For 50 years, Isamu Noguchi and Buckminster Fuller shared dreams of a world improved by visionary technology, as seen in a recent exhibition.

**BY NANCY PRINCENTHAL**

Buckminster Fuller and Isamu Noguchi met in 1929 at a downtown New York tavern called Romany Marie's. Fuller, a loyal patron, helped Marie design her Minetta Street establishment, covering the walls with aluminum paint to boost its sense of light; he also designed some aluminum furniture. By way of thanks, Marie offered the would-be world reformer and Harvard dropout a free daily meal. She also provided ready access to the establishment's lively clientele, whom Fuller addressed with informal talks about his design schemes. Noguchi, roughly 10 years Fuller's junior and just back from a Paris apprenticeship to Brancusi (who had put Noguchi up to visiting his favorite New York bar), must have been rapt. Within months, the young sculptor had painted his studio silver, "so that one was almost blinded by the lack of shadows," he wrote. A chrome-plated bronze portrait head of a singularly heroic, brilliantly gleaming Fuller quickly followed, saluting the beginning of a friendship that lasted more than 50 years.

That 1929 bust was included in a fascinating exhibition called "Best of Friends: Buckminster Fuller and Isamu Noguchi," organized for the Noguchi Museum by its director emeritus, the architect Shoji Sadao, who was a student of Fuller in the '30s and subsequently a business partner of both men. The show's explanatory material was rich with anecdote, perhaps inevitably, since the protagonists were restless, heedless, wildly inventive, long-lived and, in Fuller's case at least, endowed with a prodigious gift of gab. (Fuller's spellbinding lectures, which generally went from early evening to the small hours of the morning, are legend, and he kept them up well into his 80s.) But the roughly three dozen objects on view, including sculptures, models, photographs, drawings, films and sundry documentation, were eloquent too. None speaks more forcefully for the spirit of their early relationship than The Glad Day (1930), a small bronze sculpture by Noguchi of a man with feet planted wide apart and arms flung even wider, his out-thrust chest fairly bursting. This proud figure appeared on a cover of Shelter, a magazine Fuller published for a couple of years in the early '30s. So did another Noguchi sculpture, a sleek winged victory of 1932 named (by Fuller) Miss Expanding Universe.

Fuller's own most powerful expression of faith in the link between social and scientific progress was, arguably, the modular "4-D" residence—a machine dubbed it the Dymaxion House—which Fuller envisioned as "a machine for the comfortable conduct of family life under shelter." A recent reconstruction of a 1929 model showed its six pie-shaped, glass-walled rooms suspended from a metal-spired central mast as if from the pier of a bridge—or a tree, in Fuller's preferred analogy. With its living quarters hovering a full story above the ground so cars could park underneath—the effect was of a rocket ready for lift-off—the Dymaxion House was more Buck Rogers than Bauhaus. Writing in Shelter, Fuller noted its "likeness to the [Japanese] pagodas which, primitive though they are, and useless, nevertheless by their central radiating interlocking umbrella-wise roofs gain strength to be the stoutest buildings in the east." Notwithstanding Noguchi's awkward apologies, the point is clear: progressive thinkers need not be constrained by European ideas of universal and eternal design criteria. Fuller, in fact, provided a mechanism for the Dymaxion House's rooms to be replaced as they became outdated. But, not for the last time, his design's novelty preempted obsolescence: while even-

Exhibition view, showing (from right) reconstruction of 1929 model of Fuller's Dymaxion House; Noguchi's The Glad Day, 1930; reconstruction of a section of Noguchi's Challenger Memorial (through doorway), 1965-67; photo of Noguchi's Mexico City mural, 1936; and Noguchi's Miss Expanding Universe (far left), 1932; at the Noguchi Museum.
Noguchi and Fuller were closest in the depths of the Depression, living in diminished circumstances and thinking in terms scaled to the universe—to microbiology and physics, the landscape and the stars.

To Be Seen from Mars (1947), dreamt up in the chill of an imminent, nuclear-armed Cold War, envisioned a face in the sand with a mile-long nose, and was meant to survive the apocalypse.

But by the late '40s, the friendship between Noguchi and Fuller had also cooled. The war years were, inevitably, divisive. (Born in California in 1904 to an American mother and a Japanese father, Noguchi went to Japan as a small child, but was sent back to the States for his education. He returned to Japan in 1930 and again after the war, eventually setting up part-time studios and residences there. In 1942, he voluntarily entered an Arizona detention camp for West Coast Japanese-Americans; it took him several months to talk his way out.) During the postwar years, when to Americans "made in Japan" meant cheap and flimsy, Noguchi immersed himself in the art of traditional gardens. His first built public garden, the UNESCO gardens in Paris (1956-58), were conceived along those lines. Noguchi's most popular furniture designs—the biomorphic wooden-legged glass-topped coffee table and the paper Akari lamps, both still in production—do not reflect the influence of Fuller.

Noguchi and Fuller were built as prototypes, the house was never put into mass production.

Though less practical even than the Dymaxion House, Fuller's 1933 Dymaxion Car advanced a little closer to production. Three examples were built and put on the road, one of which fell victim to a rear-end collision that unfortunately killed the driver; in short order, the project died as well. But Fuller's dream of an aerodynamic, flight-capable three-wheeled car had already captured the popular imagination (and, just as important, the support of celebrities—conductor Leopold Stokowski was an early owner). Noguchi helped when the public's interest in an early plastic model, now lost, a photo of it shows an impossibly refined design, all swell curves and suave, tapering details of conceptual priority. But Fuller made some very elegant demonstration objects himself, three of which, dating between 1978 and 1980, were on view. Looking a little like fancy executive toys, they involve shiny rods threaded with wires that hold them fixed in hypothetically complex geometric patterns.

Also on view were a couple of sculptures by Noguchi that apply the same principle. Monument to Heroes (1949) seems at first a simple-to-classify Surrealist assemblage. Its conjunctions of found and hand-worked forms, floating in and out of a hollow, black-painted cardboard cylinder, evoke the dream theaters of early Giacometti. But Sadao contends, persuasively, that it is also an exercise in Fullerite tenuity, its evocative hovering bone, wooden propeller and other, less identifiable wooden elements all kept in place midair by wires strewn from one to the next. (Sadao also helps with the iconography of this work, which he says pertains to fallen airmen of World War II.) In a more explicit homage, Noguchi's curiously skimpy Buck (1948) honors Fuller, and tenuity, with a wasp-waisted bit of carved wood caught in a wiry net that has, alas, grown slack with age.

The date of this second portrait is telling. Noguchi and Fuller had been closest in the depths of the Depression, living in diminished circumstances (during this time they shared various sublets and squats) and thinking big, even colossal. Fuller, a great-nephew of a leading Transcendentalist (Dial magazine founder Margaret Fuller), and Noguchi, who lodged as a child with a Swedish minister and was urged to read Blake and Emerson, both conceived their work in terms scaled to the universe; they looked to microbiology and physics, the landscape and the stars. Noguchi's earliest public art proposals (not included in the show but represented elsewhere in the museum) include, famously, a pyramidal Monument to the Plough meant to be a mile long on each side. His Monument to Ben Franklin, a totem to the avatar of American ingenuity, is modestly built as a prototype, the house was never put into mass production.

Though less practical even than the Dymaxion House, Fuller's 1933 Dymaxion Car advanced a little closer to production. Three examples were built and put on the road, one of which fell victim to a rear-end collision that unfortunately killed the driver; in short order, the project died as well. But Fuller's dream of an aerodynamic, flight-capable three-wheeled car had already captured the popular imagination (and, just as important, the support of celebrities—conductor Leopold Stokowski was an early owner). Noguchi helped when the public's interest in an early plastic model, now lost, a photo of it shows an impossibly refined design, all swell curves and suave, tapering

Noguchi: Monument to Heroes, 1943, wood, paper, bone and string, 28⅞ by 15½ by 1½ inches. Photo Kevin Noble.

Fuller: Dymaxion Car No. 1, 1933. Photo F.S. Lincoln.
Toward the end of his career, Noguchi returned to big futuristic works like the 1986 Challenger Memorial, a tower of face-bonded tetrahedrons in which Fuller's influence is again clear.

Toward the end of his career, though, Noguchi returned to big futuristic schemes in which Fuller's importance again became clear. The 100-foot-high Challenger Memorial (1986), made for the Noguchi-designed Bayfront Park in Miami, is a towering tetrahelix—a series of face-bonded tetrahedrons that is explicitly based on Fuller's ideas; a big steel version of a section of this form, included in the 1986 Venice Biennale, lies rather clumsily on its side in the exhibition. Fuller's best-known design paradigm, the geodesic dome, is reflected in only one work here: Noguchi's unrealized 1976 proposal for a Martha Graham Dance Theater, which would have been crowned with such a dome, as a jewel-like model shows. Noguchi's last built playground, the vast Moerenuma Park in Hokkaido (designed in 1988 and completed, with Sadao as executive architect, in 2005), includes an Octetra climbing element fashioned from Fullerite tetrahedrons, lopped at the corners, hollowed and stacked, and made of reinforced fiberglass. Displaced to an admittedly awkward side room in the exhibition, a scuffed orange Octetra module seems a little maladroit. But more appealing than ever, and not unrelated to Fuller's thinking, are the geometric fountains Noguchi made of metal and mist late in his career. Included in the show is a small stainless-steel model for Intetra Mist Fountain (1974-76) at Palm Beach, Fla.—a hollow pyramidal form with triangular cut-outs in each exposed face, and an interior fountain that would complete the shape with watery spray. Other fountains of the '70s involve cataracts and plumes of water which similarly assume almost architectural form.

If Noguchi's late work anticipates the acclaimed 2002 Blur Building by Elizabeth Diller and Ricardo Scofidio, Fuller seems to stand behind contemporary architecture's many tensile curves. Long cited as a precursor to Earthworkers like Michael Heizer and James Turrell, Noguchi is shown in this exhibition to have links at least as strong to the early Robert Smithson, enamored of big science and not shy of fantasy. Peter Fend and Alfredo Jaar have both advanced non-mainstream cartographic projections of the world, in the belief that alternative mapmaking is a good way to refresh political thought; Fuller had the same idea in 1946. His Dymaxion projection of the "Aircean World," with continuous landmasses and minimal distortion, was awarded the first cartographic patent in 150 years. Like much of the finest work both Noguchi and Fuller produced, "Best of Friends" was itself modest in scale but explored an outsized utopianism, shaped by faith in new technology and touched by a heterodox transcendentalism that still has an important place in American culture.

1. Sadao remains president of the architecture firm Fuller and Sadao PC, and is a trustee of both the Isamu Noguchi Foundation and Garden Museum, and the Buckminster Fuller Institute and SNEC (Synergetics Collaborative).
2. Mathematician Robert Connelly will deliver a lecture about Snelson and tensegrity called "Why Things Don't Fall Down," Nov. 20, 7 P.M. at the Kitchen in New York.
