It's the spring of 2002 in Phoenix and fiber artist Judy Bales is making her umpteenth drive back up the freeway past the site where the Maryland Avenue bike/pedestrian bridge will sit. She will exit about a half a mile up the road, change directions, and drive back, repeating this figure-eight loop on I-17 over and over for the next three days to get a feel for everything the site encompasses. This will be just one of many challenges for an artist who admits to "keeping my work constantly close to me in my studio or at times pinned up on my bedroom wall where I can see it first thing in the morning and last thing at night."

Over the past 20 years, Judy Bales's work has grown from sculptures that comfortably sit inside a small gallery space to public works projects like this that spans I-17, helping connect two communities separated for years. There's also the 35th Avenue and Salt River Bridge about eight miles south and three other pedestrian/bike overpasses along the trails system encircling her hometown in Fairfield, Iowa.

When I ask Bales how she arrived at this place in her career, she explains that it started with her "frustration with gallery elitism, knowing I couldn't afford my own work and that it remained inaccessible to most people."

As Bales acquired more commissions, the scale of her installations

Bridge Work: Judy Bales Designs

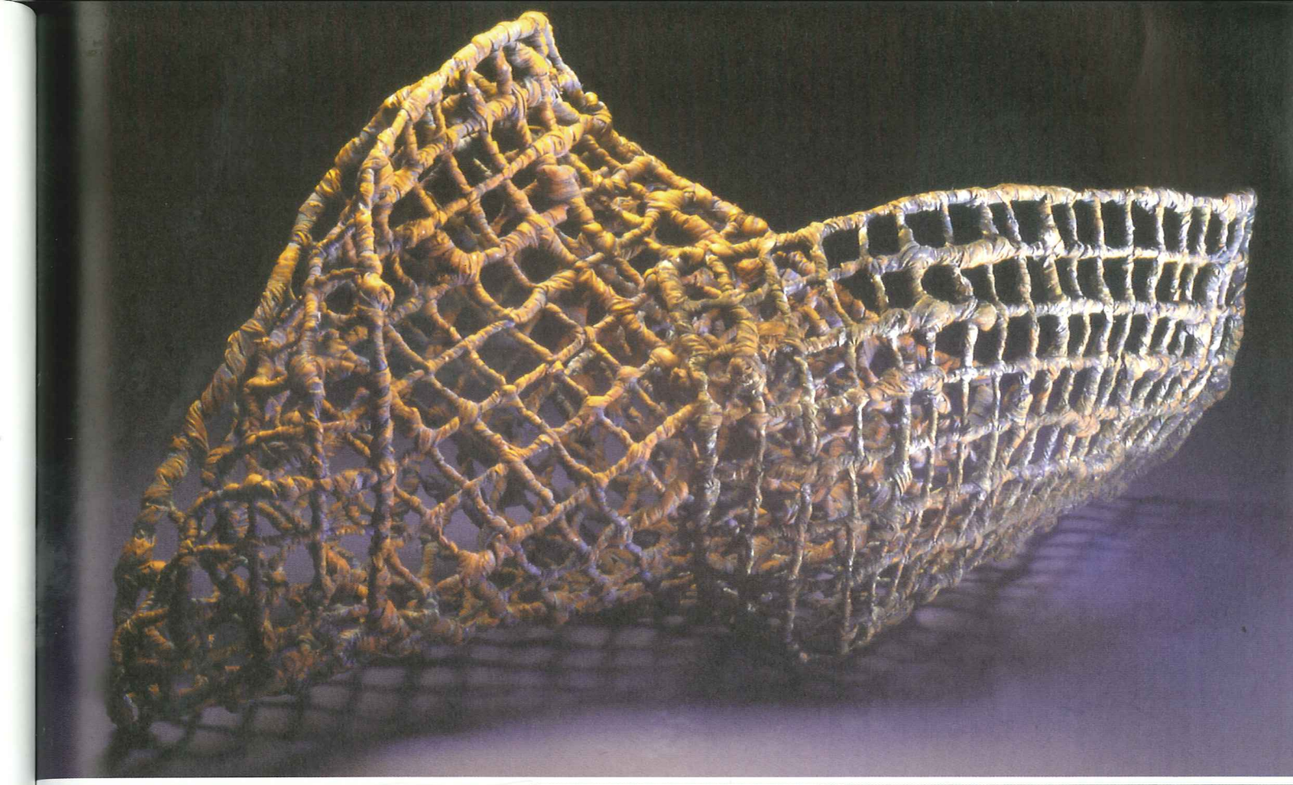
grew 100 times along with a potential for growing compensation. By 2000, she had applied for public works projects and was selected to design a cage for a pedestrian/bicycle corridor for the Maryland Avenue Bridge project in Phoenix, Arizona. During the next few years, the Jefferson County Trails Council in Iowa came to Bales with plans for three bike/pedestrian overpasses along the city's "rails to trails" greenbelt project.

Bales's most obvious challenge in Arizona began with the site element and consideration of nearby buildings and land contours on a schedule of only two or three on-site visits a year during the design phase. "Bridge enhancements have to work both with a fast view from a car approaching at high speeds from a half-mile away and a slow view on foot allowing closer inspection. Multiple vantage points, both approaching and through the structure, have to work together without detracting one from the other." Bales developed her concept knowing that any changes would be discouraged on a $4.3M public transportation project.

The effect of topography, climate, and season, which are absent in a gallery space, inform and provide contrast to bridge enhancements in both states as Bales explores the interaction of sky, wind, weather, and foliage with her designs.

In Arizona, she transplanted soft greens and yellows from the desert shade trees at each entrance onto the bridge with contrasting yellow steel bands; the bands weave in and out of the green trusses to add a sense of movement to the bridge's stability. Bales comments that this is also "an aspect of my work with fiber that I'm translating onto bridges, especially the integration of opposites, industrial and organic, stable and fluid."

by Mo Ellis



Judy Bales *Nestling Rivers* Fabric wrapped on manipulated wire fencing, paint, 60" x 36" x 48", 2000. Photo: James Meyer.

Judy Bales *Embracing Hills* Fabric wrapped on manipulated wire fencing, paint, 19" x 37" x 15", 2001. Photo: Jerry Anthony.

JUDY BALES *Maryland Avenue Bicycle and Pedestrian Bridge.* Installation process in 2005. Steel, concrete, metal mesh. Artist collaboration with engineer Jerry Cannon for design of superstructure, ramps, and landscaping for steel truss bridge, 25' x 250' x 10', 2005. Photo: Richard Strange.
RIGHT: JUDY BALES *Maryland Avenue Bicycle and Pedestrian Bridge.* Interior view.

JUDY BALES *Maryland Avenue Bicycle and Pedestrian Bridge.* Aerial view. Photo: Richard Strange.

Bridge Work: **Judy Bales** Designs New Connections

The Cedar Creek Bridge project in Iowa came with an existing bridge, which Judy used as the ultimate found object. "I like the philosophy of working with salvage" she points out, showing me examples of found objects like hog panels (a plentiful, very rigid farm fencing) wrapped with pliable cloth or dryer hose material in her studio work. "That's what I'm doing with bridges on a different scale with more permanent materials."

The Cedar Creek Bridge enhancements used Cor-Ten steel that self-oxidizes, producing a richly colored protective coat of rust over time. Their shapes mirror the dense deciduous tree trunks anchored into the dramatic slopes on either side of the bridge, creating an unintended illusion that these rusted metal trunks are sprouting treetops thick with foliage. These additions to the structure hang on repeating chain link supports to soften and frame the view hikers see through the fencing with its dramatic 100-foot drop down to Cedar Creek, which feeds the adjacent wetlands area.

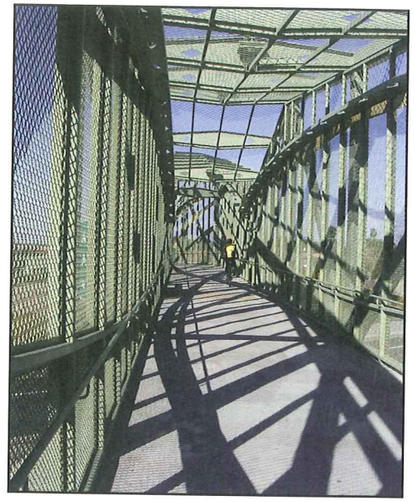
Bales also designed a BNSF (Burlington Northern Santa Fe) railway overpass for the Iowa trail system to connect a city park to nearby Walton Lake and Golf Course. This design features a steel cage with enhancements inspired by local barn structures and additional tile work installed as a tribute to the rural history of the community.

"In bridge work, teamwork is required—you're not a solo artist," Bales said.

In Phoenix, Bales's most obvious challenge began with the site element. The second test was the collaborative aspect that, from the inception to completion of the project, involved her with structural engineers, city managers, a project manager on the city's Office of Arts and Culture, and eventually contractors and fabricators.

Bales describes this relationship as a bit like an "arranged marriage that started out rocky but with everyone helping me direct my aesthetic as it related to structural engineering, eventually bringing out the intellectual side of my creative process. I usually work more intuitively. My art education pulled me out of realism into abstract art (and its freedom) but this type of collaboration has pulled me back to center."

"I used to feel the ultimate art was utilitarian", she says, "but I couldn't do it—things would just fly off into the abstract realm. And after 30 years creating art as an abstract visceral experience these public works have grounded me in it, adding a sense of purpose and contribution to society through work that is also utilitarian."



With her creative impulses butting up against the constraints found working on this scale, many of Bales's creative solutions emerged with the advice of engineers who wanted the project to succeed as much as she did. Arizona engineer Jerry Cannon led her to important books—that culminated in several years of studying bridges and deepened her understanding of what structural engineers deal with.

Bales admits she "couldn't have managed alone, and these breakthroughs led to works that are the most exciting and liberating things I've done." Alongside this exhilaration is the satisfaction of having millions of people viewing and using these structures. "My work is out of the gallery and a part of life."

In time, the whole project was meticulously picked apart with considerations of exit signage (the bridge height was increased to compensate for the visual impact of its placement on the structure), public safety concerns, and the inevitability of vandalism. Eventually an inspired community volunteer, Marion Grock, solved the last problem for the city with his weekly bridge patrol armed with paint can and brush to cover any new graffiti.

The Phoenix project, which started in 2000, finished in Summer 2006. Jerry Cannon, with his 40 years of experience in design and construction, put the whole project into perspective for Bales with his offhand comment as parts of the bridge were finally lifted off trucks into place by crane: "Tomorrow we'll see if we really got what we think we got."

When I asked Bales how bridge work has informed her studio work, she confessed, "I still prefer open design incorporating metal and fiber with an ethereal, light, airy quality, including some stable elements. The scale of my work is larger now and I'm more concerned with where the work sits in a gallery when I install pieces. I'm more aware of the

Bridge Work:
Judy Bales Designs New Connections

interior space of the installation. The same work might change from show to show as each site informs and becomes part of the piece. It's no longer a set piece."

Bales also explains that bridge work has affected her choice of materials. "I always like working in metals, but I find myself working with chain link, which I hadn't done before."

The daily routine of cloistering herself in the studio all day with her work has also been transformed. Now there is an alternation between design and studio time and she's also learning a CAD program.

When I asked Bales what it was about bridges that so fascinated her, she freely admitted that earlier "I hadn't given them much thought." But several years before she started designing them, she coincidentally "used a bookstore gift certificate to pick out a book on bridges [and was] drawn in by the expanse, ingenuity, and history with no notion of actually building or collaborating on any projects."

As an aside, Bales offers: "If I were giving advice to younger artists, it would be: don't categorize yourself. If a door opens that interests you, go in that direction. You never know where your creativity will take you."

When I question Bales about where her work might take her in terms of new projects she offers me her vision for the future, "I think we need a completely new transportation model for this century—something new, similar to our highway system, but involving mass transit while addressing green issues." The Maryland Avenue Bridge project has already helped green Phoenix by creating transportation options, including an alternate bicycle route and access to a planned park-and-ride lot. Bales feels there is "more awareness now of planning a new infrastructure, with thought about design elements that transcend simple structural integrity."

"Personally," she says, "I'm not so much interested in putting art on bridges, as in creating art integrated into the design, creating a seamless melding of aesthetic and form. I'd like to be a part of projects where, contrary to conventional wisdom, function would follow form—a collaboration where the artist and engineer take physical laws and control them to make these forces work for their aesthetic sense."

Back in Bales's studio, the work is getting larger as she manages a nice balance of hands-on work while mounting several solo shows a year and periodically consulting with Cannon TranSystems engineering firm in Arizona. Reflecting on her work, she acknowledges that, "the past eight to nine years have been a period of intense, self-directed study of bridges, their aesthetics, and all aspects of public art, creating a wealth of new knowledge and skills I'm applying to new installations and projects. While my work has always been about the integration of opposites, more and more I find this technical/practical angle integrating with the experimental/expressive aspects of my work. There's a great sense of freedom knowing I can work either way."

—Mo Ellis is an artist and free-lance writer living in Fairfield, Iowa. When she's not writing about artists in her community, she focuses on environmental and food safety issues.

JUDY BALES ***Glow Sticks*** Detail. Welded wire, aluminum. Agricultural panels cut, manipulated, wrapped with aluminum ribbon, 15' x 32' x 3', 2008. Installation at ICON Gallery, Fairfield, Iowa.

RIGHT BOTTOM: JUDY BALES ***BNSF Trail Bridge*** Steel, chain link, ceramic. Design for bridge's protective covering, community project for design of tiles to enhance interior concrete curb, 15' x 250' x 10', 2002-2004. Photo: Richard Strange.

JUDY BALES ***Cedar View Trail Bridge*** Self-weathering steel. Design for steel elements retrofitted to existing bridge, laser-cut art elements installed by community volunteers. Each element 5.5' high, bridge span 385'.

BELOW:
JUDY BALES ***Cedar View Trail Bridge.*** Aerial view.