# LANDSCAPE STRUCTURES ARE PART OF A COMPLETE MANAGEMENT PLAN

By Ruth E. Messinger, Contributing Editor

The domain of today's landscape manager extends beyond the planting and care of living material. A landscape includes structures designed to blend with the plant material and serve a practical or recreational function.

It consequently becomes advantageous for the landscape manager to gain skill in selection and care of certain landscape structures. This skill need not be limited to landscape architects. In fact, since the landscape manager must maintain the structures, his practical experience is a valuable contribution to their selection.

Split-log picnic tables, self-weathering bridges, stone aggregate planters, and rustic park shelters are popular architectural structures designed to blend with the natural environment. In contrast are structures which have a purely contemporary look—benches and planters of heavy-duty fiberglass and clean-lined site lights with tapered steel shafts. There is an abundance of products for every taste and land-scape need. Write numbers from 301 to 331 on reader card for more information.

#### **Benches**

All-heart California redwood is the material used in Rosenwach's (301) Sitecraft benches and matching planters and litter receptacles. The backless Parker bench is set on wood pedestals and made of border members dressed 13/4" x 51/2" and inner members nominal 2" x 4". A sculptured contour bench is set on a steel pedestal and comes in lengths to 84 inches. Planter benches are available also, in rectangular, square, and circular shapes. Standard rectangular and square benches are 18 inches wide and fastened by thru-bolted steel brackets.



**Rosenwach's redwood round planter** and circular planterbench are available in custom sizes. The planter has two-inchthick staves and galvanized steel hoops.

Algoma Net (302) has fashioned a line of benches for garden, terrace, paddock, or mall in southern yellow pine. The 42-inch garden bench is finished with an emerald-green, weather-resistant enamel paint and has a steel frame coated with satin-black enamel. The 60-inch mall bench, also suitable for playgrounds and patios, is equipped with well-spaced metal legs and finished in polyurethane.

Landscape Forms (303) offers the Trestle Group of benches and tables of red oak, redwood, and purpleheart with fiberglass and steel components. Inspired by European intricate wrought-iron benches, they have been translated into simple curves and rectangles

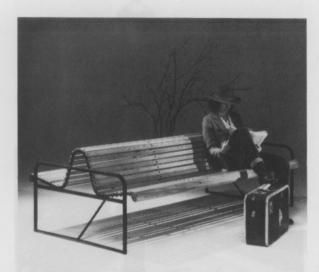
# Survey Reveals Trends Among Landscape Architects

A survey of 100 randomly selected landscape architectural firms in the United States in February 1981 by Infometrics, a division of Harcourt Brace Jovanovich Publications, revealed the following trends:

• One out of three projects involve public facilities, schools, and parks. This makes public agencies the largest user of landscape architectural services. Consultation and commercial construction projects each represented an average of 20 percent of landscape architectural business. Single residential and multiple residence (condominiums, apartments, etc.) each represent 15 percent of business performed.

• The highest dollar value of specified materials was for site details and construction, such as retaining walls, steps, roads, ramps, bridges, signs, etc. Sport and recreational materials represented the second largest dollar amount of specified material. Plant materials were only the third in value specified. Two-and-one-half times more money is directed toward site details than plant materials.

- Landscape architects generally recommend only four out of ten area landscape contracting firms to perform their plans. They exclude the other six for reasons of quality and reliability. They say two out of three jobs inspected are done correctly.
- 90 percent make maintenance recommendations to go with their plan to protect their work as the material matures.
- Architects have noticed increased competitive bidding among contractors in the last six months.
- Supplier product brochures with specifications and industry publications are the primary sources used by landscape architects for updating.
- Two thirds of the jobs performed by landscape architects are billed, including materials and fees, at more than \$20,000
- Applicants for landscape architect positions are in adequate supply and reasonably skilled for the job.
   Nearly two thirds of the architects polled said they had no difficulty in finding good applicants.



A curved double bench trestie with back by Landscape Forms is constructed of 1 x 2 oak and welded steel.

for contemporary or traditional settings. A double bench with back measures 52"D x 96"W x 31"H and is constructed of 1 x 2 oak finished for outdoor use. This style also comes with a single back or without one. Matching trash receptacles and kiosks are available.

Also by Landscape Forms is the Shadowline 3.1, adaptable to any setting with a choice of bases and proportions. Made of solid 2 x 3 boards and matching spacers and framed by 2 x 6 face boards, it has steel splines and concealed rods for durability.

Victor Stanley (304) produces the Homestead Series of outdoor benches in backed and flat designs. A traditional park bench has seat and back members of 2 x 4 fir, redwood, or purpleheart slats stained in walnut.

This company also offers a line of highly styled Unislat benches with slats that fit individually to the frames on special brackets. And a geometric bench, designed to encircle a tree, flower bed, fountain, or sculpture, is crafted of redwood, fir, purpleheart, or cypress in hexagonal or octagonal shapes.

For a really rustic flavor, there is BigToys's (305) People Bench, which seats up to five adults—or Vandy-Craft's (306) high-backed split-cedar-log swing seat (#33-C) with an overall width of 120 inches.

#### **Planters**

Fiberglass, the newest material for planters and planter benches, withstands heavy outdoor use. Landscape Forms's Mansard style planter bench (2.4A) measures 84" square x 34" high; wood seats are also available in red oak or redwood. The company's freestanding planters come in a variety of shapes, textures, and colors.

Apollo fiberglass planters by Valley View (332) are easily repaired, and their bottoms won't crack, freeze, or drop off. Their glazed exteriors give them a hearty appearance.

Two planters by Fesco (307) are made of Gem-Rock, a break-resistant material that helps soil retain its moisture and protects roots from sun. A round contemporary model is available in 12-, 14-, and 20-inch sizes. An ornamental 17-inch urn comes in a classic marble design. Both planters have a swirl-tone pattern to give them a natural appearance.

# **Park Shelters**

Poligon Division of W. H. Porter (308) offers prefabricated park shelters in six basic structures—three hexagon buildings from 36 feet in diameter to 60 feet,

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Project Area	Total Sample Dollar Volume	Average Sample Dollar Volume	Volume Share	Rank Position
Site details and landscape construction — like retaining walls, steps, roads, ramps, bridges, signs, etc.  BASE = 76	\$72,788,000	\$957,737	43%	plait shin display wit Another
Sport and recreational facilities — like parks, playgrounds, fencing, indoor/outdoor furniture, etc.  BASE = 73	44,930,000	615,479	27%	2
Plant design and composition BASE = 78	21,758,000	341,697	13%	3
Utility design — like water systems, fountains, rrigation ponds, pools, etc.  BASE =63	16,316,000	258,984	10%	4
Outdoor electrical systems — like walkways, tennis courts, recreational areas, shopping centers, etc. BASE =64	11,855,000	185,234	7%	5
TOTAL VOLUME =	\$167,647,000		100%	

Average value of plant materials specified in 1980 = \$341,697 Average value of landscape structures specified in 1980 = \$830,991



A hexagonal park shelter by W. H. Porter may be partially enclosed for rest rooms and storage.

two rectangular models (20-foot and 30-foot widths), and a 16-foot square building for use as a rest room or for shade on a golf course. The free-span design of the 16-foot model gives it an open, unobstructed interior. The popular Hex 36, when enclosed and insulated, will adapt to passive solar heat. A single Hex 36 has enough room for complete rest-room facilities with enough space remaining for concessions or storage.

All the buildings combine wood with a tubular steel space frame. Steel members bolt together for easy erection, and wood beams drop into purlin pockets attached to steel beams.

R. J. Thomas's (309) Pilot Rock park shelters have rustic wood-shake roofs and clearly defined steel understructures. They come in rectangular, hexagonal, and A-frame configurations. The open web truss design of the columns and roof beams creates an open-air effect.

From GameTime (310) comes a selection of linear shelters in five sizes which can be fully or partially enclosed with a panel system to form a concession stand or restaurant. The support columns are of vandal-resistant steel tubing, and the roofs have brown asphalt shingles. Doors, windows, and concession or display windows are optional.

Another GameTime structure is the prefabricated park and picnic pavilion of southern yellow pine. Its tongue-and-grooved roof is anchored by massive supporting columns and rugged cross members. Sizes range from 22′ x 27′ to 29′ x 116′, and all roof boards are precut to size and marked for installation.

Still another design is a pine golf course or rest shelter, which covers an eight-foot-square ground space.

# Lighting

Lighting products come in a choice of styles to enhance either a traditional or contemporary architectural setting. There is a broad selection of cast ornamental lighting posts, such as Spring City Electrical Mfg. Co.'s (311) line of historical designs. Borough Hall has a cast-iron pole that stands 8½ feet to 10 feet plus the height of the luminaire. Other pole heights range up to 20 feet, and multiple luminaires per pole may be ordered.

Western Lighting Standards (312) presents Turn of the Century lights in a variety of fixtures and finishes. The Victorian, with its tapered and fluted pole shaft



**Borough Post** is an ornamental cast-iron lighting pole by Spring City in the style of the 1890's.

and cast-aluminum base, is reminiscent of the royal palaces of the early Roman Empire. Lighting fixtures come single or in clusters of five and can be pendantmounted or post top.

The clean, flowing lines of contemporary lighting are embodied in Millerbernd's (313) Future Square Series, designed for a variety of installations, from shopping malls to parks and boulevards. The tapered shaft of each Futura model is square, and the mast arm is mounted at a 90-degree angle. There is a choice of tenon, single, or twin arms in four- or six-foot lengths, and slip-on mountings accommodate a variety of luminaires. Mounting heights up to 50 feet allow wide-area illumination.

Millerbernd discourages vandalism, a serious threat to outdoor lighting, by concealing the mounting bolts and nuts. And the high base of each model prevents bumps and scrapes from maintenance equipment.

Another collection of contemporary outdoor lights comes from Lightolier (314). There is a multi-faceted sphere with a beacon effect made of two hemispheres framed by cast aluminum which can be mounted on a pole or wall. A faceted octagonal site light has a framed enclosure of 25 facets of weathered brass. Its clear acrylic panels are shatter-resistant. An unusual approach to site lighting is the I Beam Cluster, made with two rows of single-piece globes, molded of impact-resistant polyethylene, which are fitted on both sides of an extruded aluminum beam.

#### **Litter Receptacles**

Litter receptacles are designed to meet large-capacity requirements of municipalities, parks, shopping malls, and plazas. Howard Products Division of United Receptacle (315) has both pole-hung, vandal-resistant metal receptacles and free-standing units. The R38 standard model is functional in shape and made of 18-gauge galvanized steel with a baked-enamel, high-gloss finish. It has four 5 x 21¾" openings and rounded corners for safety. A "Pitch In" symbol is silk-screened on two sides. The R38 also comes with wood or stone aggregate panels to blend with a natural environment.

Stone aggregate appears also in Clean City Square's (316) Model P30 litter container, which has a duronatic bronze finish. This receptacle is available in three sizes and five colors. A 30-gallon model measures  $24^{\prime\prime}$  x  $24^{\prime\prime}$  x  $36^{\prime\prime}$  and weighs 147 pounds.

A heavy-duty refuse container of commercialquality plastic by Rubbermaid (317) is designed for parks, where it is generally chained to a tree or fence. Another park model, from BigToys, is a rustic log container built to store a regular 50-gallon garbage can.

#### **Bridges**

Bridges are manufactured for pedestrian, bicycle, equestrian, golf course, and vehicle use. Continental Custom Bridge (318) produces custom-built bridges that span distances from 10 feet to 200 feet. They are available in painted carbon steel tubing or fabricated from the self-weathering Cor-Ten steel tubing, which deepens in color with the passage of time.

Valley View offers rustic cedar-wood bridges with handrails of northern white cedar. These bridges are made in three sizes and may be stained, painted, or left to weather to a natural silver-grey.



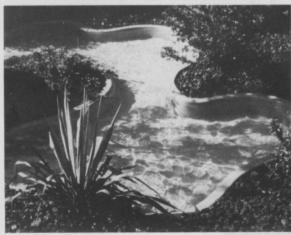
A rustic cedar wood bridge by Valley View of northern white cedar has rot-resistant handrails.

# Fountains, Waterfalls, and Pools

Restfulness is a cool fountain, and Reno Studios (319) designs and manufactures various types that add beauty to a formal or natural setting. There are traditional cherub and goddess statuary fountains and a Piping Boy who sprays water from a reed instrument into a fluted basin. For a contemporary environment, a tropical fish spouts water into a petal shell. The sculptured figures, bases, and pedestals are assembled to order. Rebecca at the Well, No. 285, stands 52½ inches high and may be combined with a pump tier measuring 45 inches in diameter and set on a 17-inch base.

Hermitage Gardens (320) presents an assortment of rock/waterfall/pool fiberglass units designed by Russell Rielle. Each unit (assembled to order) comprises a rock coupled with a small basin of water which is set in a larger pool. Water is transported from the larger pool by a marine pump for dispersal at the top of the rock. Pool colors are brown or aqua.

Valley View has added a U-shaped free-form pool to its Starmist line. This pool is about 131" long x 86"



Valley View's garden pools come in 15 styles and sizes and four colors. This U-shaped free-form model is 131 inches long and holds 180 gallons.

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wide x 81/2" deep and has an 180-gallon capacity. Its smooth Gel-coat finish is weather-resistant. Patented top and bottom anchor fins eliminate frost-heave and imbalanced settling. Four colors are available: Raven Black, Sand Beige, Ultra Marine, and Earthtone Brown.

Fountains from Otterbine (321) enhance the natural beauty of ponds and lakes and improve water quality. By aerating and mixing the water, they help biodegrade organic wastes and reduce carbon dioxide and



This Otterbine fountain enhances the beauty of the lake and improves water quality.

other gases. Each one-, two-, three-, or five-horsepower model has an aluminum housing and floats in the water by means of a polyethylene flotation device. Electricity is supplied through a cable with an underwater connector that runs from the pond or lake to the power source, such as the pump house of a golf course. There is a choice of three spray patterns—standard, starburst (finer spray), and rocket (straight up).

Another kind of fountain is Western Drinking Fountain's (322) Model 35. This drinking fountain of 10-gauge rolled steel has a green or bronzetone scratch-resistant epoxy finish. For added protection, there is an access panel fitted with vandal-resistant screws. The fountain is operated by a push-button, self-closing valve with renewable cartridge.

### **Bleachers**

Sturdisteel (323) makes a 10-row, 24-foot bleacher with elevated front walkway and aluminum seats and footboard. It may be ordered with wood seats and footboards, and in various lengths and row heights.

GameTime's galvanized steel angle-frame bleachers, also with aluminum seats and footrests, come in 8-foot or 15-foot sections, shipped knock-down. Each unit supports a load of 120 pounds per square foot. Frames are electrically welded into integral units and galvanized for rust-resistance.

#### **Playgrounds**

An abundance of modular wood playground systems have components that give every muscle a workout: climbers, crawlers, ladders, slides, parallel bars,



Playworld System's Tothouse combines a wood-and-steel ladder with a sheltered rest stop and slide.

whirls, buck-a-bouts and swings.

GameTime's Timb "R" Mod Play Systems can be customized for varying age groups. There are seven different base platforms, and more than 45 components are made to link platforms or connect to one platform only. These components are built of southern pine which is treated with a salt preservative. A spiral slide in brilliant yellow and rustic brown is available seven or ten feet high with a safety metal stairway and double handrails to provide maximum security. Other components are a suspension bridge, log-roll attachments, and swing links.

For an individualized playground unit that can be expanded as needed, GameTime offers the Mod "U" Log System of linkages and attachments. Many of its components are interchangeable with the Timb "R" Mod Play System.

An innovative concept by this manufacturer is the Atom Splitter swing. It features five swings encircling a suspended ball. The ground space is 30 feet in diameter, the overall height is 11 feet, and the weight, 188 pounds. Colorful climbers are available too, in a profusion of designs (Conestoga wagon, fire truck, railroad, etc.). They are made of galvanized pipe with no sharp angles or exposed bolts.

Action Products (324) offers play structures of 6" x 6" southern yellow pine timbers treated with Osmose K-33. Slides, trapezes, swings, and ladders are expandable to meet the physical requirements of any park or playground.

Two new construction climbers come from J. E. Burke (325) —the Burly Dumpster, a climber that looks like a dump truck (15'L x 6'4"H x 3"4'W), and "Front End Funster," a climber that resembles a front-end loader (10'5"L x 6'3"W x 6' 2"W).

Playworld Systems's (326) wood structures include the nine-foot Tire Swing Combo with chain-swung tire and a ladder and slide. The Tothouse (PW-280) is an imaginative unit that has a ladder leading up to a roofcovered platform, from which children slide down on the other side.

BigToys offers a unique chain network and log system called "Suspended Animation." The chains form

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**Big Toys' eight-bike rack** is made of wood and steel with both sides open for parking. Part of its frame is set in concrete.

a moving, flexible bridge which is suspended from an arched ladder composed of pipes and log foot supports.

This company also has a complex structure that includes five distinct play locations linked by a series of balance beams, a low catwalk with a handrail, and a horizontal ladder. The system is appropriate for children from late preschool to primary age.

#### **Tables**

Many new park and picnic tables feature bent legs that enable users to walk through without tripping. R. J. Thomas's 48-inch-square Pilot Rock park table is surrounded by four individual benches with back rests. A colorful umbrella provides shade from the sun and shelter from rain. The umbrella, which can be removed for storage, is seven feet in diameter and has crank-shaft tilting for positioning at various angles. The tabletop, benches, and back rests are of two-inch pressure-treated lumber.

Another Pilot Rock model is a six- or eight-foot picnic table with galvanized diagonal braces and center cleat that fastens the top securely.

Patterson-Williams's (327) standard and heavy-duty picnic tables are made with steel pipe frames and ei-



Patterson-William's picnic table features a heavy-duty square frame. Seats and tops are aluminum or hemlock.

ther maintenance-free anodized aluminum or preservative treated hemlock seats and tops. Widths are 6, 7.6, or 8 feet.

Vandy-Craft treats its tables with a special stain to help guard against warping, grain-raising, and weathering. Its redwood barbecue sets have separate matching benches in 60-inch, 70-inch, or 94-inch lengths.

A unique redwood Combo Bench (#26) converts into a table when the back is folded down. It is bolted and screwed with rust-resistant hardware and measures 35"H x 70"L x 26½"W. A pair makes a full sixinch table-and-bench set.

Vandy-Craft also offers unfinished cedar-log and pine tables with kiln-dried tops and seats. Three standard tables have eight-inch seat boards: #21-C measures 30" x 58" x 30"; #24-C is 30" x 70" x 30"; and #25-C is 30" x 94" x 30". The deluxe models have 36-inch tops and 10-inch seat boards.

GameTime's heavy-duty aluminum picnic tables are built to withstand abuse with minimum maintenance. The end frames are of 2%-inch O.D. galvanized steel pipe, ¾-inch larger in diameter than the company's standard model. Seats are 6, 8, or 15 feet long.

For extra comfort, there is GameTime's picnic table with seat backs. This one is made of cool-to-the-touch aluminum anodized slats of 2" x 10" wood and comes in 6- or 8-foot lengths.

And a wheelchair picnic table in aluminum or wood allows a handicapped person to join the fun. Its top extends 12 inches beyond the benches and has no obstructing posts or beams.

# **Bike Racks**

Rally Racks (328) produces bicycle installations to encourage organized parking, prevent theft, and protect frames and wheels from damage. Model RR-30 accepts all bicycles and locking devices and secures the frame and both wheels with only a lock. It is constructed of heavy-duty steel and aluminum, coated and anodized for durability. A universal slot provides for special locks and chains.

A bike rack from Playworld Systems is easy to assemble and lags onto existing hard surfaces. The main framework is of 1%-inch O.D. galvanized pipe with %-inch O.D. galvanized pipe. The unit is available in a 5-foot section with eight openings or a 10-foot section with 18 openings.

Playworld Systems also has a wood bike rack (B7803) to enhance a rustic environment. It accommodates 16 bikes, and the frame is made of 6" x 6" and 4" x 4" southern pine.

BigToys's eight-bike rack (PF-5) of wood and steel has both sides open for parking. Part of the frame is set in concrete to prevent bike theft.

Another rustic bike rack comes from GameTime. This model, No. 676, covers a ground space of 11'3" x 3'1", and its center rail uprights are of 6" x 6" pressure-treated yellow pine. Other racks by this company will accommodate up to 54 bicycles and are made of galvanized steel.

# **Landscaping Materials**

Osmose K-33 pressure-treated wood has a lightgreen color that blends with the natural colors of Continues on page 84

# Structures from page 80

shrubbery, flowers, trees, and grass. It provides longlasting protection from rot and decay as well as termites. McArthur (329) supplies K-33 pressure-treated lumber, timber, ties, post, and poles for most any land-

scaping application.

Old Dutch Materials Company (330) presents Cobra, a polyethylene edging for lawn and garden care. Cobra is corrugated so it can be bent and shaped without loss of stability. Each corrugation forms a built-in pocket to hold the edging in place, and the doublebarbed base anchors firmly to the ground. Another feature is an arrow 2/3 of the way down the flange which reduces frost-heave during a thaw.

Artistone, a new line of landscaping stone products by American Pelletizing(331), adds a final decorative touch around plants and borders, walkways, and pavilion areas. It comes in eight varieties, including marble, volcanic rock (lightweight), and strata (resembling tree bark), and an array of colors. Artistone products are packaged in 1/2-cubic-foot, cubic-foot, and 50-

pound sizes.

As Paul Friedberg, a New York landscape architect, says, "There is an incredible quantity of pieces. In the last 15 years, we have had a richer, more exciting selection. There has been a major shift from metal to wood, which is warmer visually and physically." For the future, he sees a need for elegance, a move away from the block-like, "architectonic" designs. "We have become more sophisticated," he says. "The next step is an improvement of particular items and more subtlety of expression."



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