



# ARCHITECTURE™

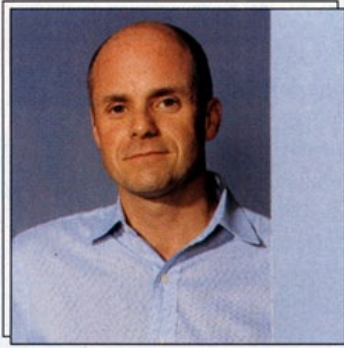
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## land, sea, and sky

BARCELONA REINVENTS ITS WATERFRONT, AGAIN

- ✦ CLARK STEVENS DOESN'T THINK CONSERVATION DEVELOPMENT IS AN OXYMORON
- ✦ BARKOW LEIBINGER ELEVATES AND ENERGIZES THE SUBURBAN OFFICE BLOCK
- ✦ CAN VIDEO GAMES TEACH ARCHITECTURE?





# RIGHT ON THE MONEY

BY C.C. SULLIVAN

To whet your appetite for our main courses this month, I offer this smattering of hors d'oeuvres. Before I do so, however, a bit of humble pie: My apologies to our colleagues in the field of landscape architecture who may have taken umbrage with my broad swat in June's "Planning to Grow" (page 19 of that issue). I didn't mean to single your profession out, but rather to suggest that only those trained as planners should use the moniker. If one isn't qualified to plan more than a site, then that's as far as they should go. Others, such as the amply prepared Clark Stevens of New West Land Company (see page 36), should go as far as the eye can see.

### SURVEY SAYS ...

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### PRESERVING GAUDÍ'S LEGACY

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### DESIGNS ON CHINA

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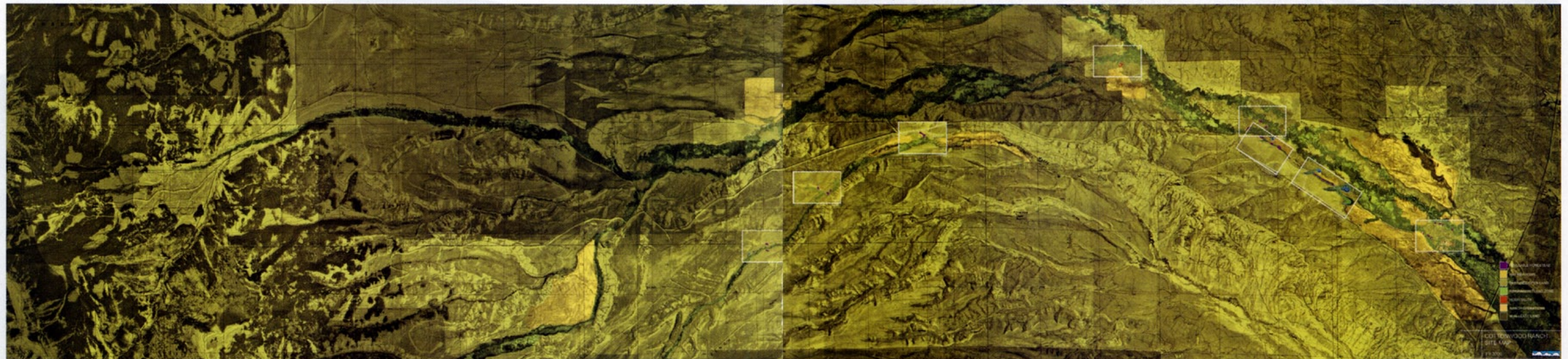
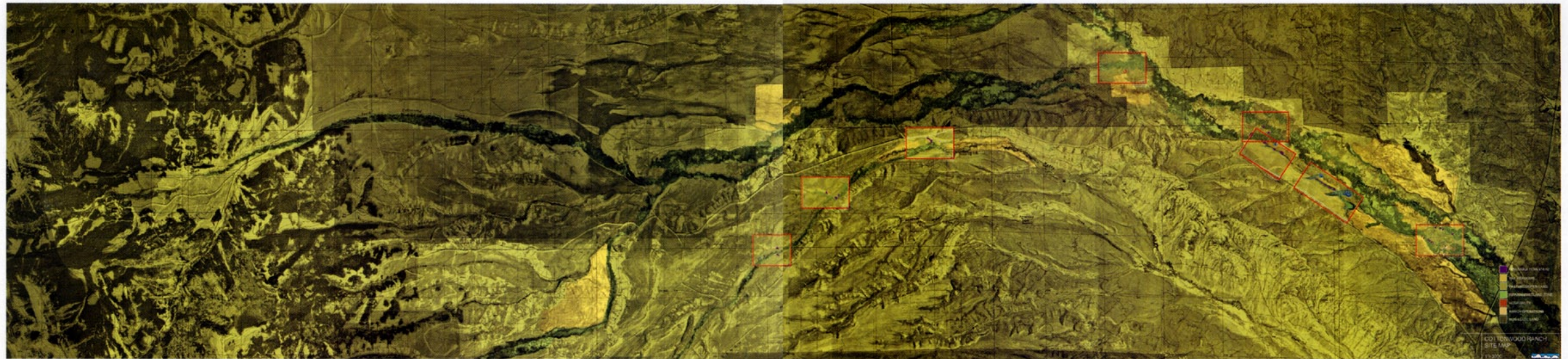
## LAND FALL

It's no secret that the United States is fast losing open and agricultural lands to development and industry. An investigative report on the mining industry and public lands produced by the Environmental Working Group, a watchdog organization in Washington, D.C., includes the following statement: "An estimated 216 million acres of federal land are open for mining under the Mining Law of 1872, or about one out of every 11 acres of land in the entire U.S." In the East, the Massachusetts Audubon Society released a report last year called "Losing Ground: At What Cost?" The study claims that the state lost 40 acres per day to new development between 1985 and 1999. "Thirty-one acres of forest, seven acres of agricultural land, and two acres of open space were developed each day during the period. Nearly nine of every 10 acres lost went to residential development, with 65 percent used for low-density, large-lot construction," reads the report.

Concerned citizens distressed by the unmistakable roar of bulldozers—and the long-term consequences of unmeasured development—are fighting back, including one strong-willed architect named Clark Stevens, a principal of Los Angeles-based RoTo Architects, a founding advisory-board member of Montana Audubon, and the man behind the New West Land Company in Bozeman, Montana. The mission of his unusual firm is to promote a new conservation methodology "that uses place-appropriate development to fund critical conservation purchases and restoration projects to integrate the human and biological communities." His pragmatic approach to conservation development suggests a paradigm shift in land use patterns: a wise compromise. ■







## CONSERVATION DEVELOPMENT IS NOT AN OXYMORON

A WEST COAST ARCHITECT PIONEERS SUSTAINABLE PLANNING IN BIG SKY COUNTRY. BY C.C. SULLIVAN

Reacting to pressures for oil and gas development, the client for Cottonwood Ranches—a 100-square-mile holding in the Green River Valley near Jackson, Wyoming—sought to establish the value of his surface rights in order to protect them from devaluation by random exploration and extraction by the holder of the mineral rights. The solution “repopulates” original homestead sites (indicated in outlined areas) with restored and new dwellings. The plan also identifies possible drilling sites that minimize aesthetic and ecological impact.

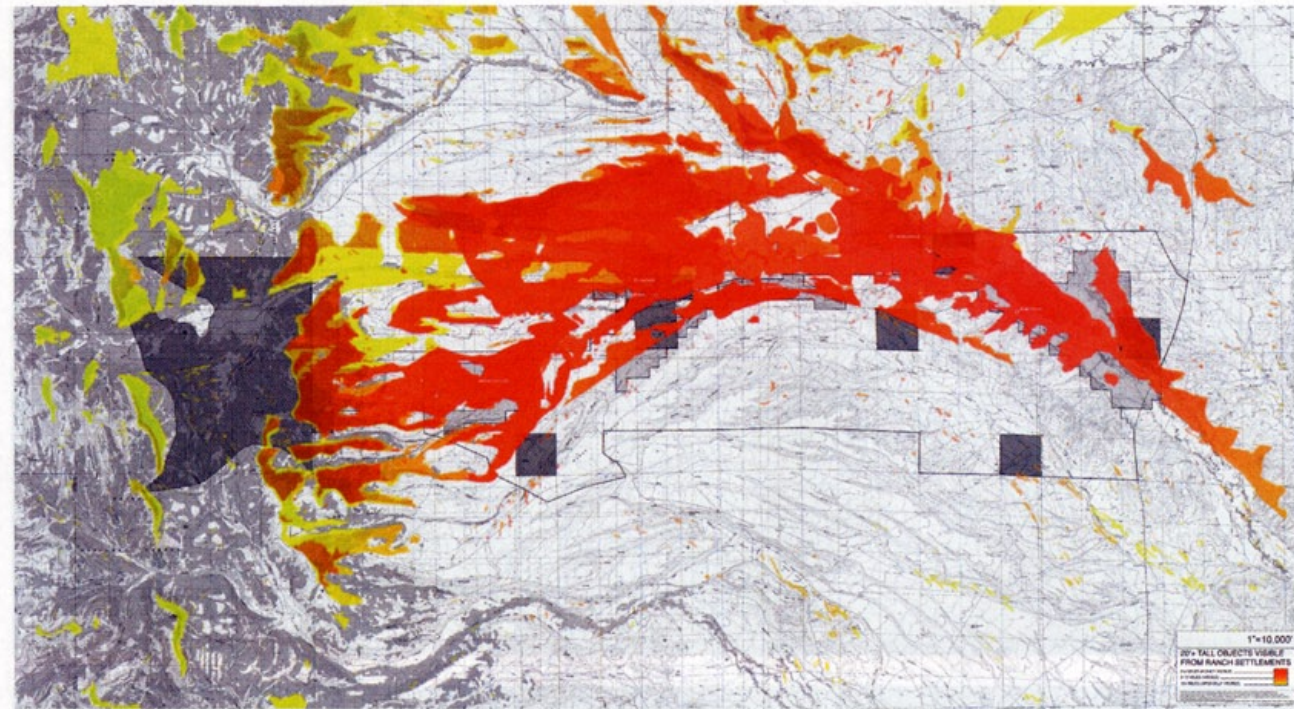
*Clark Stevens is intent on changing the world, one big swath of it at a time. An architect and planner, he's president of New West Land Company (NWLC), a Livingston, Montana-based outgrowth of his work as principal of RoTo Architects, Los Angeles. His innovative practice envisages new forms of land use and ownership for landscapes and habitations of places as large as 100 square miles, mainly in the western United States. Describing his work as “conservation development” and “stewardship consulting,” Stevens is pioneering an approach that combines real estate speculation with ecological and cul-*

*tural preservation of the land, whether rural, agricultural, or natural. And while most of his projects have yet to be realized, he has crafted a novel approach that earns plaudits from various camps, including developers, ranchers, Native Americans, and environmentalists.*

### How did you get started in this unusual work?

It's an outgrowth of our work with Native American communities. In 2000, I founded this second firm specifically to address the growth of rural places and the fragmentation of





At working sessions, the architect and client pore over 16-foot-long drawings of the 25-mile-long Cottonwood Ranch property. The “viewshed” analysis (above) helps determine suitable locations for buildings and oil exploration that preserve scenic views. Architectural elements comprise a dense headquarters combining hospitality, residential, and ranch-operations buildings (below right) and new and existing structures for settlement camps (below left).



habitats and communities that results. Initially, I imagined that the company would be about how not to build, but I’ve had to move up the land-use decision-making chain and use development to finance traditional conservation purchases and to reintegrate humans with the land. Just becoming a NIMBY preservationist might have been easier on the ego, but it wouldn’t stem the tide of loss in habitat and human spirit. Our mission is to design strategies that prevent the degradation and promote the enhancement of storied land.

#### What do you mean by “storied land”?

Land that’s ecologically and culturally significant to the communities of humans, animals, and plants that it sustains. That sustenance is spiritual as well as physical and economic. In places like the greater Yellowstone ecosystem of Montana and Wyoming, an indigenous understanding of place still exists—not in the blood or racial sense of indigenous, but rather in the sense of engagement and intimacy with place.

#### Why did you structure this as a separate company?

It had to be a for-profit, independent practice and research



arm, because our architectural portfolio was only marginally suited to convincing a rancher that we had something to offer. Often our client wants to do something that hasn’t been done before, so it can’t be about, “How many urban-springs restorations have you done?” It’s kind of a build-it-and-they-will-come thing. And there is a very significant market for this.

#### What’s your practice model?

It’s basically a fee-for-services approach, and there’s a process template with markers along the way. While the purely utilitarian model of evaluating land-use choices is limited and inappropriate, our approach seeks returns that are financially competitive with status quo development, to attract the average rural developer or landowner. The process is initiated by a guardian morality, but it’s guided to completion by a commercial ethic.

In *Systems of Survival*, Jane Jacobs points out the dangers of this combination—the “monstrous hybrids” that can result—and that’s one reason I haven’t taken an equity position in a project. Once your fee depends entirely on a speculative venture with a long lead time, there’s a temptation to

## CONSULTING FOR RURAL CONSERVATION—AND GROWTH

Inspired by the area’s rugged beauty—and later, perhaps, by the 1992 movie *A River Runs Through It*—the recreational land boom that began around Jackson, Wyoming, in the early 1980s has blossomed into a speculative real estate frenzy that persists today. Coupled with new pressures from agricultural and mining interests, the wide-scale sprawl of resorts and gated communities has encroached severely on the very natural attractions that spurred interest in Montana and Wyoming in the first place, prompting a national debate.

One side-effect of the Big Sky boom has been the birth of a novel approach to economic growth and land-use planning that focuses on environmental and conservation protections. To serve such emerging niches, an entirely new consultant class has materialized as well, and many architects and developers find themselves in alliance (and sometimes sharing fees) with a host of experts, including:

- ▣ **Conservation developers.** These self-described entrepreneurs include nationally regarded New Urbanists and local firms alike. Their opportunities are large in scale and long in timeframe: up to five years, versus the customary (and financing-friendly) one-to-two-year development windows.
- ▣ **Land-use scientists.** Working in arcane fields that mix science and conservation, these consultants bring knowledge of the living earth to project plans. Key specialties include fluvial hydrology, resource ecology, and range biology, as well as wetlands restoration, as with Bozeman, Montana’s Cindy Hoschouer.
- ▣ **Sustainable real estate brokers.** Dedicated to promoting (and earning commissions on) low-environmental-impact communities, these dealmakers spur the demand side of the economic equation. Many of them, such as Helena, Montana-based American Conservation Real Estate, work with land trusts and conservation easements, tax incentives introduced in the 1970s.
- ▣ **Rural market researchers.** With longer timelines, broader horizons, and less-studied variables, conservation development calls for an unusual type of market research. Pario Research of Cardiff, California, for example, is known for this kind of analytical work.

Not surprisingly, specialized legal advice is also a crucial part of this growing building segment. With ever-changing environmental regulations and a complex history of land ownership starting with the 1862 *Homestead Act*—and, later, Theodore Roosevelt’s separation of surface development rights from subsurface mineral rights—the Western states present a dense web of laws enlacing both environmental and real estate activities. **C.C. Sullivan**

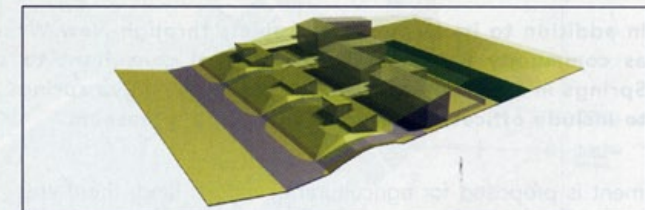
make it happen whether or not it passes Aldo Leopold’s litmus test for conservation. But I might speculate with capital as well as with ideas in the future.

#### How did Leopold describe conservation?

I use one of his many definitions: “When land does well for its owner, and the owner does well by his land; when both end up better by reason of their partnership, we have conservation. When one or the other grows poorer, we do not.” To my mind, that suggests that the land—and its owner—must be left in a better condition than you found them.

#### Can you give an example of how this works in practice?

One of the characteristics of conservation development that distinguishes it from its conventional counterpart is that you do your “landscaping” first. In a recreational landscape, beauty is everything. Having more willows painting the meandering 10-mile view of your creek bottoms equals



Clark Stevens hopes that high-density and communal living concepts developed for the ranch projects will help alleviate sprawl on ecologically fragile land. The profiles of berm dwellings within a wetlands and grassland preserve, for example, echo its topography (top).

greater value for the people who are buying the right to see and enjoy them.

The first stage of Cottonwood Ranches, in Daniel, Wyoming [pages 36-38], for instance, has nothing to do with construction. It’s two years of stabilizing the ranch operation by transforming from the romantic but financially unsustainable cow-calf approach to a yearling operation, which requires less winter feeding, therefore less hay—and therefore less irrigation. This allows more in-stream flows, making the streams more drought tolerant and, along with the less-grazed banks, lowering water temperatures, decreasing sedimentation, and increasing scour of the spawning beds. This provides food and building material for the beavers that co-evolved with cutthroat trout by creating deep, shaded pools that are ice-proof. All of this nurtures valuable trout breeding along with upland bird and ungulate game species hidden by the color-changing riparian willow and upland sage complex.

Still, the term “conservation development” sounds like an oxymoron. It’s a tough notion to swallow; any time develop-





In addition to its large-scale projects through New West Land Company, sister company RoTo Architects serves as community liaison and architectural consultant to several wetlands-restoration projects, including Sacred Springs in Los Angeles. Next to the Kuruvungva spring, as it is called, an existing classroom building is adapted to include offices, a cultural center, and a museum.

ment is proposed for agricultural or natural land, there are objections. But growth dynamics and real estate pressures can be tracked. And by doing research, learning the intentions of local infrastructure planners, and studying estate planning by large landowners, we can certainly predict what land is likely to be developed and over what time frame. And once you imagine the inevitable results—and describe them to the community—then development that funds cultural and ecological preservation starts to make sense.

But it's not enough to say, "Here's what the zoning allows, and here's our nifty plan with more open space." That's a common subterfuge that doesn't wash on closer inspection. All the land we've worked on has been threatened by immediate legal fragmentation and sale if we couldn't find an economically viable alternative, generally because the owners couldn't afford to maintain it as open space, due to death, illness, or forced buy-out of a partner that required others to raise cash.

In the 1980s, Lane Coulston showed me that "conservation real estate" didn't have to be an oxymoron. His company, American Conservation Real Estate, was the first to creatively unbundle the collection of rights that come with deeded sales, so that agricultural ownership and land-management practices could remain intact even as newcomers built second homes and bought access rights to more land than they could hope to understand in their lifetimes.

#### Do you join forces with environmental groups?

I'm currently collaborating with nonprofit conservationists, but in general they're not dealing effectively with habitat connectivity or the long-term sustainability of rural economies, although most acknowledge that the two are inextricably linked. Recent attempts by well-known organizations to use

development as a tool for conservation were met with largely undeserved negative coverage in the press. But they're beginning to learn that by ignoring rural economies when making purchases intended to preserve diversity, they're creating what The Nature Conservancy has called "islands of extinction": You buy a critical habitat patch only to see status-quo rural land-use practices devour its connectivity and compromise its resiliency.

The nonprofit's role could be to set up the relationships with the landowners, design the 3-D criteria and "performance specs," set a development timetable, and solicit proposals from qualified development teams. In addition to obtaining open-space preservation and restoration as a cost of the development, the nonprofit could build in an appropriate pre-development fee in the pro forma to offset their time and risk.

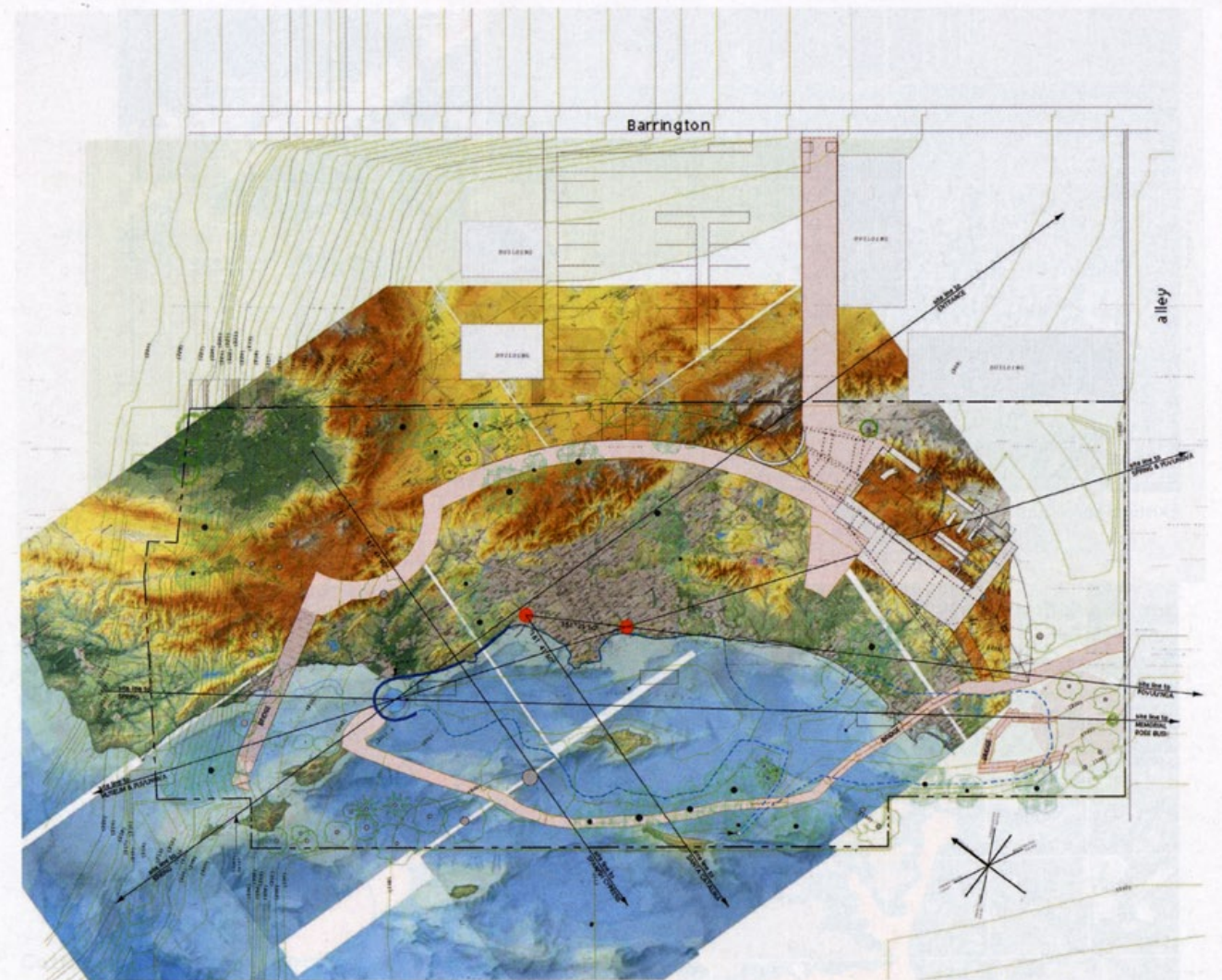
#### And what about competitors? Do you have any enemies?

Our enemies remain the marketers and developers who have the audacity to name their developments after places or cultures they've recently obliterated, such as Broken Arrow Ranch, Bella Vista, and Pleasant Valley Farms. The next wave of this ilk are those who greenwash the same old product and adopt the moniker "conservation development" for its public-relations value. Dishonest appropriation of the term will jade public agencies and buyers.

Another big challenge is that, if you use development as an instrument of conservation, first of all somebody's got to request your involvement, and then investment capital has to be brought in. And you have to be in early—you're working on a five-year business plan, not a one-to-two-year plan.

#### What are you working on now?

Corner Table [pages 42-43], in Billings, Montana, is most promising: 200 acres of development of an integrated and



The site plan for Sacred Springs features an enlarged pond, indigenous plantings, and "a walking journey across this storied landscape," says architect Clark Stevens, to be used by native Gabrieleno and Tongva people for ceremonial and educational purposes. The artesian spring flows at 22 gallons per minute near the intersection of Santa Monica Boulevard and Interstate 405.

diverse human/natural habitat funds the purchase of over 2,000 acres; the idea is to create a distinct, beautiful urban-growth boundary in the form of an arcing, cottonwood-lined railroad grade and trestle. The work will prevent the development of 6,000 acres of agricultural and natural land—that's more than 8,000 acres preserved and enhanced in what would otherwise be an inevitable sprawl region. Another example is Cottonwood Ranches, where my client is shifting from traditional cattle grazing to niche agriculture supported by recreational uses and ownerships. The plan integrates working ranch families with concentrations of mixed-scale dwellings and hospitality functions, such as shared guest quarters and a collective dining table, as at traditional camps.

If one could sustain only a few ranches as large as Cottonwood, at 100 square miles, the impact on the landscape could be enormous. So many ranch developments are basically golf-course communities where the links have been replaced by trout streams, and pretend cowboys operate the hooved fairway-groomers.

#### Is NWLC the only firm doing this kind of work?

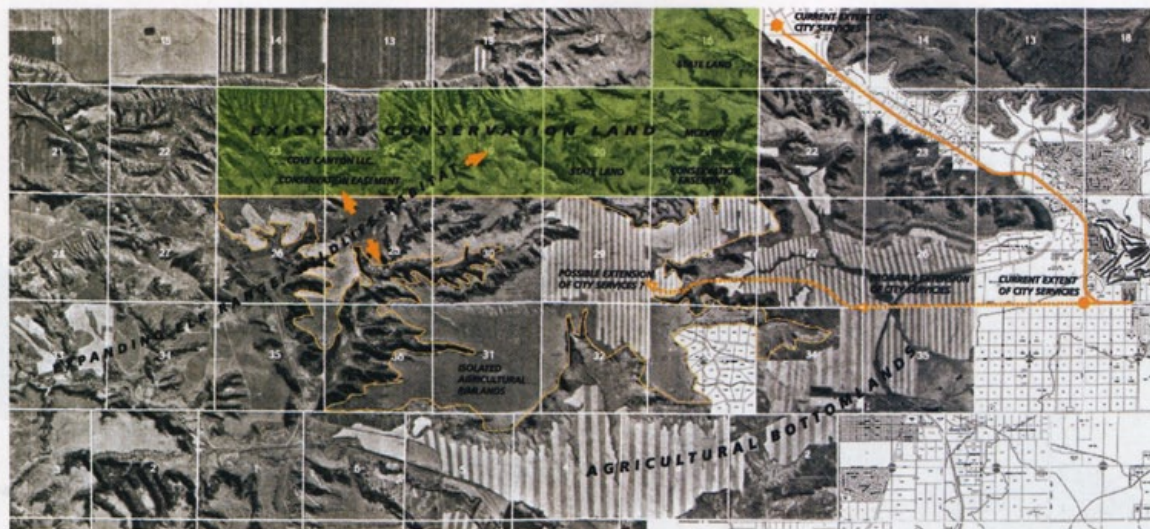
At least one large planning and landscape-architecture firm is considering entering the market, and our work has influenced such regional practitioners as Erik Nelson of ThinkTank Design in Bozeman, Montana. And I think that Jackson Meadow, in Marine on St. Croix, Minnesota, is a great site plan and a nice attempt at codifying a vernacular without getting an inauthentic outcome. And the Bauhaus of riparian restoration was the Ruby River project at Snowcrest Ranch in Madison County, Montana, in the late 1980s.

#### Who are your clients?

They all share an interest in the ecological and social health of the land they steward, as well as a deep dissatisfaction with monocultures of any kind—ecological, agricultural, social, or of thought. All have been natural teachers and eager learners. And all of them have a deep respect for private choice on private land, tempered by a healthy disdain for those who ignore their public-serving responsibilities to that land or community.

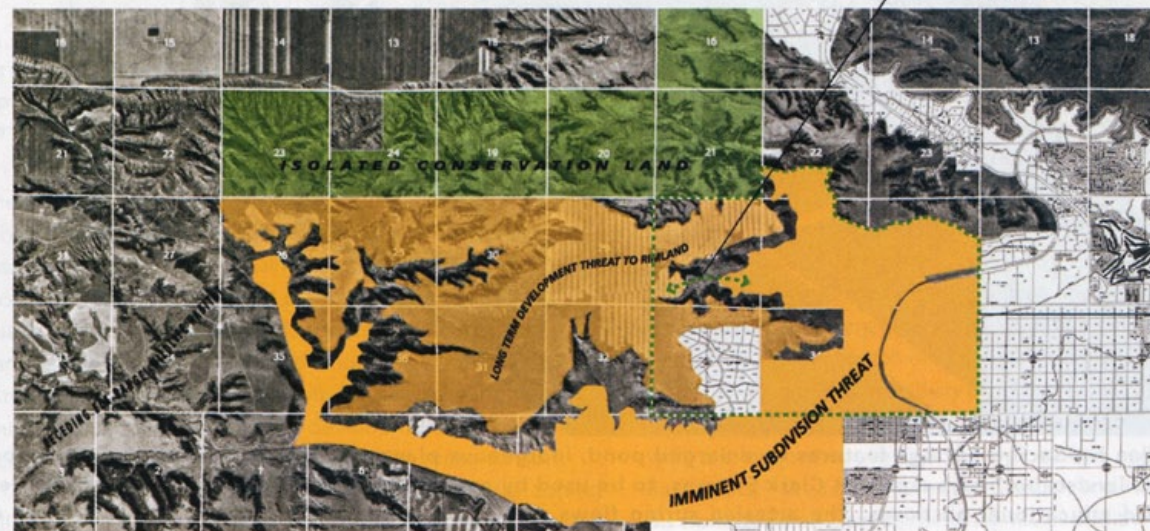
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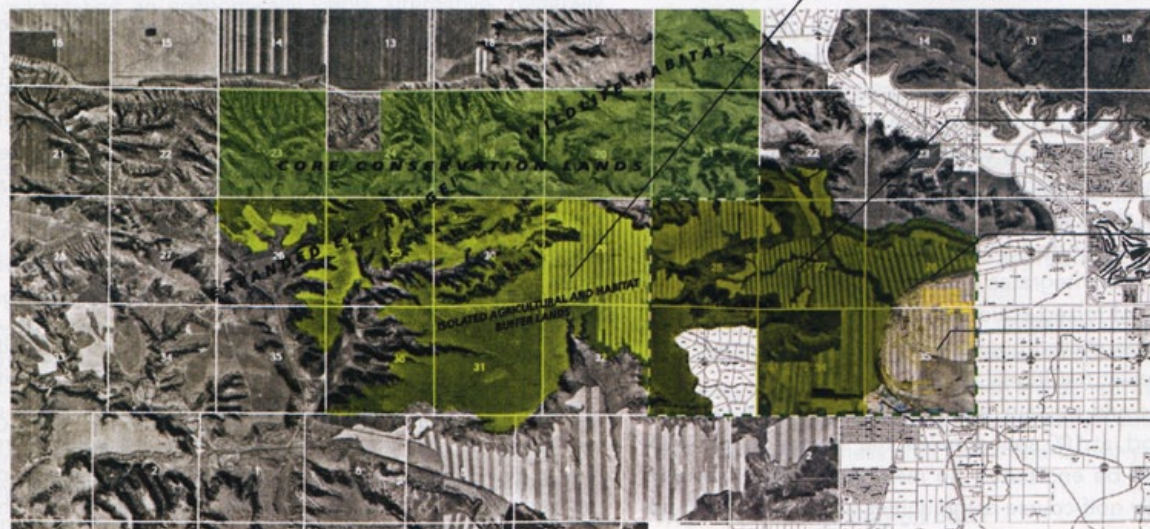


Existing parcelization and subdivisions

**CRITICAL INFRASTRUCTURE PATH**  
Once easily developed bottomland is annexed by the city of Billings, extension of infrastructure to ranches becomes a threat.



Probable sprawl scenario



Conservation-development proposal



For a 4-square-mile site at the tablelands west of Billings, Montana, the architect partnered with the landowner to form Corner Table and proposed clustered horse properties that are maintained in common ownership. An existing elevated railroad track divides the property's public open space and preserve lands from a proposed high-density, mixed-use community. Three studies (opposite, top to bottom) compare the existing subdivision map, a probable sprawl scenario, and the conservation-development proposal. Elaborated upon with other studies and maps (above), the Corner Table project will eventually protect some 8,000 acres by profitably and sustainably developing only 300.

#### Cottonwood Ranches, Daniel, Wyoming

**project type:** ranch-management plan including strategic conservation development on working cattle ranch with conference and "camp" hospitality facilities and residential development at restored homestead sites **client:** Botur Enterprise **architect and planner:** New West Land Company, Livingston, Montana, and Topanga, California—Clark Stevens (president) **consultants:** RoTo Architects, Los Angeles—Devin McConkey, John Osborne (architecture and planning); Earth Systems—Scott Gillilan, Martha Kaufmann (hydrology); EQA Landmark Communities—Brett Malky (market research and pro forma) **area:** 100 square miles (12,000 acres deeded)

#### Sacred Springs, Los Angeles, California

**project type:** relocation and adaptive reuse of 1970s-era temporary classroom facility as a cultural center and classroom, with restoration of spring and spring pool as teaching landscape and for on-site water reclamation and irrigation **client:** University High School, Los Angeles—Elois McGhee, principal; Sacred Springs Task Force **architect and conservation planner:** RoTo Architects, Los Angeles—Michael Rotondi, Clark Stevens (principals); Bo Sundius, Javier Del Risco, Rodrigo Carazo, Jack Nyman (project team) **hydrology consultant:** Tetrattech **area:** 1 acre

#### Corner Table, Billings, Montana

**project type:** strategic conservation development for new mixed-use community **client:** Larry and Ankie McEvoy **architect and planner:** New West Land Company, Livingston, Montana, and Topanga, California—Clark Stevens (president) **consultants:** RoTo Architects, Los Angeles—John Osborne, Marianna Athanadasou, Fabian Villamichel (architecture and planning); American Conservation Real Estate (real estate consulting and marketing); EQA Landmark Communities (market research and pro forma) **development area:** 200 acres wetlands/agricultural **restoration area:** 1,980 acres **protected area:** 10,000 acres