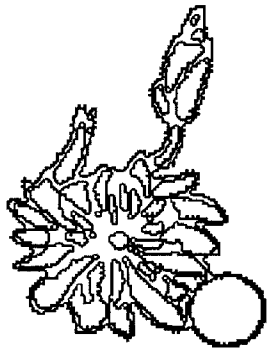


CHAPTER 2:
A HISTORY OF MISSOULA'S ENVIRONMENTAL INDICATORS

November 28, 1994. Every winter morning at the State Lands complex in the western end of town a weather balloon is sent up, measuring changes in the atmospheric temperature on its way up. Health Department officials downtown calculate from that whether an inversion is developing and at what temperature it will "burn off." Today it will burn off at 30°, and since the forecast is for a high of 36°, it is unlikely that the valley will violate federal air quality standards.

To make sure, at several points in town are monitors which measure pollutants to see how much is accumulating in the air. During an inversion, a layer of cold air can sit 200 to 500 feet above the valley floor, trapping pollution. On such days, looking down from one of the surrounding hills, you can see the courthouse spire sticking up through the cloud of smog.

In a corrugated tin shed, every hour of every day, a high-tech device draws in air and measures it using infrared light, examining the change in the air after it passes through a chamber in which carbon monoxide molecules are absorbed. The results are transmitted electronically to the computer terminals in the health department downtown. If the air contains more than nine parts-per-million in a 24-hour period or 35 parts-per-million in any given hour the community violates federal air standards; health research has shown that higher amounts pose a serious health threat.

In a way, nothing says more about Missoula's history of sustainability (or unsustainability) than the point in 35 square mile flatlands between the Clark Fork and Bitterroot rivers and the surrounding hills designated on government maps as the intersection of township 13 north,

range 19 west, section 28, 29, 32, and 33. Before white settlement, the native people of the Salish tribe came here every spring for the bitterroot harvest. They also picked the camas that spread like a carpet over the valley.

That five valleys and two major rivers come together in the Missoula valley has made it a place of connection throughout human history. Its geological shape also makes it prone to winter air inversions, not an issue for early people. As Alwin points out, "In sparsely populated areas, inversions have little consequence other than prolonging cold weather, but in more densely populated valleys they can cause serious air pollution problems. Along with the cold air, other pollutants including car exhaust, particulates and wood smoke, are trapped below the inversion and too often reach levels that can be health hazards." (26)

But the native peoples' approach contrasted sharply with what was to follow. It seems likely that the Salish practiced some land management as their relatives did along the Washington coast. The potato-like camas requires fire. Fire also favors bunchgrasses, deer, buffalo and elk.

However, the Salish only used the valley for temporary residence. Even after settling down to farm, they chose the Bitterroot and Mission valleys to live in. One writer even says that hunting parties traveled on ridge tops rather than in valleys.

The whites who began to settle in the 1860s focused on the rivers first, relying on them for transportation, energy, and waste removal as well as for water. They saw the intersection of rivers as a commercial opportunity and developed a permanent settlement around that. The center of the new city was on the Clark Fork River, one and one half miles from the point mentioned, along the newly built military road, now an interstate

highway, and on what became a railroad line, all running roughly east-west. However, connection to neighboring valleys, following the topography of connecting rivers, followed roads which were not perpendicular to the grid of what became the city. The two incompatible patterns collide at the point once covered with camas and bitterroot.

Now at that intersection sits the air pollution monitor. Although this urban exchange is in the midst of the Strip and next to the Mall, it is not entirely paved over because the county fairgrounds, schools and park sit at one corner. However, development has erased all of the camas and bitterroot prairie that sustained the Salish. Three major streets meet awkwardly in one intersection. Its traffic tie-ups have earned it the name "Malfunction Junction."

The peculiarities of this intersection — the blessings of two rivers and a rocky mountain valley — have created a traffic conflict symbolic of Missoula's development history. The monitor records the fatality of exceeding our airshed.

How did we get here from there?

A way to assess the sustainability of Missoula is to examine key areas such as air, water, energy, food, materials, and waste. With the exception of water quantity, we shall see that Missoula has become unsustainable in all of these areas. Our strategy for land-use and transportation has been one driving force in that unsustainable direction — aptly symbolized in Malfunction Junction. And while most of the unsustainable land use comes from developments since World War II, the pattern or framework — physically and institutionally — and the inability to deal with these developments stems from Missoula's roots in the last century. Originally,

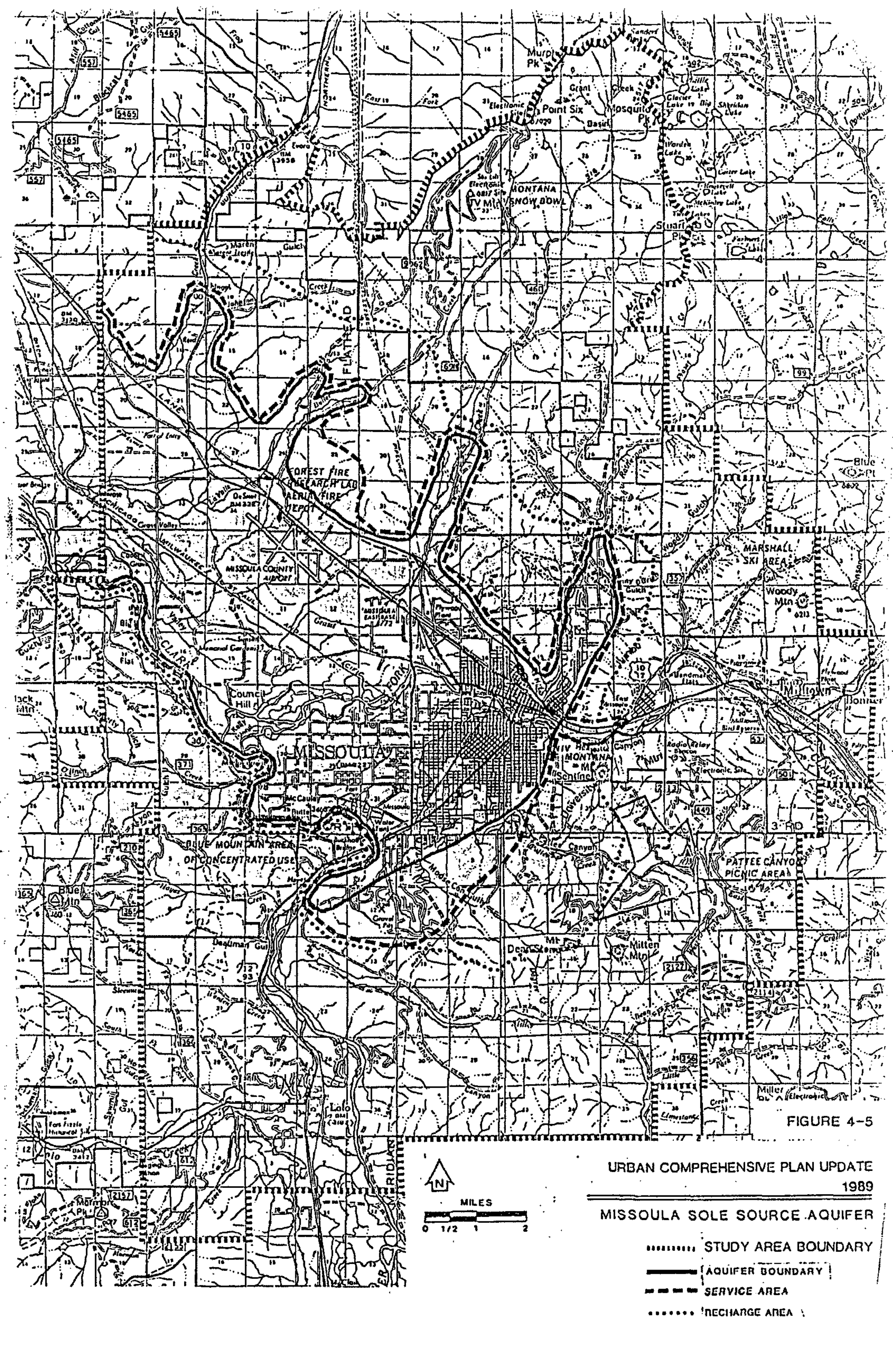


FIGURE 4-5

URBAN COMPREHENSIVE PLAN UPDATE
1989

MISSOULA SOLE SOURCE AQUIFER

the resources used by the human settlement flowed from, through and into a local hinterland which could readily sustain it, at least to a point. With few exceptions, we have never explored the limits of our immediate surrounding area as a hinterland. Instead, as Missoula became increasingly integrated with the national economy we drew on an expanded and more distant hinterland. Also, the dynamic of the larger economy is for flow-through, rather than sustainable cycles. So integration into the national industrial economy (and now the global economy) meant the dis-integration of resource flows locally. The results have had negative implications for sustainability.

THE WATER STORY

"The most common and visible medium of connections in the landscape is the flow of water... it will be useful to take a look at the flow of water through the landscape of an urban region. We can see how the movement of water ties this region to the larger landscape of which it is a part and to a smaller landscape that is, in turn, an integral part of the region." — John Tillman Lyle, 25

Some 15,000 years ago Missoula was at the bottom of 500 cubic meters of water. Over the course of Earth's history, the steep mountains and broad valleys of western Montana had been formed through dramatic upheavals. The resulting bowl-shaped valley filled with water during the most recent Ice Age as glaciers formed an ice dam on the Clark Fork River.

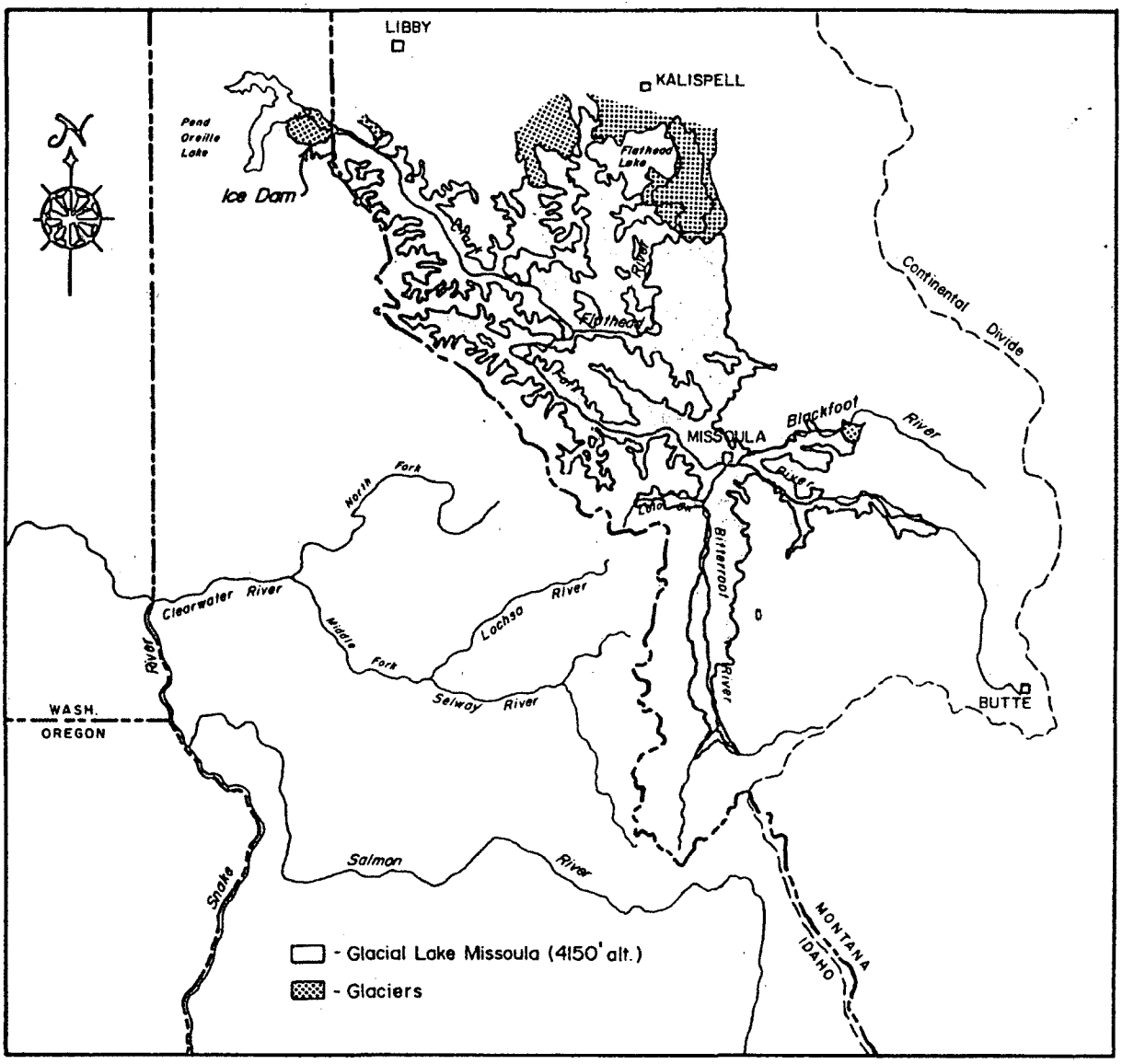
"Lake Missoula reached an elevation of almost 4,700 feet above sea level," according to Alwin. "Since its shape was controlled by the pattern of the Clark Fork drainage, its outline was irregular, with arms extending up tributary valleys, the inundated area eventually totaled 2,900 square

miles and included all of the Montana section of the Clark Fork valley to as far east as Drummond, the Bitterroot south to Darby, the Blackfoot to Clearwater Junction, the St. Regis to the Idaho line, as well as the Camas Prairie, Little Bitterroot and Jocko valleys. The Mission Valley was covered with water lapping up against the edge of the Flathead Glacier. The top 700 feet of the National Bison Range was an island in the section of the lake." (23)

The first humans we have evidence of in Missoula camped alongside the Lake at Clearwater Junction about 10,000 years ago. After the glaciers retreated and the ice melted, and Lake Missoula drained (an extended process, because the lake filled and emptied at least 36 times, sometimes cataclismically), the valley as we know it now emerged, and humans began to use it.

When semi-permanent occupation began 5,500 years ago, the story of the water was much the same as it is today. Like other valleys in the region, Missoula is essentially semi-arid. Most of the weather comes from the west, rising up over the steep Bitterroot range. Most of the precipitation falls on the western slopes as the clouds rise, so relatively little can fall on the immediately eastern sides. In the Missoula Valley, we also see snow on north sides of Mount Sentinel and Dean Stone first. In fact, the division is so sharp that a dusting of snow etches in relief Missoula's most famous landmark, the "M". The precipitation, mostly in the form of snow, that feeds water into the valley comes mainly from the north hills, which are at the western end of the valley.

By far the most important hydrological feature is the rivers, in particular the Clark Fork. More than 80% of the water coming into the



Extent of Glacial Lake Missoula ca. 13,000 B.P.

valley comes from the several rivers which converge, and 77% of the water comes from the Clark Fork itself.

The water flows in through the Hellgate Canyon and feeds the aquifer, a thin layer of sand and gravel formed more than a million years ago. According to Fox, a Precambrian belt (over 570 million years old) forms a bowl of 2,000 feet of sediment consisting of fine grained sand and gravel. On top is a thin layer of coarse gravel and sand 110-115 feet thick formed in the Pliocene (between one and four million years ago) — that is the aquifer. Water flows underground at the rate of 8 to 30 feet per day, running parallel to the river on the north side and flowing generally southwest through Malfunction Junction on its way toward the confluence of the Clark Fork and the Bitterroot. At the base of the South Hills water flows parallel to the hills. (Armstrong) Perhaps nearly 300 billion gallons of water flow into the aquifer each year. If water were used at the rate it is today, that is enough water for one million people.[1] If you were standing at the Junction, you might imagine many gallons of water flowing under your feet.

Despite the unreliability of rainfall, Missoula was able to develop by drawing on this abundant, high-quality water source that usually runs quite close to the surface. Wells and irrigation were relatively easy. Of course, Missoulians have utilized the Clark Fork and other rivers for a great number of uses, cutting irrigation ditches for instance, and for garbage

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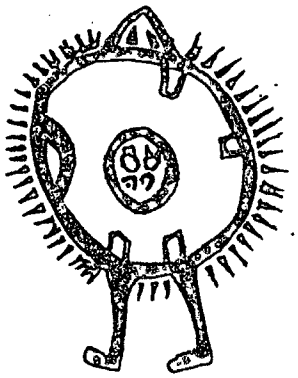
[1]There is some confusion in sources as to the actual amount of water flowing and being used. The "eight to thirty feet per day" figure comes from the Water Quality District proposal (Missoula County Health Department, 1992). Fox uses different and conflicting figures, saying at one point that water moves through "as much as 18,000 feet per day." In her table of recharge and discharge, she details some 78.82 million gallons recharged per year and 1,211.5 million discharged (which seems to indicate an ongoing net loss of water) but in her text says total withdrawn is "9.7 billion gallons per year" —though that surely must mean 19.7 billion. She uses the same proportion as the Water Quality distirct — 15 times more water than we use — but that would seem to imply from her figures that a total of 295.5 billion gallons per year was available.

disposal. As the city developed, water was therefore drawn from the aquifer for human use, and some water runs off the hard paved surfaces rather than entering the ground. The speed of flow through the aquifer itself constitutes a potential threat to water quality, because contaminants can spread quickly and enter many wells before being detected and addressed.



BEFORE EUROPEAN SETTLEMENT

When Lewis and Clark Passed through, the Junction was a prairie of camas, bitterroot and cous, and the valley was a place of connection not residence. Travelers from the coast can enter the Bitterroot Valley by climbing over Lolo Pass, as Lewis and Clark did, and from there travel north to Flathead Lake, a favorite site as it is today for seasonal and permanent residence, or head east through the Hellgate and up the Blackfoot over the famous trail to buffalo grounds. Missoula has been a transportation hub of sorts since humans inhabited the Northwest. Many tribes passed through the valley on their way to and from buffalo grounds to the east.

The Salish were fairly recent residents in the Bitterroot when whites arrived. Related to the Salishan peoples of the coast, Malone et al explains their culture was a blend of coastal and plains cultures who lived in central Montana.

> Prior to the invasions of the eastern Indians after 1600, the Salish lived in the Three Forks area and ranged as far eastward as the Big Horn Mountains. Beginning before 1700, the arrival first of

> Shoshonis from the south and then of Blackfeet from the northeast forced them to retreat westward into the mountains. By the time Lewis and Clark encountered the Salish in 1805, their homeland centered in the beautiful Bitterroot Valley. (15)

Another historian writes:

> It was the more precious to them for having provided a refuge as the Blackfeet drove them off the buffalo lands where they had once pitched their lodges freely at any season. Its climate was mild for the region; it was well supplied with bitterroot and camas, fish and game; its guardian mountains had a lofty grandeur. (Johnson 1969, 289)

When white men came through western Montana in the first part of the nineteenth century, the Salish lived in Bitterroot Valley, the Pend d'Oreilles near St. Ignatious, and the Kootenai around the lake, but none had permanent resident in Missoula. Smallpox probably had already stricken the tribes in 1780, but it definitely swept through in 1808, 1847 and 1870.

In 1855, Isaac Stevens came to the banks of the Clark Fork west of Missoula to parley with leaders of the Flathead, Kootenai, and Pend d'Oreilles tribes to settle them on one joint reservation. Stevens, newly appointed governor of Washington Territory, which included Idaho and Montana at the time, was on a quest throughout the territory to sign treaties with tribes to secure a route for settlers — and the railroad — to the coast. (Young Lt. John Mullan came west with Stevens to survey a rail route. C. P. Higgins was one of Stevens' wagon masters.) In the first weeks of July, nearly 1000 members of the tribes gathered at Council Hill, four miles west of the principle white settlement a decade later. The Salish in particular, led by Chief Victor and residing in the Bitterroot valley, were friendly towards the White men.

Stevens wanted all three tribes to settle together, but one delegate reportedly responded, "I thought we were three tribes, not one. We'll have to talk this over."

So it took a little longer than Stevens expected, but on July 9, 1855, the Treaty was signed forming one of the first reservations in the territory.[2]

It was after the treaty, however, that Missoula proper began to take shape.

EARLY SETTLEMENT

Some societies build on hillsides in order to leave the bottom lands for agriculture. We have chosen not to. The river was a dominant influence in early years. Development began on the river's edge and has spread outward. This is partly because the river has been a transportation route. Before the Mullan Road came in, the river itself was used to some extent (Mullan's crew spent the winter of 1860 in St. Regis building boats). Even when traveling by land, their trails followed the rivers through the rough mountains. Missoulians also used the river as a source of energy for mills and other industrial purposes and for waste disposal. In fact, it was not until the 1970s that the community turned its cultural attention to the river and began to see it as an aesthetic asset. The Missoula Mills, considered the founding structure of the city, used water from Rattlesnake creek by

[2]Chief Victor did not sign the treaty, however, and his band refused to move until decades later.

digging a ditch from the creek west to its operations north east of the current Higgins street bridge.

All of Montana started as public land. Prior to the civil war, the main ways public land was distributed was through military bounty (granting land to ex-servicemen) or through sales. The 1841 Preemption act allowed people to buy 160 acres at $2.50 per. But most of Montana remained unclaimed for years. Western Montana officially entered the U.S. as part of the Oregon Compromise in 1846, with Missoula originally in Washington Territory. There already were two missions and a fur trading camp established by then. Such prior claims for private property were accepted by the federal government.

More settlers came after the Homestead Act was passed in 1862, seven years after the Stevens treaty opened the land. That act allowed citizens to claim 160 acres, and, until 1891, it could be combined with Preemption Act which allowed them to buy another 160 acres. Some 32 million acres overall in Montana were disposed of under the various Homestead acts. (Peters and Johnson)

Although Missoula is the second largest metropolitan area in the state, even its nickname — the Garden City — is a tribute to the agriculturally-based roots of development here. The agricultural underpinnings of Missoula and Montana society, however, have other consequences for development. Although urban residential, commercial and industrial development began at the river and spread, most of the land in the valley was "disposed of" (to use the terminology of the Government Land Office at the time) through the Homestead Act. Areas west of Missoula's downtown, in particular, operated until very recently as farms. Only a few remain.

More importantly, at the state level, the farming and ranching background of legislators (still a large force) led them to craft land-use policy more suited to dryland farming than urban development. This can be seen, for example, in the lack of any subdivision law in the state before 1973, and in the porous nature of the law that was then written, allowing for unchecked division of land for large "rural" lots. As parcels larger than 20 acres were chopped into five and then one acre pieces, and then built on, the city developed a 1-acre-with-well-and-septic underpinning that will shape further splits and building.

The state's disposition towards the rural also plays out locally in the pernicious rivalry between the County government — really an administrative branch of the state with few local powers and designed to manage rural areas — and the City. A substantial portion of the urban area as well as the outlying lands subject to new development are not part of the City, even though they have similar needs. Even the City has limited local powers, because Missoulians have been reluctant to see themselves as urbanites. The state legislature itself, holding biennial sessions of ninety days, is designed for citizen-farmers. Few other occupations allow for a three-month leave every other year. (Interestingly, university professors were one of those few, prior to adopting the semester system.)

Also, this mythos of the agrarian nature of development masks a consistent emphasis on real estate development. Wright points out that of 96 million acres claimed in the West, some 22 million acres were bought by land speculators. Geographer Carl Sauer points out: "The westward movement in American history gave rise to the real estate boom, made land the first commodity of the country and produced the salesman promoter. It was the latter rather than any public official who planned and directed the

settlement of new lands." (cited in Wright p. 251) Wright goes on to say that "In the Rockies, a tradition of land speculation, homesteading, and development chicanery has been transmitted whole into the 1990s. ... Subdivision exemptions are not loopholes or oversights, but purely intentional statements by Western legislators that the government has no business telling landowners what to do with their land. As a result, the subdivision laws of Western states function as *de facto* homestead acts." (252) The point here is that land development has been a major force in the formation and shaping of western communities, even though the ostensible cultural rationale has been agricultural. As we shall see with the coming of the railroad, the Rockies were only settled after industrialization. "No righteous agrarian dream supported humid-zone settlers in unknown arid regions. . . . Industry led to the settling of the West and is responsible for its cycles of economic growth." (Wright 27) It should be added that with the major exception of timber, that industry was located outside of Missoula.

Missoula's key location made transportation an important industry shaping its development from the very beginning. In order to open up the territory to settlers, around the time of the Homestead Act, Congress commissioned a road.

What came to be called the Mullan Road, which followed an old trappers' trail, was completed in 1862, linking Fort Benton — the end of the line for river travel up the Missouri — with Oregon. Like the Interstate Highway, the rationale for the road was partly military: to facilitate troop movements. But the real reason was to transport goods and people. Business boosters in Oregon and Washington hoped to see many new homesteaders flock along the road, as did others in Montana and

Idaho. In fact, the gold rush in central Montana generated the early use, as food and other supplies were shipped by pack to Virginia City, Bannack and the other gold rush towns (from Oregon). Early Missoulians Higgins and Worden had set their store up in Hellgate to take advantage of the travel through this valley in 1860. Higgins and Worden capitalized on the opportunities which soon developed. (Winther) A number of homesteads and mining claims were filed in Missoula in the 1860s, enough of the latter to spur Higgins, Worden and a sawyer named Pattee to build Missoula's first structure, the sawmill. They moved the store next to the mill at Missoula Mills, and the new community of Missoula was soon dubbed the county seat, in 1866.

By 1870, Missoula consisted of fifty buildings, including a flour mill, two stores, two large hotels, two blacksmiths, two livery stables, a billiard room, sawmill, post office and several saloons sprawled around the downtown. The county's population was 2,554 whites, 2,084 of them men. (Koelbel, 33) Prior to 1874, roads and bridges were privately built and owned, and many had tolls. In that year all roads and bridges were made public and free. In the 1870s, the county seat acquired a courthouse at its current location, a newspaper, a slum, the Higgins bridge and a bank. The last, the First National Bank, chose as its first president C.P. Higgins, who had been one of Gov. Stevens wagon masters and had stayed in Missoula to be one its founders. Along with his partner Worden, R.A. Eddy, A.B. Hammond, E. L. Bonner, who formed the Missoula Mercantile and the first major timber mill, and Frank Woody, Higgins was frequently appointed or elected to government posts throughout his life (e.g. Higgins and Worden were two of the first three county commissioners appointed). Higgins' bank opened in 1873 with eight people depositing $14,109.78; a

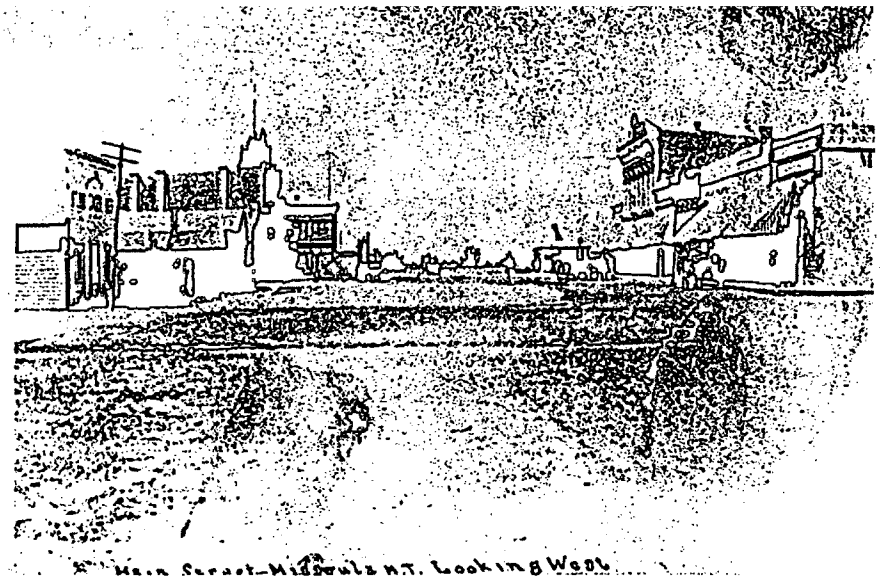
little over a month later Jay Cook's bank failed, taking $8,000 of that investment. Missoula thus felt the economic blow of one of our country's worst depressions.

At that point, the water system shaped the fledgling community. Its transportation and land-use was closely linked to the river system, though the ease of well-siting allowed for homesteads throughout the valley and up the drainages. Prior to the arrival of the railroad, horse, mule, and foot travel were the predominant forms. The Mullan Road, a substantial public works project for its time, was in fact a wagon road, and as soon as it was finished, Mullan's work team headed back along the road making repairs to the already rutting, washed-out and brush-blocked path. In practice, pack mules were able to use the road much more than wagons.

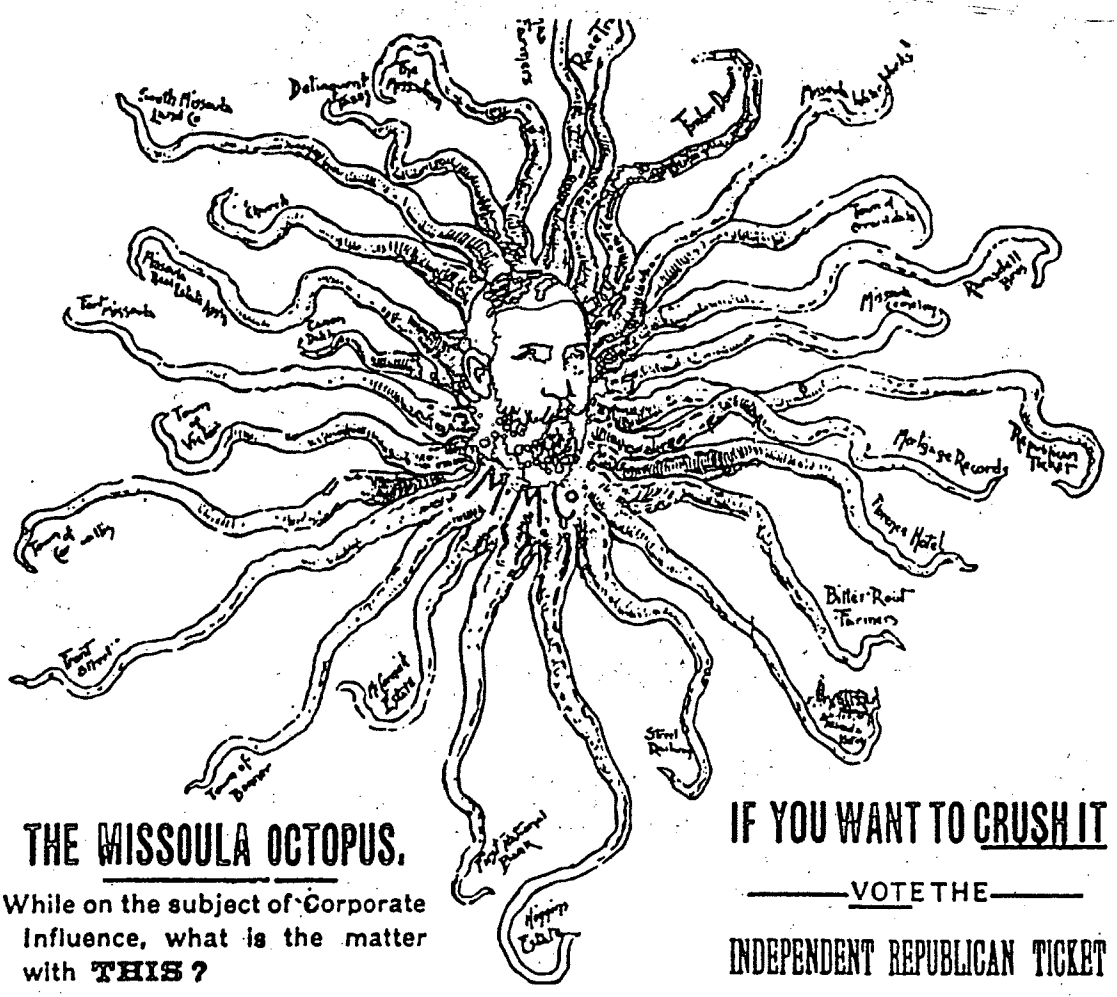
Water was also an important source of energy. Heating was by wood, as were similar uses, such as cooking and smithing. Wood was plentiful and constituted one of the key materials used for a variety of purposes. The timber industry per se, however, would come with the railroad.

Food was grown locally, raised as cattle, or imported. In fact, as late as 1900 most food in the U.S was local, sold in markets and shops. Given the difficulty of transportation, only extremely valuable food and goods would be imported. Among these would be sugar (though honey was produced locally), coffee, and books — noted to be in extremely short supply by Koelbel. Garbage was dumped, often in the river. The first garbage dump was just north of what is now the Orange Street bridge (Rainbolt 30).

So, even twenty years after settlement, Missoula remained sustainable in most of its key systems. By drawing on its immediate hinterland, Missoula could expect to continue indefinitely, as long as it remained



Approximate date, 1890. Main Street looking west, corner of Main and Higgins Worden Store, right front of picture, was built in 1870, replaced by Donohue Building which was torn down and built in present form by Montgomery Ward, now remodelled and occupied by Missoula Bank of Montana; high building beyond was location of Bijou Theater. Fire Hall in background on left, present site of Central Square.



within those constraints. Several of them, however, would be challenged by growing population and use. Even the bounteous water system was sensitive to its use as a dumping ground.

However, the community of Missoula did not have sustainability as a goal — typical of almost every new and developing community in the West. Its prevailing culture sought, for example, the railroad and the boom expected from that, a boom that would restructure the community in an ultimately unsustainable way. Its land tenure and development mechanisms were based on an unsustainable formula, and its economy was focused on serving the larger nationalizing industrial economy. Few moved here to *live* here, most came to use this place as a point of entry into the larger economy.

THE RAILROAD

The features of Missoula's economy were established early, with real estate, agriculture, retail and timber, followed by the Federal Government (Fort Missoula being established in 1877, just in time for Chief Joseph's flight with the Nez Perce) and large corporations, beginning with the railroad.

Congress officially granted lands to the Northern Pacific in 1864, but the line was not built until the 1880s. In total, the NP claimed 14.74 million acres or 16% of the state, much of which it eventually sold off. Missoula also treated the railroad generously, hoping for its economic boons. According to one recent document, "Missoulians gave the railroad a substantial amount of downtown property as an incentive to develop the railroad division point within the town. The railroad became the city's major employer, and the city began a period of rapid development."

(R/UDAT p. 4) Koelbel notes "Most of the old timers and some of the newer arrivals protested" the coming of the railroad, as did local Indians. But she claims that most liked the cheaper and more varied goods brought by train. "The businessmen in the area prospered with the coming of the railroad." (57)

The coming of the NP in 1883 initiated a building boom in Missoula, which in turn stimulated the other sectors of the economy. Eddy, Hammond and Co., a local mill, received the NP contract to clear 200 miles of right of way, to provide railroad ties, bridge timbers and to build section houses and depots. Dozens of other mills also sprang up. In addition to providing for the railroad, the timber industry provided wood for mining, in particular the copper mines in Butte, and for farms. In 1886 the Bonner mill, owned by A.B. Hammond and later bought by Anaconda, was purported to be the largest in world.

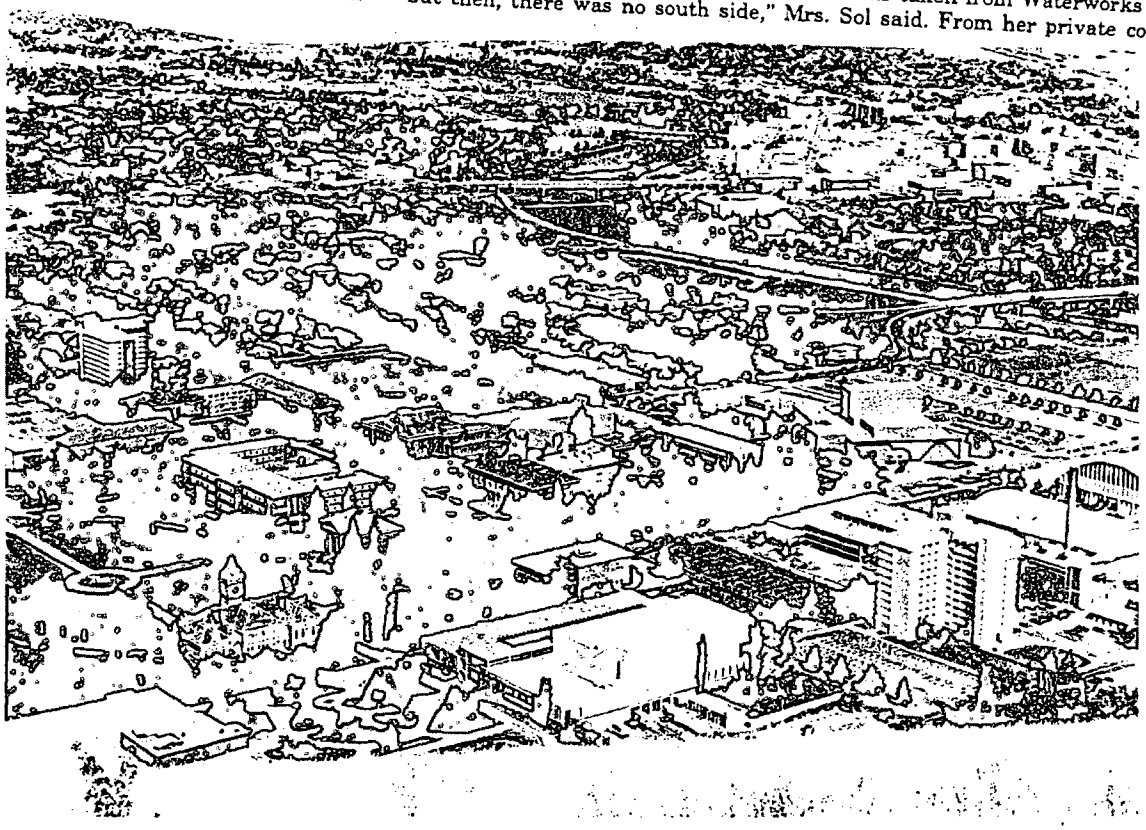
The railroad prompted — and helped promote — a homesteading boom. Even as the area was being developed industrially and as a trade center, the railroad itself helped further the *cultural* image of western Montana as *agricultural* beyond its proportion. Although in many ways merely an intensification of the Mullan Road, itself an inscription over older Indian trails, the railroad was part of an overall transformation. A transportation system, it demanded timber and water, which it claimed in large tracts throughout its route. Rail also opened up areas of forests previously too remote: the development of the timber industry paralleled the railroad industry throughout the west. The railroad also connected Missoula with markets farther away. In addition to wood for the mines in Butte, Missoula's farms and orchards sent produce there.

In response to this activity, Missoula incorporated as a town in 1883 and then as a city in 1889. The Board of Trade (later the Chamber of Commerce) formed in 1887. The first dramatic building boom in Missoula took off in the 1890s and lasted into World War I.

The University was formed in 1893. The federal government granted 72 sections (46,000 acres) to the state for its university. The land was to be sold, leased or used for timber. The lands eventually in the hands of the University of Montana itself took up 21,500 acres. The majority of that consisted of the Lubrecht experimental forestland given to the university by Anaconda and NP. These lands also included 368 city lots. Of the original 40 acres, 20 were donated by the Higgins estate and 20 by the South Missoula Land company, owned by Hammond, Bonner, Eddy and copper magnate Marcus Daly. Main Hall was built on the north-south line of these two parcels. "Missoula began to expand south of the Clark Fork during the last years of the 19th century, a pattern encouraged by the 1895 opening of the University of Montana, construction of the Chicago, Milwaukee, St. Paul and Pacific Railroad in 1908, and an improved local transportation network. This southward pattern of growth has continued, and in the past 20 years has become a major factor in the city's development." (R/UDAT p. 5)

This was to have a notable impact on Malfunction Junction. The field had been until then some distance from town (a mile and a half from the couthouse). Now development would reach steadily towards it, as if following the aquifer. Around this time, in fact, part of its anomalous future was

One of the earliest pictures of Missoula. Ruth Sol was told it was taken from Waterworks Hill in 1876. "It shows the north side — but then, there was no south side," Mrs. Sol said. From her private collection.



Photographer P.M. Koch, intrigued by the lack of development south of the Clark Fork River as shown in the 1900 photo, climbed above the "M" on Mt. Sentinel at 6 a.m. one August, 1990, morning (with his 5x7 camera) and spent the morning capturing this modern view of Missoula from approximately the same spot as the photo above. Notice the clarity of the photo; the time of day can be seen on the clock at UM's Main Hall!

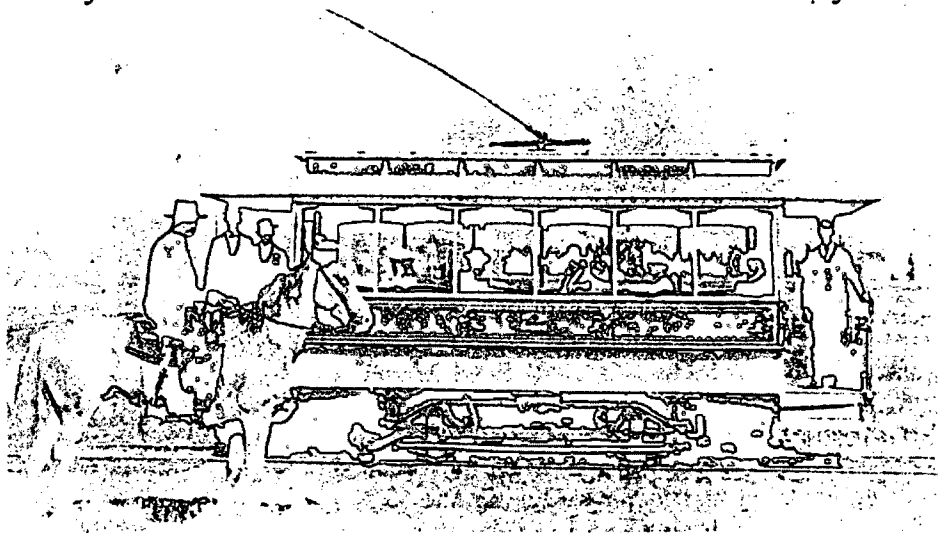
determined. Two lawyers/land developers laid out streets in their holdings along the old wagon road which ran diagonally rather than perpendicularly to development along the river. The goal of Stephens and Bickford was to create a new town, South Missoula. Unfortunately, other developers saw things differently, including those in the university area and Judge Knowles, who owned land adjacent to Stephens and Bickford along the river and who was determined to have his development part of Missoula. The resulting anomalous "slant street" neighborhoods have been a headache for traffic engineers ever since. The eventual impact on the junction, of course, is the awesome collision of three main streets at one point.

This booming development had other consequences. One was the influx of Chinese. Sadly, Missoula was no more progressive than other western towns: Chinese were banned in nice areas of town, and there were a number laws prohibiting their participation in the community's life. Chinese population peaked in the 1890s at about 400 and by the 1920s virtually disappeared.

The coming of the railroad to Missoula lead to the increasing industrialization of its economy and increasing integration of its key resource flows into the larger economic system. Missoula's hinterlands for food and materials began to be nationalized and obscured: instead of drawing directly on nearby resources, the community began to depend on distance sources of goods distributed through centralized and standardized industries which melded all resource bases into one undifferentiated pool. Wood — Missoula's own primary material — became its primary industrial export, lumber becoming the main industry in the 1890s. Its food also was exported to industrial centers and, increasingly, exchanged for other food from other areas.

Because much of the goods consumed in Missoula began to come from distant cities, in that sense its energy use had already shifted. Locally, the Florence Hotel had its own electric generator in 1888, though city-wide electricity would come later. One household had a private telephone in 1876, and in 1884 the first exchange of 22 phones was formed but died in 1888. The first permanent exchange came in 1891, growing to 1,814 phones by 1911.

Transportation, with the exception of the railroad, remained horse- and human-powered. A trolley was established in the 1890s, converting to electricity in the 1910. Rainbolt cites accounts of the ease of travel from the University area to Orchard homes out west Third street by trolley.



The streetcar was the best transportation Missoula ever had. "When I was a kid, I saw a horse pulling a streetcar on wooden rails. No picture, but I saw it." Custer Keim.

There isn't much discussion of air quality in the record. It is easy to imagine the late nineteenth century industry combining with a growing wood-burning population generating some foul air, especially during inversions. Certainly coal from the trains was a problem at least near the tracks. But there were no cars until this century, and the scale of industry

in the valley was considerably less than after World War II, so air quality might not have been too bad.

Water quality was another thing. Koelbel writes: "Many children came to school with lice and boils. The boils and other infections would occur because the children swam in polluted irrigation ditches or in the Clark Fork River. (People used to throw their garbage in the Clark Fork claiming the river would be clear 200 feet from where the garbage went in.)" (62)

It would be 100 years before Missoula took firm steps to protect its own drinking water.

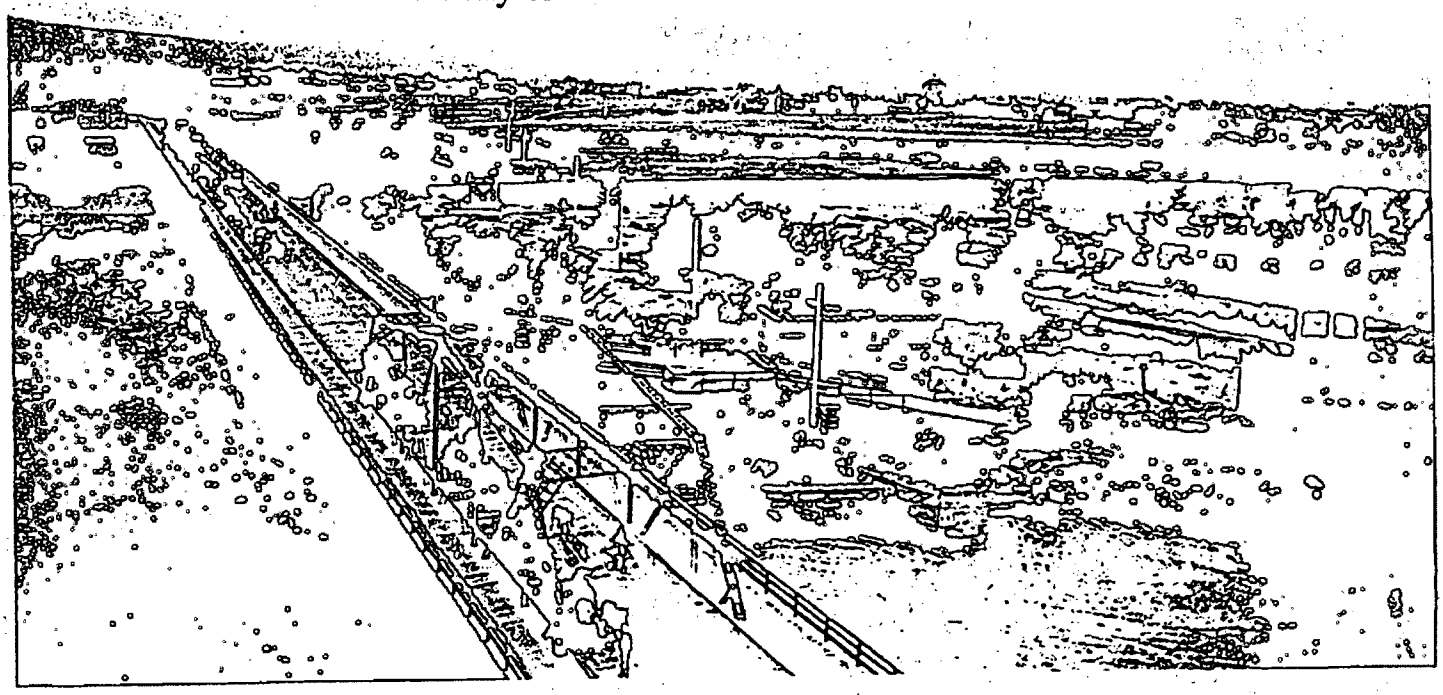
On October 16, 1891, the Junction experienced the end of an era. The Salish Indians who had come to the flower-blanketed meadows had remained in the Bitterroot valley because Chief Charlo (Victor's son) had refused to move his band from their homeland because his father had not signed the Council Grove Treaty in 1855. Finally, in 1890, the tribe was forced to give in. Now an old man, Charlo saw his tribe starving and falling to ruin. He agreed to move to the Reservation: "I will go — I and my children. My young men are becoming bad they have no place to hunt. My women are hungry. For their sake I will go. I do not want the land you have promised. I do not believe your promises. All I want is enough ground for my grave." Even so, it took Congress another two years to act. Finally, in October of 1891 the deal was signed and the Indians headed north. Koelbel recounts:

> A mile long procession was organized consisting of horses, wagons and 200 people. Charlo didn't want a military escort because it would seem as though he was being forced to leave rather than going on his own free will. Because of their late departure from Stevensville, the Indians only traveled fifteen miles the first day and camped that night in John Maclay's pasture. The next morning

> Charlo rang a bell to get the Indians up. Before the march began, all the Indians observed morning prayer. At midday they traveled through the streets of Missoula. Before going through town, the Indians dressed in their finest apparel and painted their faces so they could show off during their march through the city. It was a time of great curiosity for Indians and whites alike; many Indians had never seen a town the size of Missoula and most Missoulians had never seen such an assembly of Indians. (71)

It is easy to imagine that procession passing through the future intersection on their way from the Bitterroot to the center of town. In fact, it is difficult to imagine otherwise. And it is easy to imagine, as the last foot of the final Salish left the meadow where for hundreds if not thousands of years they had come to dig bitterroot and camas, that the destiny of that meadow to become pavement had somehow become more evident. Within ten years the first automobile would come to Missoula.

An era had clearly ended.



Chief Charlo leading his band of Salish Indians over the Higgins Avenue Bridge on their sad trek from Stevensville in the Bitterroot Valley to the Flathead Valley, 1892. The last of the Salish to make the journey, Mary Ann Combs and Jerome Vanderberg both lived into the 1970's. [Source: Photo from an original from Custer's father's collection.]

Federal management of public lands also took new shape in those years, creating what has been another major force in Missoula's development, the Forest Service. Long time public pressure to allow the federal government to hold back timber land finally came to fruit in 1891, when Congress passed legislation allowing the president to create forest reserves. The Bitterroot National Forest was one of the first formed in 1897. As president, Theodore Roosevelt set aside as reserves nine other national forests in Montana between 1906 and 1908, including the Lolo. The Forest Service was formed in 1905, and Missoula became an administrative center, becoming a regional office in 1908.[3]

When Congress passed the Enlarged Homestead Act which allowed citizens to claim 320 acres free in 1909, a new wave of homesteaders came, promoted by the NP and the newly arrived Milwaukee Road. For example, the NP held 13,450,816 acres by 1900. In the first part of this century they sold most of it to farmers. (And when many farms folded, the land went into the hands of speculators.) By 1917 only 2,751,637 acres were left in railroad hands.

By far the largest corporate influence in Montana's history has been the huge copper conglomerate, Anaconda Copper Mining Company, which held economic and political sway over Montana for years.

The Company, with a huge appetite for fuel and timbers, owned over a million acres of forest and was the largest wood producer in state. "Its Montana empire included thirty mine shafts on the Butte Hill; reduction works and smelters at Anaconda, Great Falls, and East Helena; a lumber

[3]With the announcment in 1994 of the intention to consolidate Forest Service Regional offices, Missoula may be seeing the end of another era.

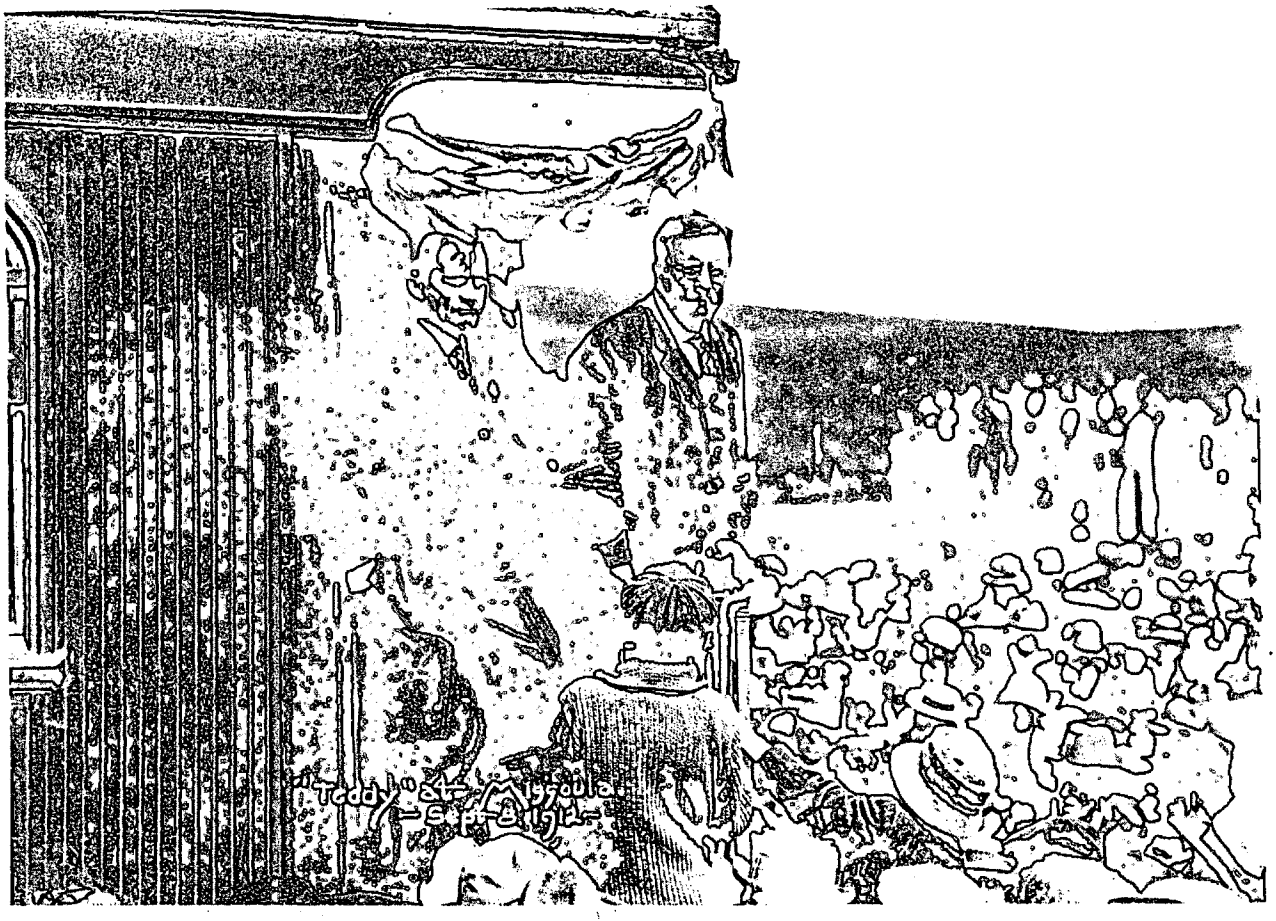
operation at Bonner; coal fields; a railroad; hardware stores and hotels; and a growing chain of newspapers, including most of the state's major dailies" including the *Missoulian*. (Malone et al, 230)

It shared hundreds of thousands of acres of western Montana timberlands with the "robust 'Siamese twin' the Montana Power Company," formed in 1912 by nearly the same owners. (323)[4] By World War I, much of the timber in surrounding drainages like O'Brien Creek had been logged off. Much of the rest burned in the devastating fire of 1910. The fire helped galvanize public support for the Forest Service, and throughout the century fires were used as prime justification for another form of development: roads.

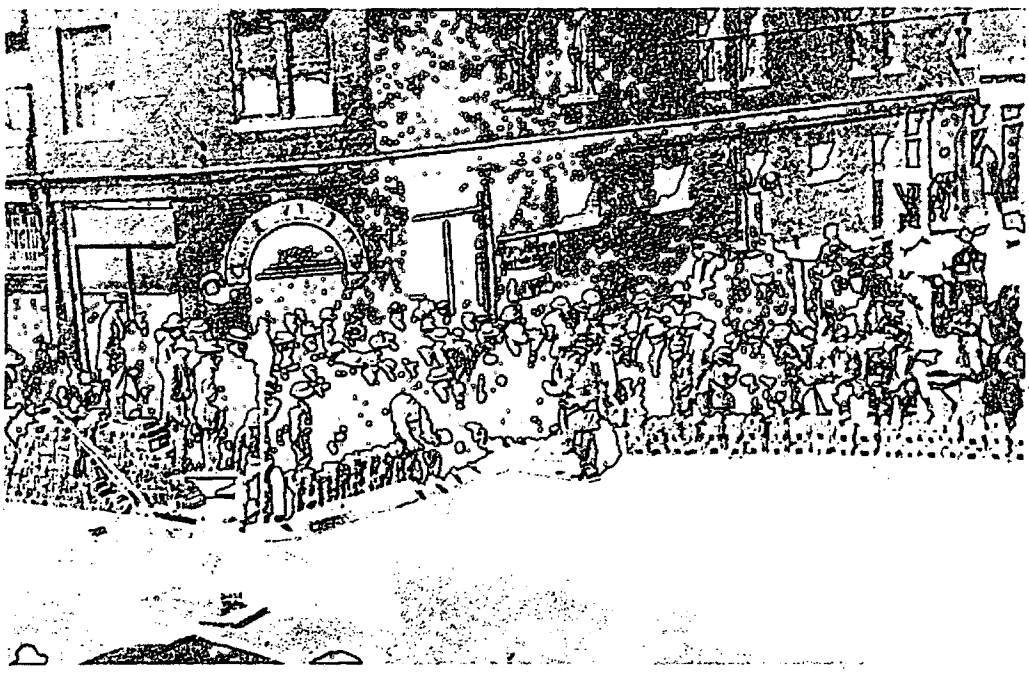
The first car owned in Missoula arrived in 1901. Traffic was serious enough that Missoula enacted its first speed limit in 1906 — 8 mph. In the second decade of this century, Missoula began paving its streets. In 1912, 3rd street was paved. Koelbel comments: "The reason this street was paved first and not one of the downtown streets remains unknown. Possibly the city was experimenting to see how well the pavement lasted or perhaps it was because several prominent families lived on that street and were influential in having it paved first." (107) Later that year the bricking of Higgins street launched the paving of downtown, and eventually the entire city.

From the perspective at the Junction, development moved steadily in that direction. As a Chamber of Commerce publication put it: "In 1901 an iron bridge spanning the Clark Fork permitted the rapid development of

[4]The combination had at least one positive consequence: Montana Power Company had purchased much of the private land in the upper Rattlesnake in order to protect its investment in Missoula's water supply, which it operated until it sold it to Mountain Water Co. in 1979. The community was positioned to be able in 1980 to acquire the landmark Rattlesnake National Recreation Area and Wilderness from the two corporations, and the Burlington Northern Railroad (which had bought the NP and still held some of the alternate sections granted to it), with the Forest Service acting as go-between.



Theodore Roosevelt was campaigning for his third term as president of the United States when he visited Missoula for a brief time on September 8, 1912. (Courtesy of Doug Brown)



Laying the paving in front of the Grand Pacific which later became the Park Hotel (which has been renovated for office space.) The paving project started in April and ended in September, 1912. Some of the dignitaries present were John M. Evans, mayor and later Representative in Congress, James A. Rhoades, successor to Evans as mayor one week following picture, Cuthbert Peat, police commissioner. T.A. Price, street commissioner. The photo — often reprinted — is an original print from Vi and Joe Schrage's family album. Joseph B. Schrage, owner of the Grand Hotel, standing with arms folded, is Joe's grandfather. In the doorway, bartender Harry Nibley and hack driver, Harry the Hack. Photo identification by Robert E. Jones and Joe Schrage.

the surrounding fox and rabbit infested land into sites for schools, businesses and suburban living." (5)

Perhaps sensing the impending loss of such land, the Greenough family gave Missoula its first park as a Christmas present in 1902. Other significant donations of parks were Bonner park in 1924 and Kiwanis Park in 1934. However, Missoula's trolley system, which extended from Bonner through the city and west — beloved in the 1920s — was abandoned in 1932 for buses. As more people got cars, things were changing from the situation in the 1910s and 1920s when one resident recalls "Everybody walked to their destinations." (Rainbolt 22)

By World War I, much of what we think of as Missoula was clearly laid out. By 1915, most of the landmark buildings were up, including banks, the old library, hotels etc. The economy and land use in the county, as in the state, remained predominantly agricultural, though industrial corporations made their presence felt.[5]

With a few changes, Missoula stayed that way until after World War II.

By the First World War, Missoula had lost considerable ground in its sustainability. As banks popped up like daisies, labor struggles were played out on its streets, and Native American and Chinese populations diminished, Missoula ran with arms wide to embrace a development strategy that would ultimately not work.

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[5]According to the Census supplement for 1913, there were 670 farms (averaging 276 acres each) worth $1 million, while manufacturing consisted of 26 firms employing 529 people total worth $1.7 million, of which $484,000 was wages and salaries. While difficult to compare directly, it seems that farming employed more people, but manufacturing probably accounted for a larger share of earnings.

POST W.W.II

After World War II, the Junction went from rural/suburban intersection, to a paved intersection at the heart of classic strip development and the Southgate Mall, to an air quality monitoring station more than a mile inside the edge of increasing sprawl. By the time this document is published, it may be slated for a massive urban overpass or underpass, bound to accelerate movement of cars and sprawl. This is Missoula's signature for the post-war development boom that has transpired across the nation and now the globe, firmly founded on unsustainable premises and practices.

That development boom was car centered: "The unprecedented prosperity of the decades following World War II was largely built upon the phenomenon of suburban development. The real estate, auto, and construction industry boomed as Americans moved to suburbs in record numbers." (Ashton, 74) Further, Ashton suggests that without this development America's economy would not have been prosperous (the two recessions in the 1950s reflecting underlying economic problems). The road and car industries represented such a large sector of the economy that overall national economic growth relied on them. (75)

There was nothing predestined about this shape of development. Urban areas had already created transit-based suburban development along the lines promoted today by Peter Calthorpe and others. It is now well established that a group of auto-related industries bought out urban transit lines around the country in order to shut them down and create a need for more cars. In addition, they (and others) successfully lobbied for national transportation infrastructure which benefited private passenger cars, such as the Interstate Highway System. "US government spent $1,845 million

on highways between 1952 and 1970 while rail systems received $232 million." (Newman and Kentworthy 101)

Similarly, post-war housing policy favored single-family suburban development. The VA and FHA government programs shifted housing policy towards middle-class ownership. Although the 1949 housing act created the right to housing, and authorized building a large number of public housing units, it also created federally sponsored urban renewal, which in follow-up housing legislation became the dominant emphasis: public housing construction peaked in 1953 and dropped drastically, rising only to those levels again in the late 1960s, while urban renewal projects usually eliminating housing (90% not replaced) steadily increased. (Parsons 1982, Logan and Molotch). So city-center housing was undersupported, though slum clearance and the development of commercial and financial real estate was (with less than 20% going to housing), while single-family tracts in suburbs were, on the other hand, heavily backed by federal funding.

Although the benefits of this post-war prosperity, to those whom it did benefit, should not be underplayed, this framework of development was not without downsides. Suburbanization for example often was a spatial mechanism for racism. City centers emptied of rising lower middle class, industry and whites, leaving the decaying cores to increasingly poor and non-white residents. Later, urban renewal projects would reclaim some city center real estate for financial institutions, creating high-rise glass canyons which emptied at night — in no way a human-scaled, livable community. Suburban communities, in order to preserve class and race interests, created numerous separate local governments, each demanding local powers. Land use regulations such as zoning and building codes, as

well as covenants, while beneficial when applied broadly and fairly, too often were used to bolster privileges. The play between local governments in an urban area often had negative results. Logan and Molotch say: "The mere existence of multiple units of decision making itself promotes certain kinds of landuse policies, policies that in turn affect the hierarchy of people and places. . . .[T]heir autonomous political structures can be easily manipulated to serve business needs. . . . The pattern of suburban growth has provided capital investors with new opportunities for playing one small unit against another, thereby maximizing their options and further straining the resources of weak places." (180, 187) Newman and Kentworthy add: "Frequently in the past the resolution of this conflict has led to a more automobile-dependent city." (103)

This strategy had many impacts on the environment as well. As development sprawled, suburbanites commuted farther and farther to work. New developments built in the absence of viable transit were designed for auto access exclusively. As cities sprawled farther, increasingly extensive freeway systems were built to handle increased numbers and distances, and often they reached capacity by the time they were completed as development leaped along to the end points of new roadways. (Davis). This feedback loop created larger roads which created more traffic which demanded larger roads. More and more of the urban landscape was devoted to the auto, until places such as Los Angeles would commit over half. This combined emphasis — cars and single-family houses — has given shape to urban areas. Suburbs became the dominant development. Malls replaced city centers as cars replaced transit and pedestrians.

Obviously, Missoula is no megalopolitan conurbation on the scale of the huge cities. However, this development strategy had several determining influences on Missoula. Missoula, like all communities in post-war America, was developed as if it were L.A.: the radical restructuring of road, housing and other development policy nationally left all communities with similar choices. And culturally most communities strove in the 1950s and 1960s for the kind of suburban lifestyle they equated with newfound prosperity. Both auto-orientation and the counterplay between local governments characterize Missoula's development. I-90 came through Missoula in 1966. The Southgate Mall was built in the late 1970s. The sprawling development pattern, of course, consumed land at an unprecedented pace. And even as many become aware of the negative impacts of such strategies in our urban areas, Missoula (facilitated by its relatively later stage in development) is now subject to the same pressures because it is desirable for its non-urban character.

Missoula shared other national changes since World War II. The post-war industrial expansion featured not only a building boom, but an overall increase in consumption, as well as the production of harmful by-products. For example, the number of U.S. automobiles in 1900 was 8,000, one car for every 9,500 people; by 1905, there were 79,000; and by 1921, 10 million, or one car for every 10 and one half people. In the 1970s we collectively owned more than 120 million cars, a staggering one car for every 1.7 people. (Ponting)

The consumption of all resources climbed, too. Industrial production increased fifty-fold since the 1890s, with 80% of that increase coming since 1950. The extra industrial output each decade since 1950 equals all output up till then. As Ponting notes, the idea that we have begun a "post-

industrial" society is sociological — in fact, production continues to increase.

Unfortunately, pollution is increasing even faster. Pollution has steadily increased in volume and has become more dangerous with the use of complex, artificial chemicals. By the 1980s, 70,000 man-made chemicals were in use worldwide, with 1,000 new chemicals being introduced each year, most not tested for safety, but half likely harmful. In the 1940s, we produced one million tons of hazardous waste per year in the US; in the 1980s, 250 million tons (2/3 of the world's), 90% of which were disposed of improperly. (Ponting)

> Since the second world war, there has been a significant change in industrial processes and therefore in the type of pollution produced. In this period pollution levels have risen far faster than the increase in population or even the increase in material consumption in the industrialized world. Until about 1945 the overwhelming bulk of industrialized pollution came from two main sources: the burning of fossil fuels and heavy industrial production such as iron and steel, other metals and chemicals. After 1945 industry increasingly manufactured synthetic chemicals, many of which are highly toxic and resistant to degradation by natural processes so that they accumulate in the environment. ...
>
> Modern industrial production has shifted towards more polluting products-- plastics, detergents, synthetic fibers, fertilizers and pesticides in place of natural, less polluting products such as soap, natural fibers and organic fertilizers. (369-370)

Along with this shift came increasing reliance on globalized food production by large agribusinesses.

Beyond pollution was the problem of merely disposing of an increasingly "disposable society" filled with consumer goods and their packaging. In America "...solid waste increased about five times as rapidly as population." (Melosi, 192) Missoula, of course, was no exception.

As pointed out in the previous chapter, all of this was part of a process that nationalized and internationalized urban hinterlands. Increasingly after World War II, economies such as energy, food, materials and even waste and water took on broader and more complex relationships to the also increasingly urban populations they served.

THE TIMBER CAPITOL

Locally the post-war boom had another key impact, and that was the expansion of the timber industry in Western Montana and the industrial exploitation of the national forests.

In 1949 44% of Missoula county (746,776 acres) was owned by federal government, mostly the Forest Service. That amount has dropped little. As of 1990, 3/4 of the land in the county was owned by the federal government, the state government, Plum Creek (the descendent of the railroad), or Champion (sold to Plum Creek in 1993): 707,637 acres federal land, 84,038 acres state land, 177,962 Plum Creek, 273,460 Champion, with 128,000 under water.

While the land distribution, cultural and legal framework were well established by the time of the first World War, Missoula experienced great changes after W.W.II. For instance, the timber industry in Montana was small before 1950. Relative isolation, steeper lands, and slower growing, smaller trees than coastal areas combined to make Montana timber less competitive than other western areas, notably the woods of Oregon and Washington. Also, the Forest Service held most of the national forest timber in reserve throughout the first half of the century, partly out of a conservationist inclination and partly to avoid competing with a sluggish private industry, particularly during the Depression.

But when millions of soldiers returned from the war and demanded housing — and therefore lumber — Montana's timber industry was re-born. Throughout the West, private lands had been heavily cut, and this had two effects on Montana. One, more general, was that the Forest Service began timber production on a large scale. By 1969, 60% of all timber cut in Montana was from federal land, with western Montana mills getting 72% of their wood from that source. That proportion dropped to about 40% by 1988.[6]

The second impact was that Montana's previously unutilized forest, now more accessible through advanced harvesting technology and milling technology increasingly able to use smaller logs, attracted industrial expansion. (This technology eventually led to a decline in jobs during a period of increased production in the 1980s). Alwin says: "Between 1950 and the early 1970s, wood products was *the* growth industry in the region, accounting for the overwhelming majority of new jobs in manufacturing." (45) For more than a generation, the timber industry dominated the economy of western Montana, including Missoula, providing 13% of employment in Missoula in 1969, (dropping to about 4% in 1988) — not including federal government employees, most of them working for the Forest Service, or independent truckers hauling logs or the University of Montana forestry school, for example. In 1957 the Horner mill came to Frenchtown (now Stone Container, after having been run by Champion). The huge Anaconda Company dismantled over the period, selling its papers, including the *Missoulian* in 1959; its timber to Champion in 1972,

[6]In 1988, Missoula county mills got 78% of their timber from private lands, largely because the Champion mills used wood from their holdings.

some 670,500 acres (and the Bonner mill) for $117 million. (Malone et al 325; see also Johnson 1972 and Drielsma et al.)

In Missoula, by 1988 there remained 7 sawmills, a pulp and paper mill, a plywood mill, a particleboard mill, 2 log home outfits, 3 post and pole businesses, a cedar products plant and a wood pellet plant. (Keegan, et al 1990)

THE SIXTIES BOOMTOWN

Missoula's population, land, and development all exploded since 1950. For example, in 1950 the city and county at large had a population of 22,485 and 35,493 respectively. It grew to 27,090 and 44,663 in 1960; to 24,497 and 58,263 in 1970; to 33,388 and 76016 in 1980; and to 42,918, and 78,687 in 1990. When you consider the urban area, it has grown from 30,907 in 1960 to 50,669 in 1970, (a 63% increase), to 60,468 in 1980 (a jump of 19.3%), to about 70,000 in 1990 (up about 16%). This population also represented a shift towards urban development: in 1930 the urban area accounted for 75% of the county's population and steadily increased until it reached 90% in the 1960s.

When you look at subdivision activity, however, the number of land divisions has increased faster. [see chart] Although divisions accounting for most of the lots and much of the acreage took place in the first two decades of the century, subdivisions and the amount of acreage prepared for development steadily increased since the 1940s. In the decade of the 1980s, the number of newly platted subdivisions fell sharply. However, during the period between 1973 — when subdivisions first became subject to review — and 1990, nearly 84,000 acres were divided without review. That represents nearly 28% of Missoula County's inhabitable space, and half the

amount of land subdivided in the county throughout its history. In the early 1990s, farmland in the county was disappearing at the rate of 80 acres per month.

If you consider the amount of land possible to develop[7], the county population density in 1990 was 163 people per square mile, well above the national average of 67 people. However, considering only the area already developed or subdivided, the density zooms to 330 per square mile. "Such a density transforms Missoula from a rural to an urban county." (Mangiamelli 1991)[8]

So we have seen the predominantly agricultural county transformed to an industrial, urban area. The population has nearly tripled, as has the number of developed acres. All of this has ecological consequences. Unlike zoning, for instance, subdivision is "permanent" — the lines, often drawn by surveyors as if slicing a cake, remain legally binding from then on.

Also, as noted, although population increased in the urban area, a great deal of that urban development took place outside of the city limits. In fact, during the 1970s more than half the urban population was outside the city's jurisdiction and taxbase, at points checkerboarded through town. (In the 1980s, one alderman commented that he drove in and out of the city twice on his way to City Hall.) Another problem came from this uneven development: not all of it was hooked on to sewer. In fact, no one actually knows how many septic systems are in place on the shallow aquifer. As development proceeded, not only did it move steadily up the South Hills and the Rattlesnake, but it also jumped to Grant Creek, O'Brien Creek and

[7]One reader asked how much of the subdivided land has no human occupants. Unfortunately, the county has no data on that. The amount of developed land, the lay-out of structures on those lands and even the location of building permits are just a few of the kinds of information the local government currently lacks. See McGrath, 1994.

[8]New York City has a density of 11,000 per sq. mile, and Hong Kong, the world's densest, 250,000 per sq. mile.

. PLAT STATISTICS BY DECADE

	# OF PLATS	# OF LOTS	# OF ACRES *
1900s	40	7,890	5,062
1910s	20	3,593	1,340
1920s	5	1,577	826
1930s	7	387	62
1940s	30	3,328	784
1950s	139	2,878	1,572
1960s	274	4,454	6,737
1970s	252	4,672	6,447
1980s	267	696 **	2,117
TOTALS	1,034	29,475	24,947

* Nearest full acre. (Missoula County Subdivision Inventory, 1980 and Inventory of Conservation Resources Update, 1991) ** Includes total of years 1985 - 1989 only.

TABLE: Missoula Neighborhoods by Income and Elevation

	Units 1964	Units 1994	change	income 94	elevation
North side	820	967	+146	11533	below 200'
Downtown	1337	1194	-143	9876	below 200'
S. Russell	482	1328	846	23078	below 200'
Riverfront	371	558	+187	19318	below 200'
Lower Rattelsnake	489	488	-1	29435	below 200'
Upper Rattlesnake	270	962	+692	38504	above 200'
Lower Grant Creek	0	86	+86	35313	below 200'
Upper Grant Creek	0	23	+23	41724	above 200'
O'Brein Creek	10	98	+98	33226	above 200'
South Hills	577	2731	+2199	38110	above 200'

Butler Creek as well as spreading out along the valley floor. This sprawl not only encourages auto travel, as mentioned, but makes extension of services problematic. In O'Brien Creek, for example, that stream had already been degraded by development in 1993, according to the Montana Department of Health's Water Quality Division, suggesting that additional septic systems would be inadvisable. However, extension of sewer lines that distance is not anticipated. (Additional roads and removal of trees are also inadvisable up there, in terms of the impacts on water quality. Nevertheless, the County Commissioners approved further development despite staff recommendation.)

One reason for this uneven development may relate to Missoula's notoriously poor air quality. Between 1964 and 1994, both the condition of housing and the income level of residents in the Downtown, North Side and even along the river declined, while both increased in the South Hills, upper Rattlesnake, Grant Creek and O'Brien Creek areas. In fact, in 1994 there was a sharp correlation between elevation and income. The highest income areas were the South Hills, Grant Creek and Rattlesnake; and the lowest were downtown and North Side. Furthermore, the higher up, the higher the income: the upper Rattlesnake and upper Grant Creek both had median averages $10,000 higher than lower down those same relatively well-off drainages. (see table) One might think that riverfront real estate would be similarly valued, but in fact incomes along the riverfront and even in the prestigious University neighborhoods are much lower, leading to the conclusion that air quality is a factor. Houses in the South Hills look down on the layer of pollution trapped by winter inversions.

In addition, the quality of housing stock remained poor in the downtown area between 1964 and the late 1970s, when the Missoula

Redevelopment Agency (MRA) was formed. Additionally, the number of housing units downtown had dropped by more than half. By 1994, some additional housing was available downtown, even though redevelopment projects also had eliminated some. It seems that the MRA had some positive effects on the downtown housing situation.

During the last 30 years, in the North Side the number of units increased by 15%. The number of units in the South Hills nearly quadrupled. The number of units in the Lower Rattlesnake actually dropped by one, but the Upper Rattlesnake also nearly quadrupled. O'Brien Creek had only 10 units in 1964, and Grant Creek none, so their increases are substantial.

The boom in the wood products industry cannot fully account for the growth in Missoula in the 1960s anymore than it could for the growth in the 1980s and 1990s during a period of steady decline in timber employment and (in the 1980s), even a building slump. While the timber industry shifted Missoula from agriculture to manufacturing, the area continued to expand in retailing, services, government and the University. Also, new sectors, such as the medical industry, tourism and the arts dramatically increased. An ongoing regional agglomeration has increased a number of local sectors, such as the medical industry. Missoula's landfill now serves several counties as EPA restrictions cause small, rural dumps to close. Also, while Missoula once had several competing garbage haulers, Browning Ferris Industries now has an increasing regional monopoly.

QUALITY OF LIFE BOOM

Beyond a doubt, Missoula also has attracted many people for reasons that are not economic. In the last two decades Missoula has experienced a

quality of life boom. Partly causing and partly resulting from this influx of environmentally-minded residents have been policies such as open space protection of some hillsides and other parcels through a conservation bond, and the establishment of a substantial greenway and trails system.

We can also trace a parallel forest industry based on recreation, wilderness and non-development. Since the 1960s, Missoula has been a major center for wilderness advocacy and enjoyment. In a sense, the same forces that spawned the industrial expansion of the forest have nurtured the opposite, even within the same institutions, e.g. the Forest Service and the University. In fact, the Forest Service road building efforts beginning in the 1920s also provided access for increasing numbers of motor-driven tourists and campers. This access, in turn, helped develop a constituency for recreation and wilderness.

Out of this forest-based environmentalism has come a number of actions and proposals which address the city's potential sustainability. In the late 1970s, not only did air pollution advocates successfully press for regulations and an air quality district to monitor them, others succeeded in gaining the public protection of the Rattlesnake National Recreation Area and Wilderness. (See note 4 on page 70.)

For example, the Frenchtown mill, which Malone says "helped make [Missoula] *the* Montana boom town of the 1960s," also "contributed heavily to an air pollution problem that gained nationwide attention for Missoula and aroused many of its citizens to demonstrations of anger." (333) The air quality eroded further after the 1973 oil shortage prompted many additional wood stoves. Despite regulations on those two sources, air quality still remains a health hazard, and the growing number of cars must take some blame for that.

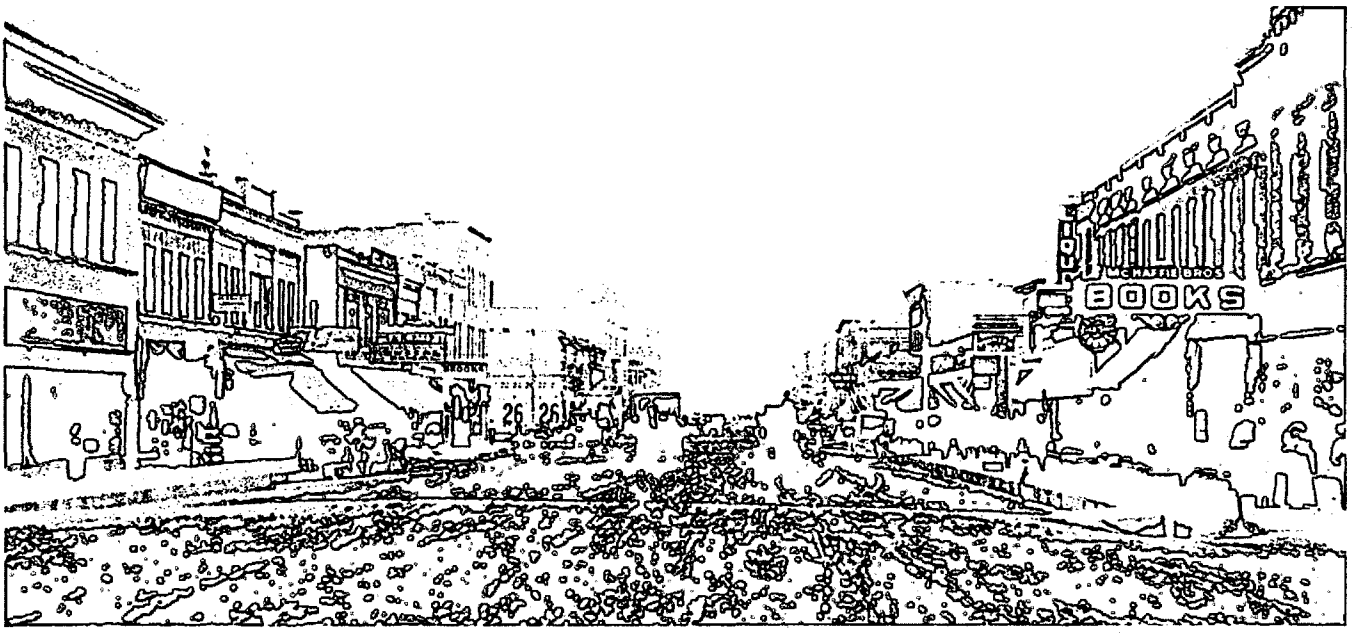
With newfound interest, the community turned towards the river and developed parks and trails along its banks. This was greatly assisted by the MRA formed to save the downtown from "blight" caused by the creation of the mall and other strip development. Continuing in the 1980s, citizens called for the formation of a water quality district, now empowered to tackle threats to the acquifer. Ironically, this was probably made possible by the fact that the largest Superfund site in the country is just upstream on the Clark Fork, because that inspired people to organize around local water quality issues.

Just as development increased through the last 30 years, so did efforts to mitigate its effects. Missoulians have become more acutely aware of the need for sustainability in our community and have acted on that awareness. In a tide of progressive political energy which resulted in a new Montana constitution in 1972 (one which guarantees environmental health), new laws at the state level allowed for subdivision review, as noted, and comprehensive planning. Thus began over a decade of local land use planning, much of it articulating a sustainable vision for Missoula. However, as we shall see, just as subdivision review failed to control land splits (in fact, un-reviewed divisions skyrocketed), local plans seem to have been ineffective.

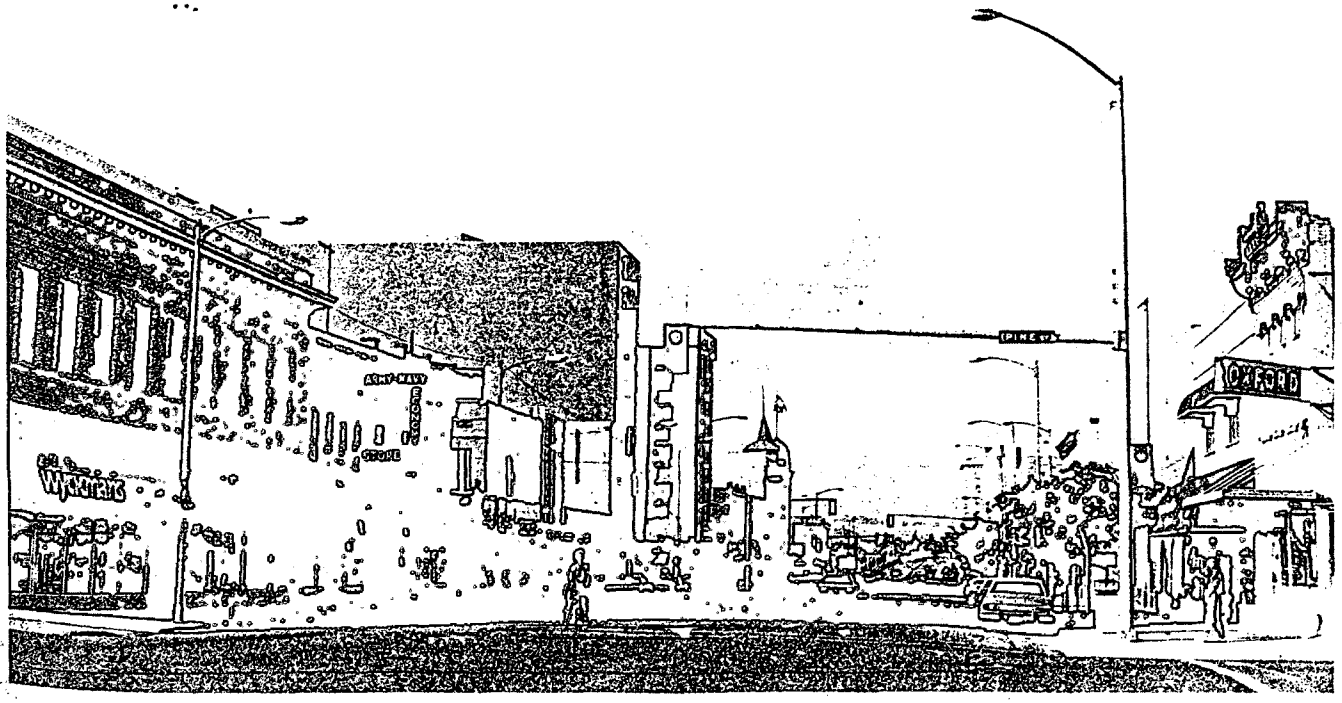
In the last two decades, Missoulians have followed up in a tradition of progressive activism which stems back at least to Jeannette Rankin, the first woman elected to Congress. Missoula is the home of several dozen environmental groups, many dealing with wildlands issues. Others, however, address other issues: the Clark Fork-Pend d'Oreille Coalition, instrumental in the water quality district; the Down Home Project, Inc., a non-profit focusing on urban sustainability, in particular community

organic gardening; the Ecology Center; Five Valleys Land Trust, evolving out of the development of the Rattlesnake Greenway; as well as non-advocacy groups such as the Wildlife Film Festival, the Native Plant Society and the Natural History Center. Citizens have been active in other areas which concern sustainability as well, such as the blossoming neighborhood associations, many linked in the Missoula Neighborhood Network, Inc.; the city has high rates of bicycle use and hosts Adventure Cycling (formerly BikeCentenniel); and the Jeannette Rankin Peace Resource Center, which acts as a clearinghouse for many sustainability-focused projects, including the Bike Bank and the Missoula Advocates for Justice.

From the perspective of Malfunction Junction, Missoula has changed significantly over the last forty years. The 1960s brought the first modern planning to Missoula. As the urban area grew, as the University grew, and strip development came, the Junction became a paved point of auto contention. The 1967 master plan set forth a system of "roadway facilities to serve automobile-dominated travel demand, including freeways" — essentially mapping out the system we have today — while simultaneously hoping to constrain "outlying shopping centers." (Clark et al.) Matters became worse in the 1970s when the Mall was built. Successive attempts to undo the "malfunction" made little difference. In fact, an overpass was proposed in the late 1970s, as were most of the other engineering solutions considered in 1994. In the early 1980s, the federal and state authorities having clearly documented Missoula's air pollution, the metal shed was placed at the Junction, its electronic infrared gizmo breathing in and out lethal air for us while we sit in our cars, waiting for a change.



It seems appropriate to begin Missoula's photo album with photos and captions courtesy of Robert E. and Florence (Steinbrenner) Jones. Bob called me from California (where he and Florence escape Missoula winters) in the fall of 1988 just when I was beginning to wonder if anyone was interested in this project. He not only ordered one of the first reserved copies of the book but offered photos, stories and reassurance. This photo is Higgins Avenue in about 1910 (the street was paved in 1912) looking south with Lucy's Furniture (now Wykman's) on the left corner. Western Bank was built in 1911 where you see the circus posters.



This August 1990 shot, of the same scene, is courtesy of P.M. Koch, a newcomer to Missoula.

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CHAPTER THREE:
MISSOULIANS HAVE ARTICULATED A VISION FOR SUSTAINABILITY IN RECENT PLANNING DOCUMENTS

Over the past two decades, Missoula citizens have participated energetically in a number of planning processes, sharing with each other and the governing bodies their desires and visions for the future of the community. Hardly surprisingly, most of these goals are compatible with a sustainable community. In fact, they require it.

Missoula is a place that is aware of itself as a place. Missoulians have a high level of awareness of the environment. Even when not using the specific terminology of sustainability, Missoula citizens have articulated many of the elements of a sustainable community. In other words, citizens have said they want Missoula to become sustainable.

Of course, Missoulians have not articulated an entire vision of sustainability. Three organizing concepts for a sustainable community are integration, self-reliance and social justice. Citizens over the years have expressed little of the sense of "conservation through integration" or other similar holistic views of the community. This might be simply because the circumstances have not often offered the opportunity; when discussing one sector or another, the focus is not so overarching. More

likely, however, is that people are not thinking in this way yet, and that it is an area for education.

The concept of integration and closing loops does come up in our plans for managing waste. Recycling is one way of creating a loop, cycling some material back through the system. However, without a market for those materials, recycling does very little (although it does divert trash from our landfill). The solid waste plan, however, (developed by citizens, government and industry) lays out an integrated view. It forefronts reduction of waste — by far the most effective way to "manage" the problem — and speaks of composting, reuse and recycling as steps to take before sending anything to the landfill. Composting of yard and garden waste is a cross between reusing and recycling. In a sustainable community, the valuable organic material in grass clippings, leaves, and garden remains will never be thrown away. As it is now, the City collects some leaves and EkoCompost, a locally-based fertilizer company, uses such material to make organic fertilizer. However, as organic gardeners have known for years, the loop is only closed, in fact, when the remains of your own kitchen, yard and garden are used for your garden, and you add no extra fertilizer.

"...[T]he integrated solid waste management hierarchy ...[is]: Reduction, reuse, recycling, composting, landfilling, incineration.

"What that means is that Missoula should first identify portions of the waste stream which can be reduced or eliminated at the source — before they become trash — and take steps to put source reduction into practice. Likewise, the community should identify what components can be reused and determine ways to encourage Missoulians to divert these materials from the landfill. Next, Missoula should consider recycling and composting. And finally, those wastes which have no practical alternative should be landfilled in the most environmentally sound manner." — Missoula City County Health Department "Missoula Integrated Solid Waste Management Policy" of 1993

Citizens have consistently supported recycling, and more recently, composting.

The important goal of more local self-reliance emerges from time to time. There has been a consistent call for that from environmentally progressive voices for many years.[1]

Calls for social justice have been consistent and strong. Most recently, citizens clearly and thoroughly expressed the desire to have a Missoula in the future that was just. By the next century:

> We have economic and social justice for disenfranchised groups and others, and have lessened the social stratification and the unequal access to community affairs and benefits by persons of differing economic status. All citizens participate in the benefits of the community, regardless of economic status. (Missoula Vision 2020, 1993, 15)

They also discuss goals on food, housing, treatment of the elderly, tenants' rights and so on. "Through a combination of public and private action, low income Missoulians have access to adequate housing, transportation, legal services, and social activities. People with low incomes have a voice and are listened to; government is responsive to the needs of low income members of the community." (16)

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[1] This expression has been effectively countered by the Reagan-era "competitiveness" discourse, pressuring for greater engagement with and subservience to global systems. Mayor Kemmis has articulated a fascinating middle course of doing both: he has envisioned the reduced importance of the nation-state, leaving a more decentralized system of localities more in control, while simultaneously becoming more global in their focus.

So while Missoulians have described some elements of these three holistic themes in sustainability — integration, self-reliance and social justice — to conceive of all three working together is something new. However, these ideas (as shown in the first chapter) are powerfully synergistic. By creating loops in the system, the community becomes less dependent on inputs from outside and more self-reliant. While in theory this integration could involve any material or energy used, in fact, it is easiest to do this in the areas most basic, such as food, housing materials, and so on. These systems of production impact in a positive way the concerns of social justice. Again, while it can be done without helping empower people, it can more readily be done by involving the most needy in their own work. Two examples will help on this.

The most obvious case is that of organic community gardening. Missoula has had a vibrant community gardening network for more than twenty years. Chuck Jonkel helped establish the university community gardens in the early 1970s which has been used by a mix of faculty, staff and students ever since. The Down Home Project (now its spin-off, Missoula Urban Demonstration (MUD) Project) has operated community gardens on the North Side since 1979 as well as providing information and

workshops to teach people various techniques of self-reliance. When people take shovel and seed in hand, several things happen. They begin to become more self-reliant because some of their basic food needs comes from their own resources and not the supermarket. If they are needy, this is an act of social justice, not only because they get food but also because they have taken some power over their own destiny. If they practice sustainable agriculture and take up composting, they begin to contribute to the overall sustainability of the community, and they begin to see firsthand how a system works together. In this case, the concepts of integration, self-reliance and social justice are nearly impossible to separate from each other.

Another example is the kind of housing development done by Habitat for Humanity. In the Habitat model, the low-income people needing housing are assisted with materials and training, and build their own house. Here, obviously, social justice and self-reliance are linked. To make the project more sustainable, we merely need to add the awareness of integration: by using local, sustainable and environmentally sound materials, as well as overall design and technology, we will have people literally building a sustainable community for themselves.

Both those examples are at the individual level, by the way, for the sake of clarity. We need to extend the concepts to a community scale.

Three concepts nearly parallel to the above have been frequently articulated by citizens: community, quality of life and empowerment. "Community" and "quality" (of life) are terms used frequently. While these terms are extremely vague and ambiguous (people agreeing to the language with differing senses of what it means), clearly it often has to with desiring a more sustainable community. In fact, "quality of life" frequently has to do with environmental concerns. The Comprehensive Plan states, for example, as one goal: to "Foster a healthy local environment functioning in harmony with quality of life goals..." (9) And the neighborhood amendment for the Historic Southside says, "...the quality of our lives here is indebted to the massive features of nature which we usually take for granted ..." (34) The plans for the Missoula Economic Development Corp. (MEDC) and the Missoula Redevelopment Agency (MRA) also refer to quality of life. And in Vision 2020, citizens explored in depth the meanings of that phrase. Citizens asked for:

> A quality of life significantly enhanced by the accessibility to wildlife and to a many-

"Whether it be the 'quality of life' or just a sense of community pride, a significant portion of Missoula's economic future or opportunity may well be placed upon the personal values of decision makers choosing Missoula as a 'place.'" — Missoula Economic Development Corp. "Strategic Plan" 59

"This commitment to provide a superior quality of life to its diverse citizenship has inspired the City of Missoula to initiate this Study."

"Any plans for the Study Area should address the importance of the Riverfront as a component part of the quality of life in Missoula." —Missoula Redevelopment Agency, "Missoula Urban Renewal District II Study 1, 32

"Viability of the economy: ...the economy is diverse, sustainable, and stable enough to provide the jobs needed for enjoyment of a livable standard of living, and to generate the wealth needed to enable the preservation and enhancement of the quality of life desired by Missoulians." Missoula Vision 2020, 1993, 5

> sided open space network, including agricultural land, parks, and other forms of open space valuable for aesthetic, cultural, recreational, and ecological reasons. (1993, 5)

But they extended it. "Missoulians affirm that quality of life means more than material wealth, and make spiritual and moral values central to that quality of life." (14)

The call for community itself is quite clearly one for things like human scale.

> A quality of life significantly enhanced by keeping Missoula on a human scale: small enough to maintain such things as friendliness, sense of community, community pride, and having adjoining neighborhoods which recognize that their quality of life is tied together; large enough to support such things as greater ethnic and racial diversity, public facilities adequate to the population, readily accessible mass transit, and quality public spaces. (Vision 2020, 1993, 5)

Obviously, calls for community are present throughout all of these documents. When examined, the statements about quality of life and community usually refer to specific elements needed for a sustainable community. In a sense, the quality term is an older precursor.

Part and parcel of any discussion of community is empowerment, or democratic participation. Empowerment is a consistent call. Citizens have been deeply involved in Missoula's

"We have a governing process whereby policies are developed by a consensus of Missoulians encompassing all ranges of economic and geographic classes; we have increased personal direct communication between government and citizens.

Neighborhoods are empowered by integrating neighborhood councils into the decision making process. We seek consensus at the neighborhood level, with representatives to a larger governing level.

Decisions agreed upon at the local government level are referred back to the neighborhood level for approval.

We have developed ways of handling differences respectfully, so that the public processes help to achieve community cohesion. Missoula is able to attend to conflict management needs in light of rapid growth, with a mediation center, ongoing training of peer mediators, mediation training in schools, and alternative dispute resolution certification (degree) at UM.

We have town meetings where important local issues are debated, continually preparing for the future, with all ages involved.

The citizenry is well-informed so that it values participation in the decision-making process.

People understand how decisions they make affect others in the community; they understand overall community needs.

Citizens feel they can grow into a relationship with the community, feel a sense of belonging and that their voice is heard, and know and look out for one another.

The citizens continue to take responsibility for the future course of the urban area, and continue public dialogue and public watch-dogging.

The citizens recognize and accept taxes as a community obligation, as a way one neighbor helps another." —Missoula Vision 2020, 1993, 25-6

community life and politics, and they want to be able to have self-determination. The fact that these cries for empowerment continue suggests a consistent failure by our local governments — but that's in the next chapter. But as recently as 1992, citizens clearly called for more empowerment, hoping in the future that:

> Members of the Missoula community have created a political life in which citizens are welcomed into the decision-making process of the governing bodies, those bodies make government accessible to the people, and citizens seek intelligent participation which is understanding of overall community needs while being sensitive to individual needs and desires. (32)

and

> Our government is structured to make the best use of the participants: the government officials and agents who make the final decisions, and the many people who compose the public and wish to participate in the decision-making. Missoula is looked to as a model of self-government. (Vision 2020, 1993, 24)

It should be clear that these terms merely replicate the first three: no sustainable community could be so without a sense of community; and empowerment is another way of calling for social justice and self-reliance. One of the most critical points of empowerment, community-building and quality of life has been neighborhoods.

Neighborhoods as a center of life have a long tradition in Missoula as well as other cities. Frequently, specific needs and wants have been seen to best be placed in neighborhoods.

Perhaps few Missoulians realize that neighborhood-level governing has been official policy of the City and County for several years. The 1975 comprehensive plan supported neighborhood planning, and those provisions were further strengthened in the 1990 Update and the Historic Southside Plan. The Comprehensive Plan recommends the formation of neighborhood boundaries and associations. "Neighborhood associations ... shall be recognized as organizations through which grassroots democratic civic action occurs." (58) The Historic Southside Neighborhood Plan goes even further beyond mere land-use planning. In addition to goals specifying early involvement and notification of development, the plan has this goal :

> To strengthen the neighborhood planning process which is envisaged upon the Urban Area Comprehensive Plan so that it is a constructive means of community building, a practical device for making representative government more effectively representational in its operation, and an effective means for good community planning. (70)

The plan proposes in essence a neighborhood council system of governing and emphasizes its community-building role.

It is probably not surprising that the most well articulated call for neighborhoods comes in this document: it was created in a unique way, and this neighborhood is probably the closest to the kind of community-within-the-city that I am discussing. The process which developed the plan was lengthy and participatory, with the city planning officials functioning "mostly in a facilitating (advisory, resource) role, while the decision-making and the creation of the plan itself have been the work of a citizen body." (70) The neighborhood (from the Orange Street Bridge to Hellgate High, south of the river) is a mixture of residences, both owned and rented, and businesses, owners and workers of which were included in the process. They clearly distinguished what their idea of a neighborhood was:

One problem with the term 'neighborhood' as it is used in public discussions locally is that it tends to be identified with 'residential neighborhood' or even more narrowly with 'single-family residential neighborhood.' This is not the meaning of neighborhood in the above goals. We are a neighborhood in the sense meant in those goals; we are a mixed group, including a residential area with mixed residential types, two commercial areas different from each other in character and from other commercial areas in town, a public open space

area, and public and private institutions and groups of various sorts whose location and functioning in the district make a difference in its character. When we speak of neighborhoods, we are speaking of an area whose functioning involves a shared sense of a common place that is sufficient to create an identity as a small community within the larger community of Missoula. (72)

This neighborhood, and the plan they created, goes a long way toward articulating the kind of role in supporting lifeways needed for sustainability. Importantly, it stresses the kind of mixed use necessary for any "access through proximity." Placed alongside the river, it already has the best "promenade" and open space inside the city. By emphasizing the varied residential types, it stresses the socially just future of the area, because as a historic area as well as prime riverfront and commercial proximity to the downtown, this neighborhood is one very likely to see increased cost of living. Unfortunately, few other areas in Missoula have such characteristics which propel its residents to such clear goals. The provisions for institutionalized neighborhood councils, however, would help that.

I feel compelled to add at this point, given recent and past occasions where neighborhood groups have tenaciously blocked all changes in development or zoning, that the emphasis on neighborhoods does not mean that exclusive groups should be mere nay-sayers. In particular,

neighborhood groups (more often home-owners than residents associations) have opposed higher density, clustered development, affordable housing and mixed commercial development that are important to creating a sustainable neighborhood-level community (and taken other, uglier stands, such as opposing group homes for the disabled). Citizens are aware of this potentiality. Both the recent Comprehensive Plan Updates mentioned as well as Vision 2020 clearly express the goal that empowered neighborhoods act together with the larger community goals. The Comprehensive Plan specifically says, "both community-wide needs and the livability of a particular neighborhood must be considered when answering questions such as the appropriate locations for multi-family housing and neighborhood commercial developments." (57) Vision 2020 says, "People understand how decisions they make affect others in the community; they understand overall community needs." (25) Again, the provision of truly democratic representational neighborhood councils should counteract that tendency. Many times the neighborhood group opposes higher density because it feels that once the door is opened more and more dense development will go in, that open space will not be preserved, for instance. They are justified in that view because the history in Missoula

is one of exactly that sort of action (more on that in the next chapter). They feel that it is only by blocking that they can be protected. If neighborhoods were truly empowered, they would be able to act with a broader perspective.

Missoulians have also articulated sustainable community in a number of more specific sectors. Citizens have actually gotten quite specific about urban design, land use and transportation, largely because of the ongoing land-use planning processes and the role the governing bodies as well as public agencies (notably the MRA) have in urban design.

For example in Vision 2020, citizens described in detail some goals in tune with sustainability. They said that sprawl should be avoided and development should grow through infill, protecting open space and in harmony with existing development. This vision is completely compatible with Richard Register's (and others) theory of restructuring. Infill helps reduce the need for cars. Another desire was that Missoula should have an appropriate size. This would preserve the air and water quality, and access to wildlife. "Human scale" is mentioned, which also includes social aspects like friendliness, sense of community and community pride. These are all visions of a sustainable community. The community

should work well "as a system." This system, however, does not include the ecosystem or a relationship to the surrounding bioregion. (This is one big weakness in Fisk's theory: creating an integrated system does not necessarily imply an environmentally sound system or one tied to the ecosystem.)

Further, citizens described a specific design: This section is almost straight "ecocity":

> 1. Outside the main urban area are satellite communities and large open spaces.
> 2. The urban area itself reflects a growth achieved by maturation rather than by expansion, within the bounds of a greenbelt around the urban area. The entryways into the main urban area are well-designed.
> 3. Growth occurs under the guidance of planning which aims at the benefit of the community, and under a management policy which does not allow growth which excludes those who already live here.
> 4. The community design includes these features:
> a. No houses are on the upper reaches of the mountains, with some perhaps on the lower hills but with open space planned into any development there; little or no residential development in riparian areas;
> b. Development maintains the availability of and access to wildlife, and respects physical and environmental features which 'everyone' believes are important;
> c. Housing developments involve clustered housing and are located close-by to shopping areas (or shopping areas created in close proximity to residential developments);

d. Residential housing includes senior resident housing appropriately located;

e. Neighborhoods are diverse with some mix of income-levels, each enhanced by its greenspace or park and quality small neighborhood shops; all buildings are aesthetically pleasing. . . .

6. A functional and appropriate transportation network connects the various neighborhoods and urban areas:

a. A bicycle-friendly network;

b. Intelligible roadways which are less used by motorized vehicles and which can function without producing traffic congestion;

c. A mass transit system supported well by Missoulians;

d. Location and design of residential and commercial areas so that frequent destination-points for travel are within walking distance. (Vision 2020, draft version[2])

The concept of cluster development to save open space, and in-fill development, mainly to save cost of infrastructure, has been well-understood in Missoula for years.

Transportation planning has been perhaps as controversial as specific land-use conflicts. Citizens have often called for a variety of alternative transportation. Recently, the City, County, Lolo National Forest and the University sponsored the development of a Non-Motorized Transportation

[2] This comes from data collected in the Vision 2020 process. The exact language of this draft was changed prior to publication as "Missoula at a Crossroads." I include it here because it describes more clearly this expression of sustainable community design voiced by participants than that in the publiched document. Both are synopses of participant input.

Plan (NMT) for "an integrated system of on-street and off-street facilities for those who choose to travel by non-motorized means: primarily bicyclists and pedestrians." (4) As in the passage from Vision 2020 above, sometimes the clear connection between land-use and transportation is articulated. Often, however, (as in the NMT) transportation is isolated.

Most of the discussion over housing has been in the call for more affordable housing. While several creative options have been developed, usually the sustainability elements of housing have not been discussed, e.g. energy efficiency, solar siting, or use of resource-efficient materials. Certainly, the right to decent housing should not conflict with the need for more practical, sustainable housing. In fact, the two should and can dovetail.

Probably one of the biggest changes in local awareness towards sustainability is in the area of water quality. In response to a mass demand for protection, a water quality district was formed, as well as some approaches to sources of pollution including hazardous waste. This is also expressed in general documents, such as the Comprehensive Plan, the Rattlesnake neighborhood plan and Vision 2020. While water quality (i.e. cleanliness) has been well articulated, little has been said about quantity. With

the sense of unlimited supply, conservation strategies have not often been suggested.

Concerns over energy have been brought up. The Comprehensive Plan, for example, and the NMT cite energy conservation as a goal when considering transportation issues. The 1983 proposed update to the Comprehensive Plan placed strong emphasis on energy conservation, identifying not only transportation, but also sprawl, landscaping and other site-specific approaches to design and building, and energy efficient materials as important concerns. (Brey, 5-6) As a response, the City adopted a set of voluntary guidelines for energy-efficient land-use in 1985. These proposed regulations included a number of key factors for more sustainable building: solar access and topographical considerations, clustering for energy conservation, re-orienting streets and reducing their width, and identifying wind and shadow patterns, and zoning changes in building heights and setbacks. (Missoula Office of Community Development Staff, 1985.) The County did not adopt those voluntary guidelines.

Note that all four of these are physical restructuring ideas.

Citizens have called for better government in specific ways beyond mere "empowerment." One important way is to consolidate local government, or

at least make it more coordinated. Without getting into the specifics of particular proposals, the general idea is that the division between local bodies is exploitable especially by proposals for unsustainable developments. If you can't do it in the city, then do it in the county. (See Logan and Molotch, Davis and my discussion in the previous chapter.) Missoulians clearly understand the implications of certain actions on neighboring communities to which unwanted development might go. The institutional likelihood of exploiting a division between city and county is aggravated in two ways here: first, much of the urban area is not in the city, though the physical distinction is not clear, and second, the county and the city have a recent history of bad blood, such that they often take contrary positions out of spite. Several agencies work together well; citizens call for more of that. Also, the air quality and water quality districts recognize that those environmental concerns ignore established political jurisdictions.

Missoulians have been less concrete about work and economic issues than most other issues. Citizens have said, however, that they want socially and environmentally responsible businesses, and encouragement of small and locally-run businesses.

There are a number of specifically local issues that are important for building this sustainable

community. Urban flora and fauna is a substantial one. Missoulians have valued and promoted our urban forest over the years. In keeping with the tradition of the Garden City, citizens have expressed desire for gardens. Also, native plants have been seen to need protection. Citizens also value the presence of wild animals in the city, such as heron, osprey, and deer and the need to foster and protect them.

As has been seen in many of the above quotes, Missoulians have focused a great deal of attention on open space. Many Missoulians value this place because of the nearby wildlands. They also desire to facilitate that connection in the city and even have some areas in the city wild. One of the aims of the NMT was to connect the city to the wildlands by way of a trail system.

The Clark Fork River has become the center of the downtown and received much attention in the last two decades. The area has been spoken about in at least three planning arenas, the Historic Southside, the MRA and the Riverfront plans. The river and its surrounding riparian zones have been valued, as well as the Rattlesnake and Bitterroot.

These expressions I have reviewed can be grouped in three large categories: physical (having to do with the natural and built environment), social

(having to do with community of people), and institutional (economic and political means to achieving these). Since usually the planning processes which allow citizens to participate/articulate often have to do with decisions about the physical elements of the community, citizens have been much more thorough and expansive about those. When given the opportunity (and even when not), people have been surprisingly forthcoming with statements about social concerns. This is for two reasons, I think. Some social concerns constitute issues themselves — e.g. affordable housing, public safety, health and education. People often have a goal in the physical relations of their community which derives from or is based on a social goal. Safe streets takes on a physical element; the need for community asks for public spaces, etc. Also, unfortunately, many people wish to "engineer" solutions. And, since they often have input only on engineering questions (i.e. how the governing body allocates public works funds), they feel compelled to take the opportunity to attempt social concerns in that context. Finally, people have overall expressed less, and with less depth, about the goals and means of the institutions such as the economy and the local government. The latter has often received comment in the context of other matters — again this arises because it is the

government which asks for input and therefore usually frames the discussion. Missoulians have created surprisingly independent planning opportunities.

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CHAPTER 4

SO WHAT HAPPENED? THE COLLAPSE OF PLANNING; A BRIEF HISTORY OF PLANNING IN MISSOULA

If citizens have called for a sustainable community so clearly in their plans, why do we not already have one?

Simply said, because saying don't make it so. For plans to make a difference, they must be carried out. And before even that can happen, they must be adopted.

So citizens put thousands of hours of energy into developing plans. But when it came time to have them adopted, some of those who chose to save their energy and not work on plans claimed they were "left out" and blocked adoption. It is much easier to block something you don't want than to work hard to formulate something you do.

Also, even those plans that were adopted required implementation. And elected officials found it easy to adopt a plan — when the chamber was filled with citizens — and simply never carry it out. It then becomes a self-fulfilling prophesy to oppose plans because they will "gather dust on a shelf."

Either way, the energy of citizens went into lengthy plans, which kept the citizens out of the hair of everyone else.

This turns out to be a successful strategy for unsustainable development.

We see all these elements played out in the demise of Vision 2020, which was, in fact, conceived as a response to other efforts also blocked by

conservative members of the power structure. But we shall see this as the established pattern in Missoula.[1]

Planning in Missoula — and Montana — has never been without controversy. Although city zoning laws were introduced in the 1930s (and still remain on the books), and the first, primitive Master Plan was written in 1961, modern comprehensive planning was only possible since 1973. In that year, a watershed legislature passed the first subdivision laws (recently updated) and required localities to adopt comprehensive plans from which to base not only their development decisions but also to ground their zoning laws.

Progressive citizens in Missoula (as elsewhere) saw planning as the central strategy for making Missoula more sustainable. Missoula's first Comprehensive Plan was finished and adopted in 1975. The county followed with a revised zoning law. The city's updated zoning law however was defeated politically.

This began the latest chapter in the long struggle between those who supported progressive planning efforts and the conservative elements who blocked the adoption and implementation of those plans.

In the early 1980s, citizens called for a revision of the Comprehensive Plan which would involve hundreds of residents for several years gathering input. Essential to modern planning is citizen participation. And, given Missoula's style of fiscal austerity in governing — more acute

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[1]I base a lot of this chapter on my own personal notes and interviews. Some of the material was published in a different form in the Missoula *Independent*. As a member of the Vision 2020 Steering Committee as well as a member of the Missoula Solid Waste Task Force, I also had personal access to data and early drafts of those plans as well as participating in meetings developing them. In addition, I have been a participant/observer of city politics for many years. I include nothing in this chapter that I did not draw either from documents, on-the-record interviews or personal knowledge. The opinions, of course, are my own.

after the passage of I-105, the initiative that froze real estate taxes — the time-consuming work of planning depends on hours of volunteer citizen help. Yet, it is precisely the citizen-driven nature of planning that raises opposition. Much of the citizen input into the 1985 draft was challenged, and the plan — much revised — was finally adopted only in 1990.

During the same period, the planning office (reorganized twice) drafted energy efficient subdivision regulations — called for in the contested comprehensive plan update. The measure presented in 1984 was not approved by the County and approved only as voluntary (and therefore meaningless) guidelines by the City. Brey attributes the action to pressure from conservatives: "...it was apparent to observers that extensive lobbying took place. Developers, builders, and their associations approached individual elected officials to express their opposition ...." (42) Among the harsh critics of this — and any planning and regulation — were the Missoula County Freeholders (an arch-conservative property-rights group), also instrumental in opposing the comprehensive plan update.[2]

Brey also attributes the defeat as resulting from new membership on the governing bodies. In the early 1980s several progressive and environmentally-minded members retired from city council. Although their successors were also nominally Democrats, they were more conservative. This formed the beginning of a bloc which would dominate council for a decade and opposed planning, neighborhood and citizen-based planning in particular, and implementation of plans.

Even with this anti-planning sentiment, some efforts continued. (In fact, if anything the 1980s could be called Missoula's planning decade.)

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[2]Also particularly vocal were folks in outlying rural areas such as Clinton who felt they should not be included in an urban area plan.

Transportation planning for anything but cars proceeded slowly. In the Rattlesnake, at least three different plans were drafted and none adopted. It was not until 1993 that the Non-Motorized Transportation Plan saw completion and adoption, after having to go through at least three drafts by three sets of planners. Significant issues in that were to what extent citizen input should shape the plan and whether or not implementation would be carried out. A controversial plan by downtown business interests to site a footbridge over the Clark Fork, in particular, raised questions concerning the character of public input and caused the plan to be delayed. Its final version declined to resolve (again) that dispute.

Similarly, in 1990, the public awareness surrounding Earth Day prompted citizens to call for community-wide recycling service. When the local garbage hauler, Browning Ferris Industries, opposed providing that service, the Mayor organized a Solid Waste Task Force to draft a plan. Health department officials actively participated because they had concerns about hazardous waste. Since Missoula was in the process of forming its water quality district, many of the health department issues eventually fell under the auspices of the district.

BFI and other waste industry representatives stonewalled discussion on a recycling program, even after a survey of the community showed a substantial majority of citizens interested in and willing to pay for such a program. In the end, no agreement was reached on this fundamental issue, and no recommendation was made.

When the comprehensive plan for solid waste was finished two years — and hundreds of citizen hours — later, neither governing body was interested in even reviewing it. They did adopt a one page resolution establishing policy in 1993. Whether or not the task of drafting a detailed

plan was intended to be a delaying action in the hope that citizen energy and attention would fade by the end, that was the result.

Also during the last decade, several neighborhoods drafted their own detailed "Amendments" to the Comprehensive Plan that were adopted by the City or the County. These include plans for Lolo, the Wye, Grant Creek, Reserve Street area, part of Miller Creek, the South Hills, the Rattlesnake (several times), the Historic Southside, the Riverfront, as well as two Urban Redevelopment districts.

These plans were never without controversy. Conservatives on City Council, for example, consistently resisted spending money on planning. In fact, the number of planners on staff in OCD remained the same throughout the last decade, only increasing in 1991.

Nevertheless, plans were adopted.

Implementation was another matter.

One way plans are not implemented is by strategically underfunding the follow-up. For example, the Historic Southside Neighborhood (and Riverfront) Plan designated parts of the riverfront as eligible for protection under a resource protection overlay. (Similar language in the Rattlesnake plan has held up its adoption.) An area was designated as a historic district as well. Despite specific description of the need for sensitive consideration when any development was proposed, the city attorney deemed the plan not enforceable until specific criteria were drafted and approved. And even though the adopted plan called for drafting such criteria, and while a resource protection ordinance, which would designate areas along riparian zones, hillsides and slopes, plus historic cultural and other environmentally significant resources, and set

guidelines for their use, has been official policy of the city, the conservative council refused to fund planners to work on it. By refusing to allocate money to do the work to develop specific criteria, the conservative bloc was able to prevent the plans from having any meaning.[3]

There are several major tools the government has of implementing land use plans. One is through infrastructure. A community can shape development by putting in place improvements like roads, water and sewer, or by withholding such services. Sewering is the most effective device in Missoula, and will become increasingly so as water quality regulations become more stringent.

The second tool is land use is regulation through the state subdivision law. Unfortunately, local entities have no sway over those rules which were drafted with an empty, rural state in mind. However, the 1993 legislature revised those laws and the local governing bodies are updating them.

The third main tool is regulation through zoning.

Another recent effort was made to revise the 1937 zoning laws in order to attempt to implement recommendations in the updated comp plan after its adoption in 1990. Overall, the draft zoning ordinance attempted to conform to the plan. The zoning revision came under fire from homeowners groups, however. A group of University area homeowners felt the sanctity of single-family units in their neighborhood would be threatened. After three drafts and nearly $100,000, the Council decided not to adopt it. They also refused to budget more money to overhaul zoning, committing themselves to having to deal with rezonings case-by-case.

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[3]Ordinances protecting riparian areas were adopted by the County and the City in 1994. More comprehensive protection is likely to be adopted in 1995.

The 106-unit Elk Hills development in the South Hills was one case. Neighborhood homeowners got together in the mid-1980s and drafted a comprehensive plan for the area. Worried about problems stemming from building on the steep hillsides, as well as traffic, wildlife and other issues, the plan called for having many fewer homes than previously slated. The plan also stated that no new commercial area would be approved until a study was completed to determine the best location. This plan was adopted in 1987.

In 1992 a developer proposed building a large housing project with a commercial area in Elk Hills. Even though five years had passed since the plan was adopted, the site was still zoned to allow for 192 units of housing and 8 acres commercial. The developer made a compelling case that she should be allowed to build because the property was zoned for it. Negotiations with the Office of Community Development led to the approval of the development at a level much smaller than the maximum zoning allowed, though at much higher density than the plan allowed. [4]

"It's markedly inconsistent with the 1986 South Hills Comprehensive Plan and the 1990 Comprehensive Plan," Linda Frey, a South Hills resident, pleaded before Council. "We are not opposed to development and most of us I don't think are but we are opposed to development inconsistent with the South Hills Plan. What does the South Hills Plan propose--'Residential development, park, open space.' It clearly stipulates in that

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[4]Obviously, this particular plan does not conform to the Register-type of eco-development in that it is not high density, nor does it have neighborhood commercial, i.e. within walking distance; in fact, the issues were precisely these elements. However, the neighborhood itself developed this plan, and the governing body approved it. I argue that neighborhoods will continue to demand low-density as their only understood choice other than overdevelopment. They perceive higher density projects like Elk Hills as a foot in the door, and history has born them out. My point here is that neighborhoods like the South Hills and the Rattlesnake will resist high density and commercial development as long they understand that the governing bodies will renege on adopted plans.

plan that no commercial areas will be designed unless a study has been performed. This has not been done." (Missoula City Council Minutes)

"When elected or appointed officials do not follow through on an adopted plan or agreed-upon process, previously active citizens become frustrated, feel betrayed and commit their efforts to more fruitful private pursuits," former zoning officer John Torma expressed.

Torma worked in OCD for four years in the mid-1980s. Reflecting on the South Hills Plan in 1988, even then a perennial problem, he commented, "The city council, when it adopted the plan, was non-committal in its intentions to carry out its recommendations, especially in regards to reducing allowable densities and eliminating multi-family development. . . . council members voted to adopt this plan but did not commit themselves to approving requests to down-zone South Hills property in compliance with its recommendations." (Torma, 62)

Frey said, "I think that you risk, if you overturn these kinds of plans, sending a signal to the neighbors that the comprehensive plans mean nothing. One person asked, what kind of a signal are we sending to developers? The signal we should be sending to developers is we mean these comprehensive plans. We didn't get community involvement to throw it away."

Richard Gotshalk, a citizen who has been active in many planning efforts over the last decade, said, "Council passes plans without the intention to follow through on them. It can make you cynical about support for planning. It's an easy way out, and it can lead citizens to feel as if their energy was diverted."

In 1992 Torma said, "Right from when the South Hills plan was first discussed, some council members such as Al Sampson said, 'I'll vote to adopt it but I won't vote to implement it.'"

He went on, "Right here in 'River City,' we have back-room politicians who make decisions amongst themselves. They give citizens an occasional taste of participatory democracy and end it there."

This glaring departure from planning strikes home even with the development community, who often feel stuck in the middle.

Nick Kaufman, one of the busiest developers in town, said, "To be effective, planning must be implemented."

Also a former planner at OCD, he has observed and commented on many of the planning efforts done over the years. He noted, "All have sections on implementation and recommendations. In all but a few there has been no funding for or prioritizing of implementation."

He acknowledged that the South Hills was not rezoned, and said he regretted no study of commercial sites was performed. But he took issue with the neighborhood plan.

"I don't think a comp plan is valid if the recommendations are unrealistic. You should consider a solution set that's within your grasp. Expectations must meet tests of economic feasibility and political acceptability," he said.

One result of the Elk Hills controversy was a revitalized assault on neighborhood-initiated planning. Although the Comprehensive Plan calls for neighborhoods to plan their own areas, because in a case like the South Hills the citizens failed to address larger community issues — the need for multi-family housing being the most obvious — critics renewed efforts to shift planning away from citizens.

Donna Shaffer, a conservative council member at the time who voted down neighborhood planning in her own North Side neighborhood, was sanguine about Elk Hills.

"The comp plan said one thing, but the owners' rights are another. You can't take away those rights without compensation, and rezoning does that," Shaffer said. "That's the problem with plans — they sometimes run into cold realities, and something has to give."

Mayor Daniel Kemmis bemoaned the process which results in citizens like those in the South Hills becoming a "wasted civic resource."

Citizen input is, Kemmis said, "very valuable. If the plan is not comprehensive, then it is wasted. But they must take responsibility for the community."

Kemmis wanted the community to develop an overall vision — the objective of the Vision 2020 process. He claimed that the only way the community would get anywhere was if everyone was "buying off on where we're going."

Past planning process — which would include citizen-based neighborhood plans — "doesn't invite that covenant," he said in 1992. "The only real chance of success is if there is a broad cross section and as great a depth as possible involved."

It is important at this point to examine what conclusions were drawn from events like these. Two different views focusing on the way public participation creates political controversy vary considerably. John Torma, who had spent years on the front lines of the planning office, concluded in 1989 that "Until local government establishes a more consistent system for

utilizing this citizen participation, the ...process...will remain unnecessarily difficult." (88) Torma proposed a Missoula "Office of Neighborhoods" and a citywide network of recognized neighborhood associations which would be incorporated into the process. He cautioned: "It is unrealistic to think that all conflict can be removed from the political process. In fact, a conflict-free process does not necessarily indicate civic health." (iii)

Although Torma and Kemmis both base their writing on some of the same political philosophers (notably Benjamin Barber), Kemmis drew a different conclusion in his 1990 book — published after his election to Mayor. He also focused on citizen participation, bemoaning the ability — amply demonstrated by these cases — of a small group of nay-sayers to block action by the majority. This leads to "stalemate" — his big fear, and soon to be the nation's under the term "gridlock." He lamented the adversarial style of politics and the fact that citizens must give input in the form of competing interests. "The public hearing room is our society's favorite arena for the blocking of one another's initiatives." (52) His case against public hearings is the demise of the 1985 Comprehensive Plan Update. Kemmis writes: "In many instances in which public undertakings or community development initiatives are blocked, there is a latent public consensus that would be more satisfying to most of the participants than what finally emerges. But in fact this consensus rarely sees the light of day." (64) Kemmis then pursues what he thinks will lead to the emergence of that consensus. "Cooperation is central to the politics of inhabitation, and it will have to extend to cooperation between the right and left, between Democrats and Republicans, even between environmentalists and corporations." (139)

For Torma, then, the solution is empowerment. For Kemmis, consensus through cooperation. As mayor, Kemmis then conceived of Vision 2020 as an effort to put competing interests together in a planning effort, seeking through this presumed cooperation that a consensus would evolve.

When citizen involvement articulated the very "latent public consensus" expected (which I have described above as a call for a sustainable community), non-cooperating interest groups nevertheless blocked it. After a year of gathering responses from citizens in an open process, Vision 2020 was challenged by the Chamber of Commerce, the publisher of the daily paper and other business and development forces who claimed to be excluded.[5] Originally participating to a significant degree, as results began to emerge, development interests backed out of "consensus."

In a backlash on almost every planning effort, the Council eliminated funding for Vision 2020 as well as all other progressive projects.

Yet again, planning had collapsed.

Why? Is planning a ruse? A fundamentally bad strategy to follow? Should we therefore abandon all planning?

To answer that, we must place planning — and the sustainability discourse itself — in perspective. Planning doesn't happen outside of a political context.

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[5]Of course, the idea that powerful development forces such as the sole daily newspaper could be somehow denied a voice is ludicrous. In fact, the paper chose not to participate quite early in the process, deciding that it would be fruitless if the County government was not involved. That became a self-fulfilling prophecy. The recent (March 1995) pledge of participation in the Growth Management process by the paper, therefore, could be a significant step forward.

One substantial problem with the discussion of sustainable communities has been the fundamental misconception of planning and its implementation.

The problem with Register's (and others'[6]) eco-city vision, beyond any cries of utopianism or any specific disagreements such as over Register's fancy for skyscrapers, is that it is exactly and only a *vision*. In his recent article, Register himself raises the question as to why his ideas have not been taken up.

"For years I have asked myself why governments don't make plans for the benefit of life on Earth. They make plenty of big plans but none that seem to fit that description." (1993, 4-7)

He answers his own question in a couple different ways. In an understatement of towering proportions, he says, "The straightforward answer is that governments don't represent people who think that broadly; they represent many other more limited and self-centered interests."

But his response to that is to do more visioning. "It is up to those of us who do want an ecologically healthy future to make those plans ... we need a new vision of cities..."

He spends half the article answering (again) his question "So what would the ecological city look like?" pausing from time to time to comment that "the vision is not clear" and that we "should try to visualize much more thoroughly what the ecologically healthy city might look like."

After envisioning this, he says, "I am not as encouraged ... as I would like to be. The small pieces of the picture simply aren't adding up fast enough."

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[6]Several communities have drafted visions or plans for sustainability, including San Francisco's Green Plan, and one in Portland. Even the editors of *Society and Nature: the International Journal of Political Ecology* write: "The inability of the ecological movement to propose an alternative social 'vision' is, for us, the basic cause of its crisis and its gradual withering away. " (v)

So, as we in Missoula have discovered, "vision" is not enough.

He decides (rightly) that society needs to address directly the pattern of land uses, "Perhaps the way to break through to those more fundamental issues is to approach land use as directly and controversially as possible. Stir up people's interest, even hostility, then put out a complete vision and defend it for all its creative potential."

He decides that should be done by tackling the archaic and emotionally charged set of zoning laws. (Note also that he continues to use the idea of "vision.") We have seen above that planning often quickly shifts to zoning as an attempt to implement the vision. And zoning — as currently conceived — is responsible in part for problems in development.

As urbanist Kenneth Schneider points out:

> Two major factors about zoning are paramount. First, although zoning is now central in planning practice, it is based entirely on a *negative vision* of the city: to segregate and protect the bewildering variety of conflicting functions created by industrialization. Mixed or incompatible land uses [according to this vision] destroy ... property values....
>
> Second, the separations demanded by zoning were nearly as instrumental as roadways and automobiles in creating the inordinate distances underlying the functionalism of cities. (64)

Register says his Berkeley group has announced "that it has rezoned Berkeley and is moving ahead with plans to use that new ecological zoning map."

While this idea has imaginative potential as guerrilla theater (one perhaps applicable here), Register completely misunderstands zoning and how it comes to be. He says they expect a reaction of shock. I would expect little reaction at all, for the same reasons he seems to expect one.

"Most people in their neighborhood associations, most business people, and most local politicians see any talk of a change in zoning as a big

red flag. They are all comfortable dealing with the predictable changes that occur in the ponderous ways cities slowly get worse," he writes.

Changes in zoning are indeed threatening. As Richard Babcock writes in *The Zoning Game,* zoning was invented to strengthen private property rights. "To put it more specifically, zoning has provided the device for protecting the homogenous single-family suburb from the city," — a fact so fundamental that he says "Only if we remember that the central goal — the insulation of the single-family district — is unchanged, can we admire the vast changes in devices which have been employed to further this immutable objective." To suggest that zoning should (or even can) be used for a radically different goal ought to be shocking. But Register's proposal is unlikely to be taken seriously, largely because he doesn't "get" zoning.

"Zoning and planning laws, rather than directing urban development, act instead like a securities and exchange commission to prevent obvious market abuses and direct public debilitation, such as health and fire hazards. Otherwise such laws have little effect," Schneider points out. (73)

Babcock points out that zoning doesn't need to be conceived (as it usually is) as a tool of planning. "Zoning needs no purpose of its own. . . . Zoning is a process. It is that part of the political technique through which the use of land is regulated." (125)

In fact, zoning is a body of law. The threatening aspect of zoning changes stems from the fact that they are *legally binding*. Register misses that entirely:

> For several years I am sure, the ecological rezoning map of Berkeley will not be officially adopted nor integrated into the code, but it is likely to gather legitimacy since it relates honestly to the problems of

> the future while the existing zoning does not. Environmental groups opposing development outside of the walkable centers or development that promotes auto dependence can refer to the map in justifying their positions. For builders, the map will indicate what can go where with good social and ecological results. (7)

The problem here is that the *only* use zoning has is that it has been adopted and therefore has the force of law. No one follows imaginary zoning! And since zoning is a legislative process, and since proposed zoning changes bring into play all the actors Register expects to be shocked, it is not clear how this eco-zoning eventually gets adopted.

"The existence of zoning is based on political decision, making zoning an arena in which sharp business competition inevitably favors the powerful. Although a planning commission or city council may resist the henpecking at established zones by small operators, it lays prostrate before the power of commercial eagles," (105) explains Schneider. He describes a case in Fresno California where a large commercial development was proposed outside of town.

"...the proposal was completely contrary both to adopted plans and to existing zoning. But the politics worked smoothly after a first denial, and the change was accepted through a combination of quiet work with politicians, idle promises of development in the downtown, and a threat to move the proposed center to a suburban municipality or not to make the investment at all." (106)

We have seen zoning and planning similarly bandied about in Missoula.

Ultimately, Register's flaw lies in perceiving the problem as largely a design issue and the world as one where clear pictures (visions) and good ideas rise to fruition on their own merits. The often short slide into

totalitarianism in much utopian writing comes from this perspective: that society should and can fit some better picture.

When the question "how do we get from here to there?" is posed, usually it is answered in terms of phased construction, assuming that someone has already decided to construct it. Fundamentally, Register's work is like a piece of legislation without a clause enacting it: as clear and powerful as it might be, it contains nothing to make it go into effect.

Why would anyone build an ecocity?

Obviously, a sustainable community does not happen as a result of only a vision or plan. We see that planning, and implementation techniques such as zoning, happen within institutional constraints. In Missoula, the zoning laws were adopted in the 1930s and based on the ideas of segregating uses, and they have been tinkered with over the years. This patchwork of law has inherited, therefore, several layers of institutionalized ideology. And however problematic the assumptions behind zoning may be, the laws are real. As seen in the Elk Hills case, when forced to choose, the governing body must abandon complex plans for the crude, but binding, zoning.

Another institutional constraint on development is how much of city development is designed.

Architects design buildings and sometimes larger projects. However, the vast majority of houses in Missoula (and in most cities) are not designed at all but simply built. Individual owners might spend a great deal of time and money at the zoning office and yet use a house design from a mass-produced kit.

Even "architected" buildings aren't likely to transform into eco-buildings simply because the vision is a good one. Amory Lovins of the Rocky Mountain Institute writes about why energy-efficient design hasn't caught on. "The reasons for this massive market failure lie within the institutional framework that shapes how buildings are and have been financed, designed, constructed, commissioned, operated, maintained, leased, and occupied. Nearly all of the roughly two dozen actors who play a role in this process have perverse incentives that reward inefficient practice." (16)

He begins with developers, whose "profits are based on immediate resale value" not long-term issues. "Yet developers control the design choices that largely determine that performance." Lovins then details the ways the other players end up making environmentally poor decisions: lenders don't study new technologies, they close deals quickly; appraisers don't understand the technologies, and so misvalue short-term over long-term; designers, architects and engineers work separately, not taking into account each other; the engineers who do the heating system are called in last after the building has been designed; just-in-time designing rather than time-consuming integrated design is cheaper; fee structures encourage pre-packaged designs and percent-of-cost of project fees encourage oversizing of systems; contractors are rewarded for cutting corners; maintenance can not be assured; leasing doesn't encourage efficiency — it is either irrelevant or counterproductive. (Lovins suggests solutions to these institutional problems, too.)

Lovins' argument can extend to areas other than energy. For example, creating looped systems — like recycling — while having an economy absolutely (i.e. materially), don't necessarily have short-term,

localized market or exchange value efficiency, so that individual actors will adopt them voluntarily. Also, building codes and health regulations can prohibit or discourage environmentally responsible materials or practices such as composting and greywater systems.

Another reason the ecocity is less likely to "just happen" is that building is isolated. Zoning itself helps encourage isolation by isolating development decisions. Zoning is applied lot by lot, whereas the larger urban design issues don't work that way. Ecocities are about integrating and creating more looped systems. Lot by lot development flies in the face of that.

Of course, urban design, planning, regulation and codes, etc., are implemented politically, through the political process. As we have seen, zoning is about money and political clout. All of the cases of failed planning or twisted zoning need to be seen in their proper political context.

John Logan and Harvey Molotch, urban sociologists, see the political organization of cities as designed to foster growth. This drive is organized as a "growth machine." In addition to the obvious business members, especially developers, the growth machine includes politicians (who need money to survive), local media (especially the daily newspaper because their market will only expand through growth), utilities, and "auxiliary players" such as universities, museums, unions and corporations.

This analysis of the power structure describes how the issue of growth "consistently generates consensus among local elite groups" (50) who "use their growth consensus to eliminate any alternative vision of the purpose of local government or the meaning of community." (51) This view believes free markets alone should determine land use. "Aggregate growth is

portrayed as a public good; increases in economic activity are believed to help the whole community. Growth, according to this argument brings jobs, expands the tax base, and pays for urban services. City governments are thus wise to do what they can to attract investors," (33) despite the fact that growth never pays for itself. This coalition developed historically as places began competing with each other in the nineteenth century, for example, over railroad location. We have seen that Missoula successfully bid for the railroad division point in the 1880s by offering substantial local land.

Similarly, Davis sees Los Angeles as

> a succession of power structures made coherent by common *accumulation strategies*, and distinguished by specific modes of insertion into the larger power structures of the Californian and national (today, international) economies. In almost every case, moreover, the new strategies and elites have been generated by restructurings of the political economy of land development. As a general rule, changing modes of land speculation have tended to determine the nature of Los Angeles's power structures. (105)[7]

Logan and Molotch point out that some modern residents do organize in opposition. Neighborhood organizations and environmental groups are among the main opponents to the growth machine. Logan and Molotch also detail the "paradoxes" of neighborhood groups, such as the fact that the strongest neighborhood organizations are in the most affluent neighborhoods, not only the least in need of defense but also containing members who have much in common with the growth machine itself. (Vogel and Swanson also suggest possible conflicts between the

[7]Providing an alternative view, Newman and Kentworthy critique capital accumulation writers by comparing urban development internationally (not all cities have developed the same way). "The planner has a role to play and given some priority in the political process they can assert values" beyond the market. "Whilst not underestimating the power of private capital, cities can be bigger than the wealth and power of their collective private citizenry." (102) For that matter, Logan and Molotch point out how *local, place-based* capital may not have the same interests as *international, mobile* capital.

environmental movement and neighborhood groups over growth control. These conflicts are obviously the ones Register hopes to resolve through his eco-zoning.)[8]

We have seen, in the case of Vision 2020 and other local planning efforts, the local business and free market interests flex their muscles whenever citizens expressed values that might not be "good for business." In the case of the Non-Motorized Transportation plan, successive rewrites were required to appease perceived threats to private property (trails and pedestrian facilities might claim easements being used privately) and to preserve the possibility of a bridge favored by downtown business interests. The Solid Waste Plan was an attempt to orchestrate consensus between citizen activists and a major corporation, the latter in the end winning a waiting game and pursuing its interests unchecked.[9] When residents claimed property interests, as in the Elk Hills zoning case, individual property rights intent on development were held as the higher claim. And, significantly, development interests used incidents like that to assault neighborhood-based planning. Claims that neighborhood decision-making stifled community goals such as affordable housing covered a development agenda, just as, later, the banner of affordable housing was waved to counter calls for open space preservation.

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[8]Davis details at length the underlying racism in much of Los Angeles' homeowners associations and the "slow growth" movement. Such exclusivism leads some on the Left to side with the growth machine, even in communities like Missoula where it is a relatively uncommon element. Davis himself contrasts L.A. growth protestors from the more includsive movement in the San Francisco area.

[9]I have long criticized a misplaced notion that citizens and powerful entities such as corporations can come to meaningful consensus. While a proponent of consensus as a tool for democratic decision-making, I understand that consensus requires participants to sit down as equal players, and representatives of corporations — no matter how progressive — *cannot* participate in that way. Not only are they much more powerful than other "citizens," but they are responsible to the corporate bottom line and stockholders and are therefore not free to be persuaded significantly. Another key element in consensus process, in my opinion, is that all participants have some level of affinity — consensus only being possible at that level. Given that some things such as class position are, in fact, fundamental differences, meaningful consensus is impossible. See also Katherine Coit's "Local Action, Not Citizen Participation" in Tabb and Sawyer.

In the case of Vision 2020, a single line expressing the positive value of organized labor inspired enormous reaction in the business community. The publisher of the daily paper, in refusing participation on the basis that "the report is essentially a political document" because it expressed ideas not pro-development, challenged citizen expression that "organized workers are good for the economy," saying, "Shouldn't we instead acknowledge that high-paying jobs with good benefits are 'good for the economy?'" The publisher was among several business leaders who challenged the document on the basis that the steering committee lacked "representatives of the private sector" (although it had realtors, top executives of a local hospital and the water company, as well as the head of the local economic development and redevelopment agencies, among others) and "of natural resource industries."

The latter was certainly true, though given their position and role in the community it is easy to see why executives from local mills declined to participate. The large timber firms — Stone Container, Louisiana Pacific, Plum Creek and Champion International — have headquarters elsewhere, with significant interests in other places. In fact, these major corporations have no permanent stake in any place: within months of the report, Champion sold all its Montana holdings and left.

Kemmis, recall, had determined that only by putting together in one room, as it were, the various interests in the community could a consensus be formed to break a perceived deadlock. In fact, however, a consensus already existed in two areas: citizens had long expressed their views on the direction the community should take; and the business community had long held their views. Considering that in each case of "stalemate", growth and

development flourished, it is difficult to see how the defeat of planning efforts can be seen as stymieing action. In fact, business as usual continued.

None of this should be surprising. Rather, it is surprising that activists speaking for sustainability would think that such a vision would happen without political struggle. Many of the central elements promoting sustainability are fundamentally problematic to entrenched power. Not only are the essential strategies of commons-building antithetical to free market economics, but the globalized market economy, requiring growth to keep going, is in itself more than likely unsustainable. The project is to build up local "pockets" that are as one planner writes "selectively de-linked."

Missoula citizens have put time and effort into articulating, repeatedly, a vision for a sustainable community. Forces and dynamics, largely economic, but with well-articulated political elements, have stymied the implementation of those visions. While some very real gains have been made, in many ways unsustainable development has accelerated.

This should not be too surprising. At worst, citizen planning is a delaying tactic, a ruse to use up citizen energy while the real business proceeds; at best, planning is merely a beginning. Since the underlying forces driving unsustainable development are systemic, pervasive (and politically powerful), merely looking in a new direction will not turn the ship.

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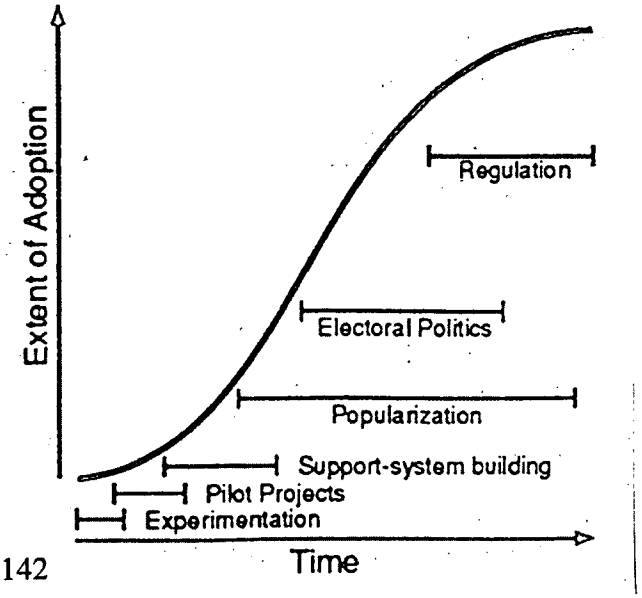
CHAPTER 5:

SO WHAT DO WE DO? STRATEGIES FOR SUSTAINABILITY IN MISSOULA

While it is important not to give up on local governmental planning nor on political process, it is at least as important to understand that much of what needs to be done is not a governmental process. In fact, as Robert Gilman's "Strategies for Spreading Innovation" suggests, electoral politics and regulations are the final stages of effective social change, not the first. He says that innovations spread first through experimentation, then by pilot projects, then by developing what he calls a support infrastructure, after which follows popularization, and only then electoral politics and regulations. As he points out, the ideas of sustainability have been through the experimental and pilot project stages. It seems, interestingly enough, that they have also received fairly widespread popularity in Missoula. The question remains whether the support system or infrastructure is in place, however. Also, since the government has an important function in providing many types of infrastructure, we need to ask strategically what we do need the government to do at this point.

Strategies For Spreading Innovations



While it's quite clear from the above that Missoula's problem does not come from a lack of plans or even visions, I will lay out several recommendations which citizens and policy-makers can take to make Missoula more sustainable. Some of them are specific enough to be laws, some concrete enough to be projects and others are strategies and approaches.

The largest problem here, however, is a political one. The approaches to that fall into two basic categories. The first is nothing new but rather old-fashioned political action, such as organizing, lobbying, electing and so on. The second, more in the spirit of sustainable communities, involves new approaches to public involvement. Efforts like Vision 2020 (and other community planning projects before and since) consistantly fail in applying the public will. Nothing I suggest or the community attempts has much hope of moving forward without the commitment to implement. Unfortunately, new strategies (such as a community-wide charette) tend to be Vision 2020 under another name — a creative but wishful attempt that does not address the fundamental flaw which dooms it. That flaw can be described in two ways: Missoula is a community rife with contradiction, and as such will not readily come to any consensus; elements of the power structure deeply vested in the status quo are also deeply entrenched, but have no reason to "plan in good faith" (to coin a phrase). This is another way of saying that the progressives needed to listen to the public and act in good faith are lacking in the governing bodies and other areas of local power, a prerequisite in this chicken-and-egg dilemma for change.

What are the most relevant strategies at this point?
Any projects or policies must respond to the following:

a) do they, in themselves, contribute to making a sustainable community?

- do they create more integration, such as creating cycles of resources?
- do they physically make the community more sustainable, such as reducing air pollution or resource use?
- do they empower citizens to choose to consume less or act more sustainably, such as make the community more pedestrian-friendly or encourage cooperative efforts?

b) further, do they act as or build support systems for further efforts?

The following are some key examples. First are citizen actions and then government policies, followed by one case in point, a small project. They represent only a handful of the kinds of steps that can be taken to make Missoula more sustainable. They were chosen because they can be done now (even given the current political circumstances) and they are steps forward. I chose these examples over others because they are the kinds of steps that are most critical and do the most good.

The goals at this point must be multi-fold, but they all work toward rebuilding the commons. To conserve and preserve land, shared common spaces need to be created. These also become political spaces, building blocks of democracy. At the project level, the first criteria should be

providing direct benefit to citizens while providing, in the act of creating the project, the experience of working together for change.

CITIZEN ACTION: DELINKING AND INSTITUTION BUILDING

One of the foremost planners in the country, John Freidmann, suggests one of the main tasks is to "selectively delink from the dominant system of market relations, substituting a rich mix of development objectives — social, environmental, economic, cultural, and political — that stresses quality over quantity and points the way to an achievement of a just world order." (348)

The kind of institutions we need rebuild the commons by creating delinked and supportive spaces. Economic institutions based on cooperation need to be fostered. Land trusts and cooperative community banks are two examples. By pooling land or economic wealth for use and control locally, the community is better able to fend for itself in the global market, on the one hand, and become empowered to act constructively on local matters, on the other. In Chapter 1, I mentioned the new forms of lending institutions being tried elsewhere which use criteria of sustainablity in their decision-making. I would like to briefly sketch a potential "sustainability" land trust.

Land trusts essentially change the nature of land tenure. Three kinds have been well developed: a conservation land trust, such as Missoula's Five Valleys Land Trust, which preserves land in an undeveloped state; an agricultural land trust, such as Vermont's statewide trust preserving dairy farms, which seeks to keep farms from being subdivided; and housing trusts (often called community land trusts) which aim to hold rent down

and remove housing from the speculative market.[1] Each shares a common goal (removing land from the market) and uses a common method. The land itself is held in trust by a community organization and its use is constrained according to stated goals of that community. People who use or live on the property have many rights similar to owners, but must act within the constraints of the trust. Farm trust tenants must actively farm, for example. In housing trusts, the tenants have self-governing powers, and usually accrue some limited equity. Sometimes they own the buildings but not the land.

My idea for a sustainability land trust combines goals from all three established kinds. The community would place land in trust in order to see that it is developed sustainably. Energy-conscious and other environmentally-sound building designs would be used. Open space would be preserved through clustering. Existing blocks would be reconfigured. Agricultural areas would operate sustainably and produce food to make the development and the community more self-reliant. Any number of local businesses might operate within this context. Surplus value would also support the trust, which might operate a cooperative bank as well. Overall, this kind of an institution could drive sustainable development.

Neighborhoods as centers of life: as another key institution, neighborhoods should be centers not only for pleasant, sociable residence but also for many other vital aspects of life. The more this is extended, the better it could be. For instance, if neighborhoods are also centers of livelihood, then less commuting is needed. One of the most interesting parts

[1]It has been pointed out to me that these three realms also happen to be three which are most outside of capital. We have not seen land trust-type arrangments for industry, for example.

of this idea I thought important enough to break into a separate idea, below.

Schools as service centers: recognizing the central role schools play in neighborhoods and in childrens' lives, we should increase the amount and kind of services available at schools. Health care and social support services are already starting to be provided. Schools already provide nursing, screening and psychological counseling. Clinic care for families could be added. Schools already provide centers for some recreation and act as meeting places — in fact the Vision 2020 meetings were held in schools. I would encourage extension of these ideas, too: why not community gardens and barter markets around schools? With day care and other programs, the school becomes an ongoing community center, in which the children are taught while interacting in the active life of the neighborhood.[2] Tool libraries and adult education are among the other possibilities.

Key physical structures besides schools obviously include other neighborhood-based services such as the tried-and-true corner grocery store, and links such as the neighborhood promenade mentioned in Chapter 1 and detailed below.

Political institutions to delink and build commons would focus on building neighborhoods. This involves both developing elected neighborhood associations (more of them), and empowering them in the government. As shown, neighborhood associations are officially recognized

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[2]Steps in exactly this direction have been initiated by Women's Opportunity and Resource Development at Lowell school and three other locations. The Family Resource Center, as it is called, offers a number of free services, acting as a neighborhood center. People can participate in ectivities such as craft classes, share with their neighbors, and have access to information about community services. WORD's objective is create a freindly situation where families in need find out about and acces services early rather than at a point of emergency. However, the neighborhood is availing itself of the opportunity to make this center into much more than that.

in Missoula. They are the beginnings of possible neighborhood-based democratic institutions. As more governing takes place at the neighborhood level — housed, for example, in the school — people will begin to reclaim the confidence to combine vision with practical action, and to face political challenges.

However, there is also a need for consolidation of local government. How this restructuring is done is critical. Consolidation, in principle, may be gathering significant support (the publisher who objected to Vision 2020 approved of its call for consolidation), but there are different views on how this should be done, many of which would be a step backward. A consolidated jurisdiction should extend to the urban limits, and be placed within a regional framework. Neighborhood assemblies should be incorporated into that larger system.

THE PART FOR GOVERNMENT: CRITICAL POINTS OF PRESSURE

Even as we are acting on our own, and as we build neighborhood institutions, we cannot fail to be involved in local government because its institutions carry out certain tasks that can have critical impact. In particular, the local government implements infrastructure.

Redefining the infrastructure to include the biological and ecological systems upon which everything depends. Infrastructure is that level of basic physical services we as a community feel is so vital that we give it to ourselves collectively. We should consider the environment in that way. You can't live in a building without water; you shouldn't be able to live in a community without open space. Simply stated, I would like to see as

many people in the City Public Works Department planting and watering trees as we have building roads and curbs.

Infrastructure decisions are a kind of physical expression of an ideology and have an influence well into the future, in a one-way commitment to certain types of action. Whenever possible infrastructure decisions should be influenced toward support of sustainability. What kind of infrastructure will nurture ecodevelopment? Certainly actions like tree planting, restoration ecology, park and open space acquisition and other commons building shape a natural infrastructure that has long term positive effects and helps create a certain kind of community development.

In order to develop commons, public places need to be built and maintained. Neighborhood centers, in particular, will be needed. A greatly expanded and improved bike system, pedestrian-oriented areas and better mass transit are all needed. Throughout, the interrelationship of transportation to land-use must be kept in the forefront. Wildways similarly, trails, natural areas and systems for wildlife (such as corridors along rivers and streams) are needed.

Regulation of development: Certain policy changes can be important. We can assess codes and regulations for environmental impacts and to make sure they don't create barriers to ecodevelopment. Development should bias access over transportation. Narrower streets should be allowed, and streets should be designed for uses other than auto traffic. In order to cluster buildings for conservation of land and energy, under current zoning laws, a special act must take place (it must be rezoned as a Planned Unit Development — PUD — which suspends the rules of zoning and allows for negoitation). This special treatment need not be required.

Zoning laws can include design criteria. These can seek integrated or mixed development and can call for renewable and other environmentally sustainable technologies. Modern concepts of performance zoning — where development is judged on how it impacts the area, rather than judging the land by broad use classes — should be tried. In addition to preserving important natural and ecological resources such as undeveloped hillsides, open space and riparian areas, design standards must encourage sustainable building practices.

Ecological designers have articulated a number of design criteria which I have synthesized into the following common principles. One good overall principle is articulated by architect Christopher Alexander: "Every increment of construction must be made in such a way as to heal the city" by producing "wholeness." (1987) We should keep in mind here that "wholeness" means more than some esthetic fit but an ecological balance I have refered to as sustainablity.

1. integration: human elements should be integrated into the natural environment, bringing humans into harmonious relationship with the natural place in which we live, and development should integrate with surrounding development and the larger community.
2. follow, not force nature: natural systems have particular characteristics and tendencies and it is better (and easier) to follow them than to try to thwart them. We must come to understand our land first. Obviously, in this arid region huge expanses of imported grass for lawns require large amounts of water and fertilizer. Native plants need less intensive care.
3. emergent, piecemeal, small: While our culture is biased to value the massive, with gigantic retail stores now the latest of many such

fancies, sustainable development takes place gradually, bit-by-bit as it were. Design standards — as well as public improvements — can put a premium on small developments which emerge from existing development and work to make them better.[3]

4. democratize: development should take place with participation by anticipated users and neighbors and also strive to foster democratic citizenship, such as creating public spaces.

5. equity: similarly, development should promote social equity, such as including a mix of income levels in housing and a mix of housing options to allow for flexible needs such as single parents and the elderly.

6. context: development should always be in relation to its context. Beyond integrating with its surroundings, it needs to relate to different scales, a large project not only taking into account how it works well with its small parts but also with the neighborhood, community, region and globe.

Specific and complete design standards would need to be developed. There are any number of models available, such as the Ventura, Ca., "Ecological Planning Principles" and the Lancaster, PA, "Community design guidelines." Missoula's citizens can readily draft their own localized guidelines.

A CASE IN POINT

To begin at home, mostly as an exercise, here is a description of a possible regeneration of my neighborhood. This small project seeks to

[3]This is not the same as the atomized lot-by-lot development currently enforced by zoning. One good rule of design is Alexander's principle to always "make things whole." When following the community-wide goal of integration, piecemeal development strives to make small projects "heal" the surrounding area. Lot-by-lot development implies that individual actions are autonomous.

improve the physical design of the neighborhood to allow for more pedestrian use, which not only reduces air pollution but makes the social life of the neighborhood richer, not to mention safer, by putting more people on the streets. The other goal, equally important at this point, is to strengthen the neighborhood as a community-within-the-community by pulling together residents. There is no neighborhood association at present, and any project of this sort would need to be developed by such a group.

Almost all the houses on my street are now owner-occupied, a gradual change-over from rentals, a result of housing pressure combined with the end of neighborhood "redlining" by local banks. There are several rentals on the block, however. In order to redesign the block itself, either an extraordinary new cooperative arrangement needs to be developed or the property brought under single ownership (essentially un-subdividing), neither of which is likely in the near future. (Such blocks of property should be the goal of a sustainability land trust.)

Therefore, a first step would be to begin a neighborhood promenade on our street by creating a slow-street.

(see graphic)

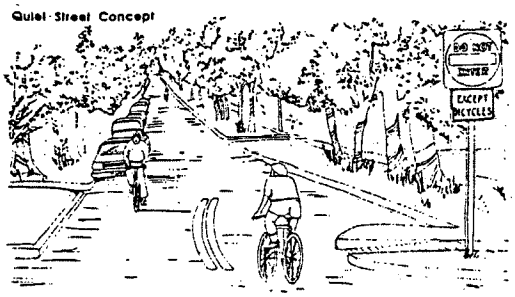
The residents (owners) of the street would agree that because this is a residential street (near an arterial) with a number of children and animals living on it, we should convert its orientation toward pedestrian use and away from auto use. (Not only do people trying to circumvent Broadway use it as if it were an arterial, but a few neighborhood residents zoom through at high speeds in their suped-up vehicles.) Since this is by consensus — and a new idea for this community — the initial approach would be temporary: construct a temporary traffic choke on the incoming lanes. Less than half the street is blocked, which allows for emergency

vehicles as well as residential parking. In fact, the street is not closed to traffic at all. The barrier can be constructed using sandbags to form a large planter which the residents landscape. This barrier is temporary — just take the bags up and sweep the dirt away — and might need to be so for snowplows in the winter.

Next, moving out from my block, if the neighborhood promenade goes through this street, then the north side (e.g. in front of my house) is cleared of parking and a ten-foot pedestrian-oriented pathway designated. By pedestrian-oriented, I mean that bikes would be allowed, but only when they conform to pedestrian speeds. (In a slow street, of course, this is not really needed — it is essential in other stretches of the promenade, however.)

The promenade, as described in Chapter 1, connects the neighborhood to places residents need to go, as well as providing (and creating) an enjoyable circuit through the neighborhood. The places needing connection in my neighborhood are Lowell School; the neighborhood store, Toole Ave. Market; the laundromats on the commercial strip at the edge of the neighborhood; the neighborhood across the tracks (the North Side); the services in the neighborhood directly between ours and downtown, specifically the medical complex and Safeway; and, eventually, downtown. (These are increasingly more lengthy walks, all feasible for many but less likely and definitely outside the neighborhood.) If other services bloom in the near neighborhoods, those become draws as well. (see graphic)

The Promenade would naturally center on Lowell school. Heading south on Hawthorne to Cooper, it might then jog east to connect with Toole Market. Eastward it could continue either to Milton, the last street before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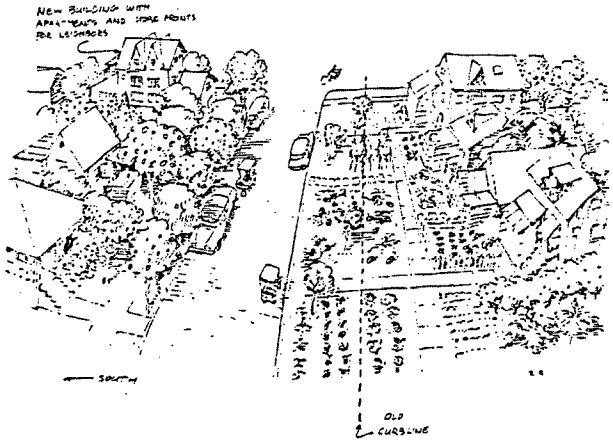
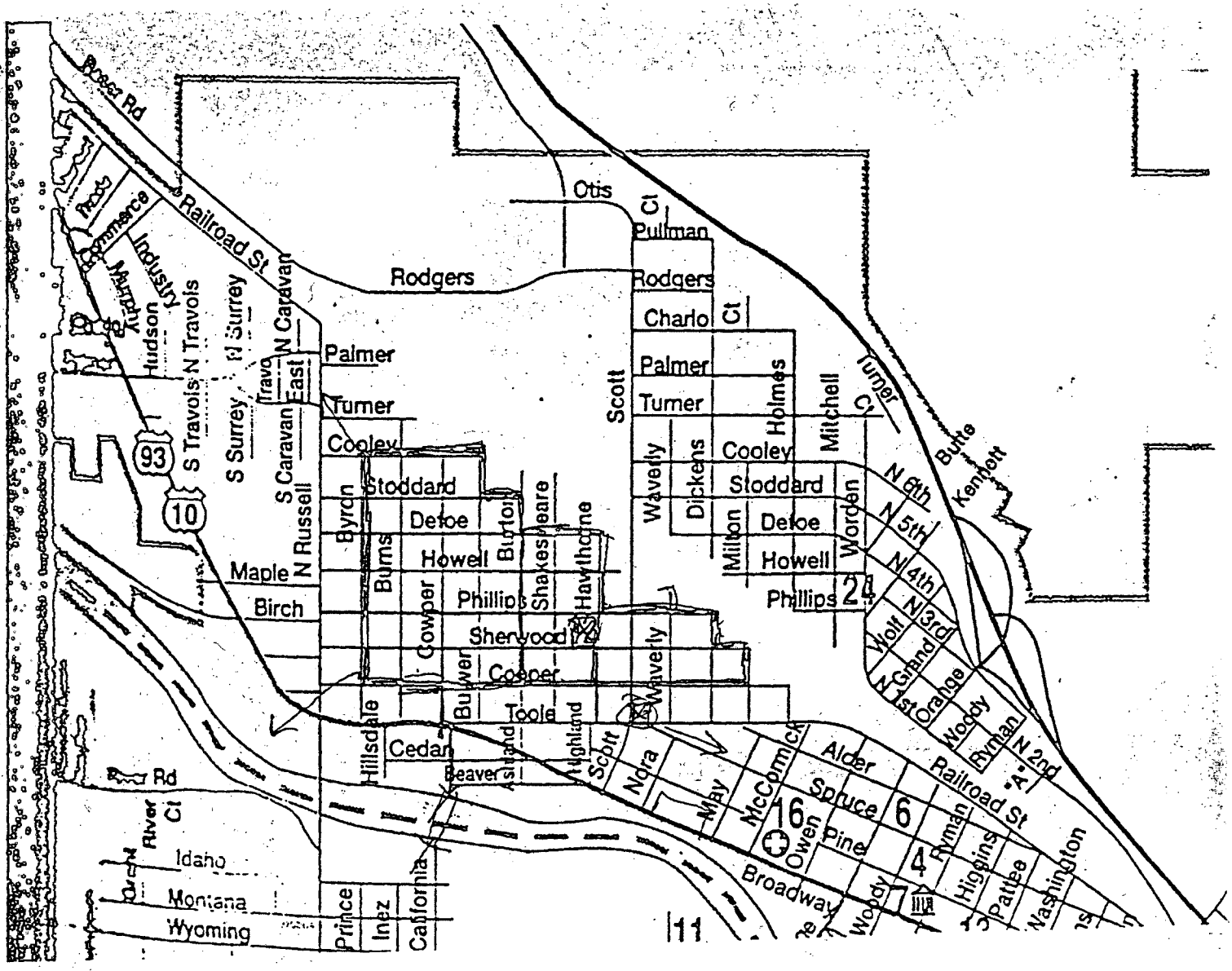

NEW BUILDING WITH APARTMENTS AND HOME FRONTS FOR NEIGHBORS
SOUTH
OLD CURBLINE

the tracks — or if RR property can be used, along the tracks — to Dickens. The former passes through more residential streets. Heading north, it again would encounter the tracks, and must turn west on Phillips. Two thoughts at this juncture: first, this point along the tracks where the spur enters the mainline is already used as a grade level crossing and poses itself as an ideal spot for connection with the North Side; second, if possible, a trail under the Scott street bridge along the tracks to Hawthorne would avoid the busy Scott Street crossing. In any case the promenade should go up Hawthorne to Defoe and proceed west to Burns, north to Cooley, west to Byron and south to Cooper, where it would then head east. Pedestrian easements, of course, should jut out from this promenade to link with services: the school, Toole Market, the warehouse, Travois Village, Dales (Phillips and Russell), Greyhound and the strip, the laundromat (Burton and Toole) etc.

By the way, this route raises an interesting issue, or dynamic. Such promenades should be (or become) scenic, esthetically pleasing routes that people enjoy using. While parts of our neighborhood fit that criterion, others, notably the RR and some of the development along the edges, are distinctly ugly and neglected. Could siting a promenade through such areas stimulate the neighborhood to refurbish them? Also, the neighborhood has a potentially delightful promenade route from which it is cut off and vice versa. Is the mini-neighborhood across Broadway (formerly Shady Grove etc.) part of this neighborhood? It is positioned along the river, and will hopefully have a riverfront trail as well as the pedestrian bridge at California Street. Our neighborhood will use that bridge and needs an effective access to it. The current situation (the crossing light at Scott) will not do, but Broadway will remain a major arterial. In any case, a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promenade connecting to that mini-neighborhood, the riverfront (the bridge) and along it to the new development across Russell would be key (and highly used).

Obviously the concept can colonize easily: Toole Market serves the Little McCormick neighborhood, too, and a promenade there can be conceived; Travois and the North Side have their own needs for such a network, etc.

This promenade would supplant one side of street parking, be of sufficient width, be landscaped and include other amenities to make it useful and pleasant. These amenities would not necessarily cost much, and could be paid for by an SID or donated by residents.

Lowell School would be used for more and more neighborhood services, such as community center, health care center, etc. The promenade should be developed (including perhaps construction) by the neighborhood through an elected association, which would need to be established. While this particular project does not address many other concerns (water and waste, non-transportation energy use, work, flora and fauna, cooperative enterprises, etc.), it provides an important movement by bringing the neighborhood together to proactively improve their lives and the environment, beginning to regenerate not only their physical surroundings but their social power.[4]

Every neighborhood should do something of the kind. As each begins its own regeneration, the entire community becomes more whole.

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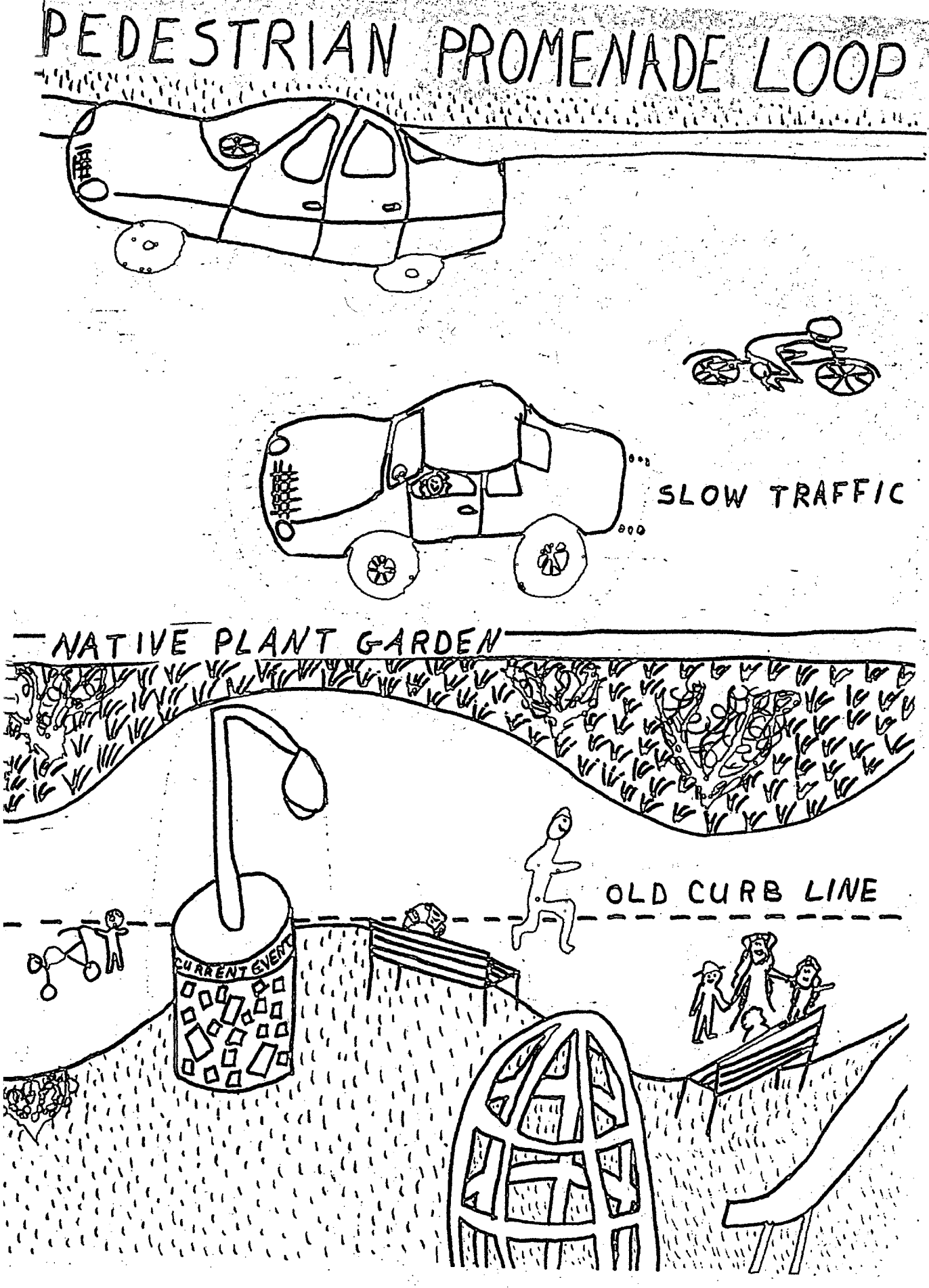
[4]In fact, these proposed projects are evolving because of neighborhood involvement — as they should. A neighborhood group has proposed a traffic calmed street running north-south bewteen the California Street bridge and an ice rink proposed on Turner, perhaps using Burton or Cowper. Another resident proposes a variant on the promenade loop, combining existing sidewalk and new walkways on the street to make a connected system. Many blocks do not have sidewalks, or have owner-installed short stretches, and many homeowners resist having them installed. The proposal would allow homeowners to trade parking for a walkway on the street or pay for sidewalks in order to keep parking. The key here is the creativity and commitment of the neighborhood citizens.

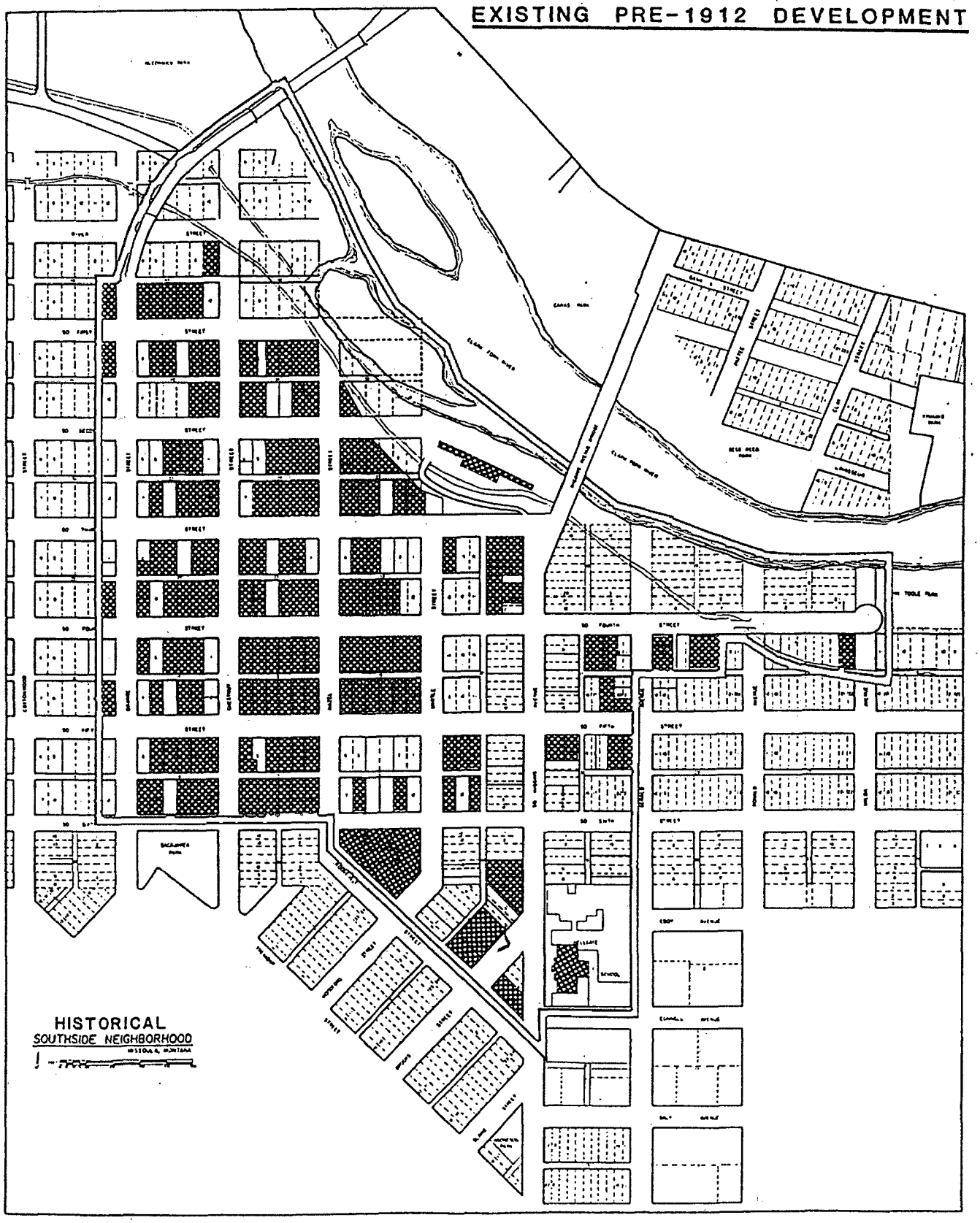

PEDESTRIAN PROMENADE LOOP
SLOW TRAFFIC
NATIVE PLANT GARDEN
OLD CURB LINE
CURRENT EVENTS

Some may have more to do than others. The Historic Southside Neighborhood, as described in Chapter 3, is already well on its way to a pedestrian community, and has an active neighborhood association. In addition to slow streets, a promenade loop connecting neighborhood services to the riverfront trails, perhaps following the historic building tour, would be an addition. That neighborhood is also ripe for some more advanced projects, such as urban food and energy production.

The "Slant Street" neighborhood has a neighborhood association that has expressed concerns about traffic and an interest in traffic calming. One idea being discussed is a landscaped island on Stephens. Other traffic calming and pedestrian projects would be appropriate. The neighborhood lacks a neighborhood store and aesthetically appealing places for a promenade to connect. They need connection, therefore, to the Strip and to the small commercial area at Orange Street and South 6th. A great deal of regenerative work could be done by that neighborhood.

On the other side of the Strip, the area along South Russell has seen a great number of multi-family housing development in the last several years. (In 1964 there were no units; by 1994 there were 437.) Most of these are moderate to low-income. This neighborhood may become the next "slum." It desperately needs connection to the rest of the community: Malfunction Junction and the Strip act as a barrier. No neighborhood association exists. On the other hand, proximity to schools, the park and fairgrounds, the YMCA and shopping centers offer much if the area is developed for pedestrians. In fact, the "undeveloped" status of the area offers a great many opportunities. Another area needing regeneration, of course, is the whole Brooks-South-Russell district.

EXISTING PRE-1912 DEVELOPMENT

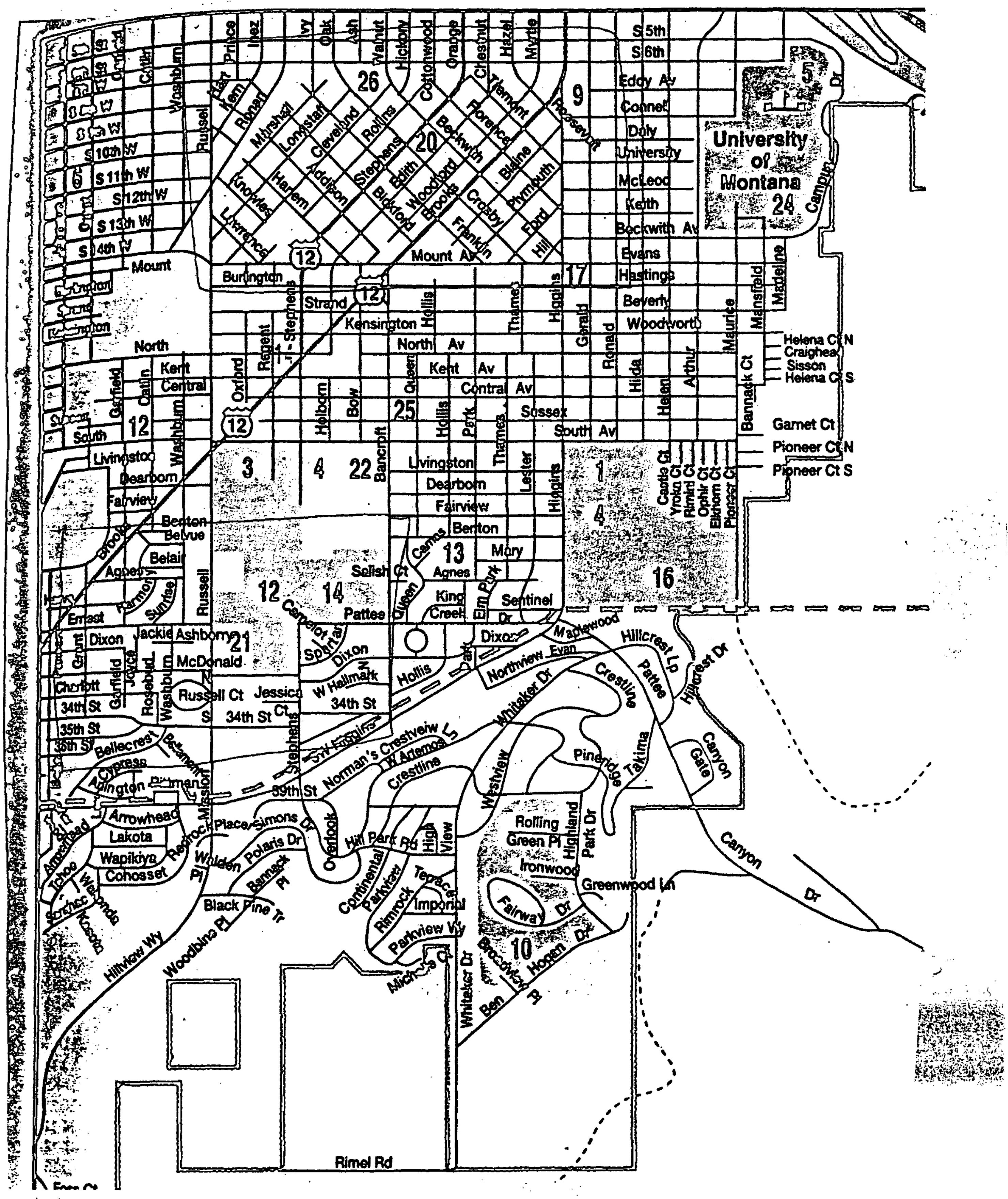


Also, some of the outlying neighborhoods, on west Third or Mullan Road, for instance, should work on ways to combine a semi-rural development pattern, with open space, at some distance from services. The present concentric circle zoning means that the edges of development sprawl into lower density. Creative strategies for not only clustering but creating greenways connecting those nodes with other areas need to be worked out. The list of local neighborhoods that could immediately begin the process of becoming more sustainable could go on.

TWO STORIES: MAGGIE OR WOODY?

The regeneration of a community takes time. Missoula does have a number of institutions in place which lend more sustainability to the community. The kinds of actions I have outlined here will do two vital things. In and of themselves they create positive change and are the kinds of supporting institutions we will want and need in years to come. Also, and perhaps more importantly, working to build these institutions will nurture us, help develop our sense of empowerment and citizenship and steel us for the inevitable struggle with those who profit by the status quo.

Quite clearly, our community, along with society overall, will continue to make steps toward a future that will not be sustainable. It will be critical to continue to make steps in a new direction. Any planetary change will be manifested in communities like ours. Missoula has the rare opportunity to lead the way. We can tell a new story of the future, by beginning to live it and keeping it in mind.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Ivy
Oak
Ash
Walnut
Hickory
Cottonwood
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Florence
Roosevelt
Marshall
Longstaff
Cleveland
Rollins
Beckwith
Blaine
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Thames
Park
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Gerald
Ronald
Hilda
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Pioneer Ct N
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Russell Ct
Jessica Ct
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SW Higgins
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Northview
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Maplewood
Hillcrest Ln
Hillcrest Dr
Whitaker Dr
Crestline
Pattee
Westview
Pineridge
Yakima
Canyon Gate
Canyon Dr
Arrowhead
Lakota
Wapikiya
Cohosset
Tchoe
Redrock Place
Simons Dr
Walden Pl
Polaris Dr
Bannack Pl
Black Pine Tr
Woodbine Pl
Hillview Wy
Overlook
Hill Park Rd
High View
Continental
Parkview
Rimrock
Terrace
Imperial
Parkview Wy
Michael Ct
Rolling Green Pl
Highland Park Dr
Ironwood
Greenwood Ln
Fairway Dr
Hogan Dr
Broadview Pl
Ben
Whitaker Dr
Rimel Rd
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