RicoRock INC.

Faster Better Waterfalls

CUSTOM PROJECTS: Cast concrete rock work from an innovator of artificial rock since 1979.

Natural waterfalls have been enjoyed by people of all ages and cultures throughout history. The craftsmen who use RicoRock have a passion for re-creating this natural beauty and our goal is to provide products and the support needed to make those projects successful.

The famous rock pool and cave at the Playboy Mansion were built in 1971 and are still in great shape.

When Hugh Hefner asked us to design-build a pool remodel for the Playmate House, a home he purchased across the street, we knew we had a high standard to meet.

The Mansion project used only natural rock but cast rock was used in the remodel because the pool shell was not engineered for the weight of natural rock.
Hefner specified the stacked boulder look and stylized side waterfalls. (see cover)

The Playmate Pool, our signature project

The original pool shape was great for a natural pool but the grade was completely flat. Foam blocks were used to create a form for the main waterfall. RicoRock castings were secured to a rebar cage and backfilled with concrete for the structure.

The original concrete decks were broken up and stacked to create raised deck areas. Raised planters help soften the 9 foot high feature.

Douglas Newcomb, landscape architect

Rock textured deck, coping and a beach area complete the lagoon pool. Cast rock was also used to veneer small retaining walls for continuity.
This project received a gold medal from the National Pool Spa Institute (now the APSP) in 2002.

What was it like working there?

Better than you can imagine, although not like you think. We worked with Hank Greenberg, grounds manager, and other long time (20-30 year) employees who treated us well. We ate breakfast and lunch every day at the outdoor kitchen that feeds the 50 plus regular employees of the Mansion but Hef, the playmates and VIPs had their own space.

Tours were given to our crew and guests on many occasions; it takes over an hour to explore 5 acres of gardens, monkey and bird habitats, the underground gym, the Pinball/rec cottage and of course the rock pool and cave.

Hefner's lifestyle is controversial but he is a class act as far as we are concerned. It was a highlight of our 30 years in business to work near the original grotto pool that has inspired so many imitations over the years.

a note from the managing director

Rock making is a craft that has been challenging and rewarding for me for over 30 years. I was trained by Julian George who pioneered the modern cast rock industry although the craft dates back hundreds of years.

In 1979, after three years working on large zoo and hotel projects, I adapted techniques for using artificial rock on residential swimming pools. After 25 years of building over 1000 projects I decided to focus on making castings for other rock makers and training a younger generation.

Most of the skilled crew of Rock Formations Inc, the parent company of RicoRock, still work directly or indirectly with us and we have trained many new dealers.

Our Modular Products are very successful but we have a renewed focus on FRC products and services for custom projects, which this handbook is all about.

Comments or questions can be sent to bruce@ricorock.com

While naturalistic rock work will never go out of style we are excited about working with the contemporary designs that are in fashion.

Our new series of slate castings has hard lines, texture contrasts and angularity that can be used in a modern design that is more art than nature.

RicoRock Inc. was originally a division of Rock Formations Inc., which built rock pools in California from 1979 to 2003. Companies with Rock Formations as a name in at least five states are RicoRock dealers but all are independent companies under different management and are not a part of RicoRock Inc., a Florida corporation.

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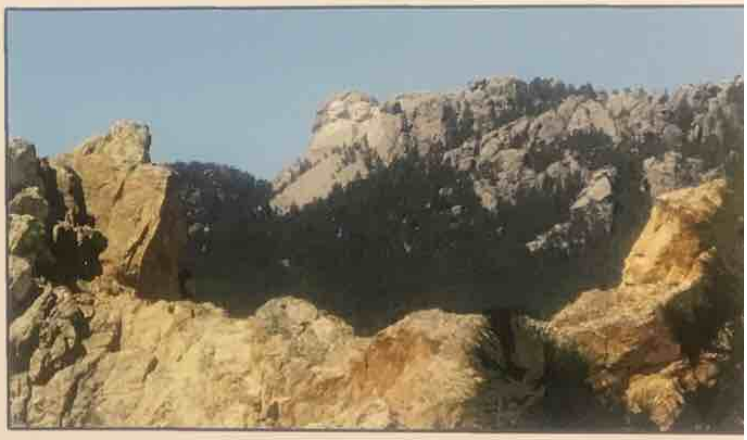
Products & Services

RicoRock Inc. has offices in Florida and Texas that manufacture and wholesale rock castings made of FRC (fiber reinforced concrete).
Our most popular products are standard designs for swimming pools called Modular Waterfalls (see separate brochure).

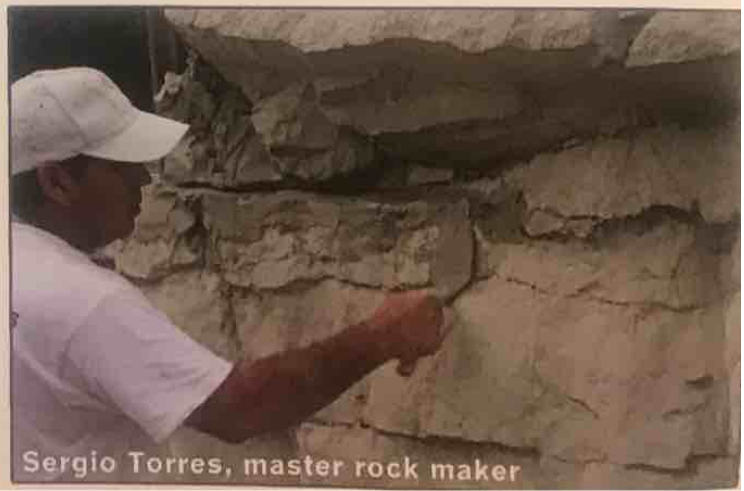
We have hundreds of independent dealers through out North America and preferred dealers in several states, some of whose work is shown here.
We offer consultation for the design, engineering and estimating of projects, especially residential and small commercial applications.

We often provide on-site foreman level technical support for companies with limited cast rock experience and send crews to areas without a RicoRock dealer.



Our castings are made using molds we create from natural rock formations, without harming the natural environment. A new series of fractured granite molds was taken from this site near Mount Rushmore, South Dakota.

Building artificial rock features requires specialized skills to set, blend and color the castings as well as an understanding of steel reinforced concrete.
Our tech support guys have from 7 to 25 years of full time rock making experience and were involved in most of the projects featured here.

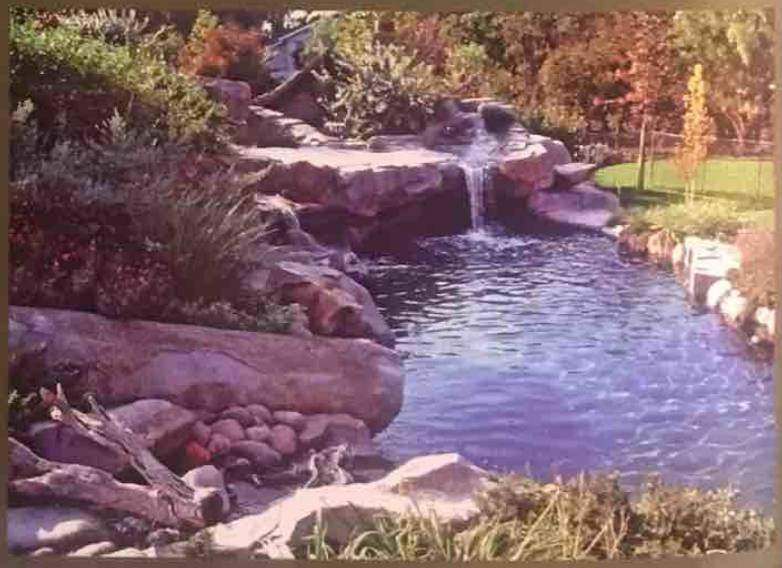


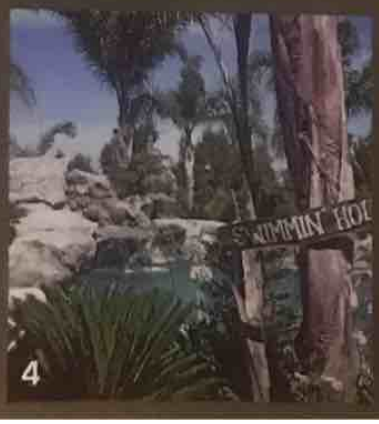
Sergio Torres, master rock maker

Classic Lagoon Pools

Starting in 1979 we pioneered a unique style of rock pool that used artificial rock for the entire perimeter and waterline, pool steps and beaches as well as rock textured decking.

These pools are timeless, they never go out of style. The designer for these pools was Tom Bench, who now manages our construction services from the Texas office.





Douglas Newcomb, landscape architect

Remodels: Construction techniques for adding rock work to an existing pool shell are the same as with new construction. A pool engineer might require reinforcing the pool shell or the footings may have to be as deep as the adjacent pool, especially if a large feature creates a surcharge and is attached to the pool.

Juan Garcia, CA

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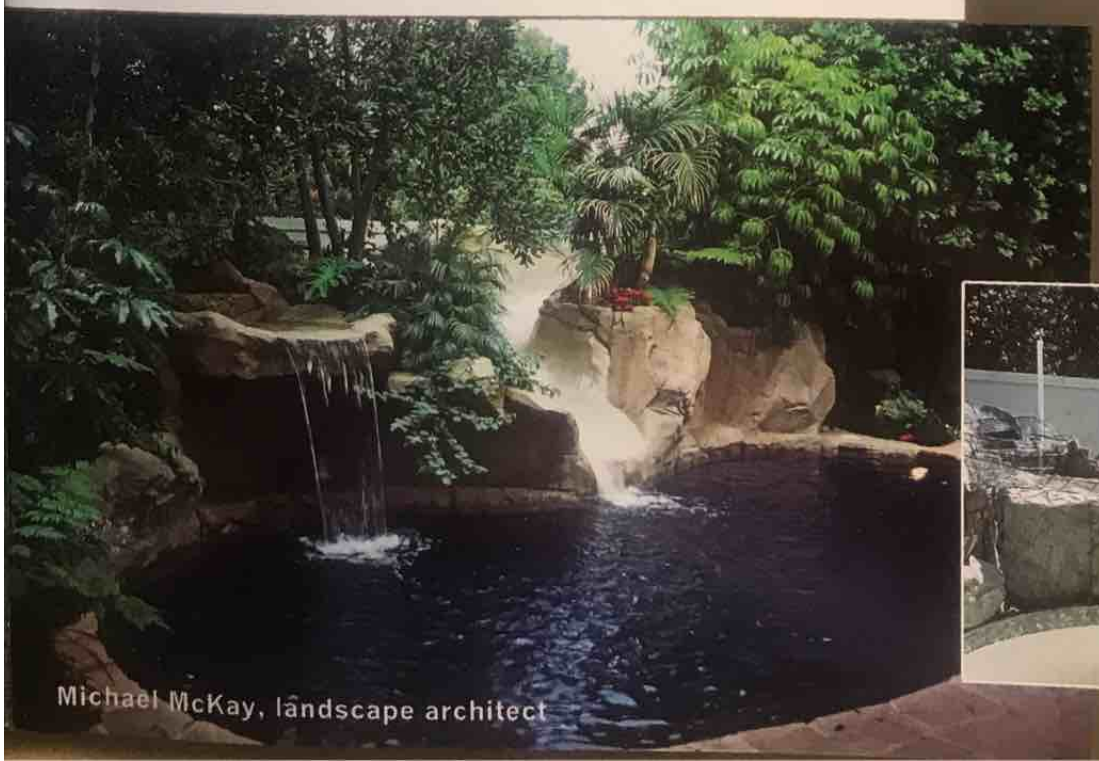


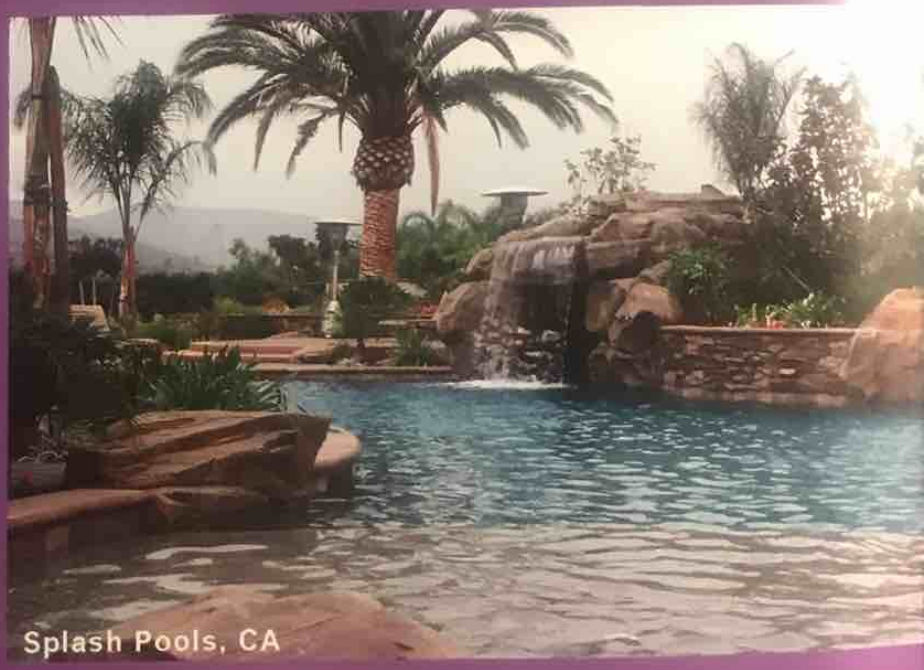
Michael McKay, landscape architect

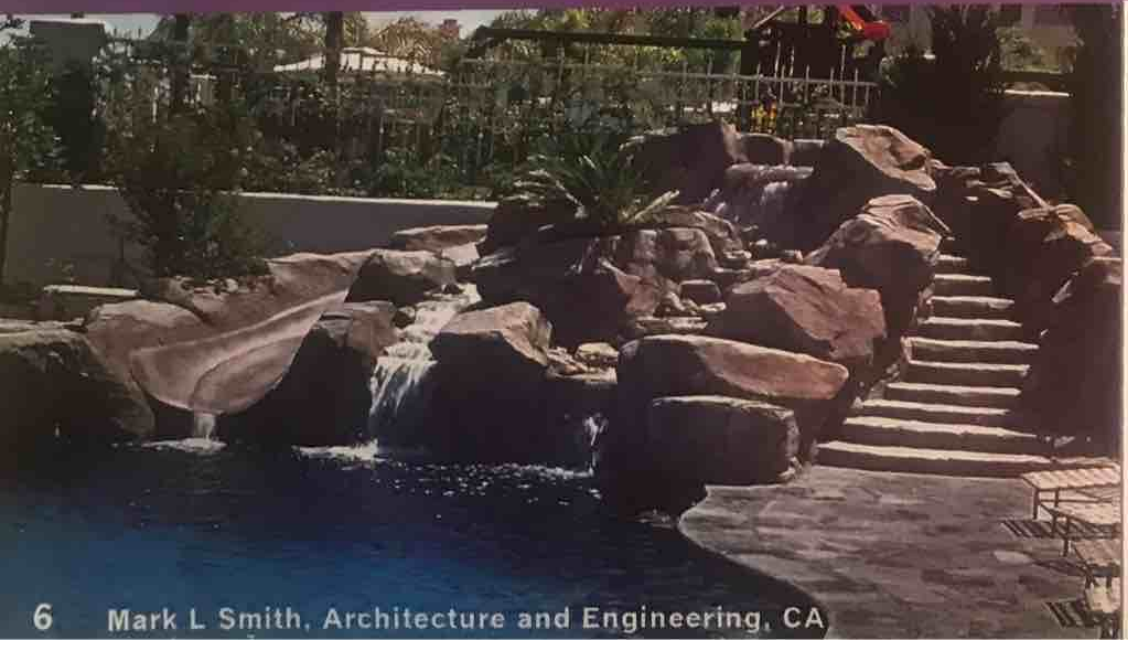
Greenwood Landscape, NY

Rock Images, GA

Rock Features on Conventional Pools

Cast rock works well with masonry and concrete treatments on pools as long as there is color harmony. Strong landscaping in raised planters or mounding helps create a natural setting and can enhance the background.
Artificial rock is a better choice than natural rock for swimming pools because of the reduced weight and because it allows for more creative design.


Splash Pools, CA


Mark L Smith, Architecture and Engineering, CA

Dolphin Pools, LA

Westmoreland Pools, PA

This project features the 4 Ft. Double, 5 Ft. Triple and 3 Ft. Modular Waterfall kits installed together to create a custom rock formation. RicoRock castings were used as a retaining wall at the base of the hill.

Modular Products Catalog

Creative Installations of Modular Product

RicoRock has 7 Standard Waterfall designs for stand alone features; used together they create a custom looking but affordable project. Our precast coping/waterline can be used on the perimeter. See our Modular Product catalog or website for more information.

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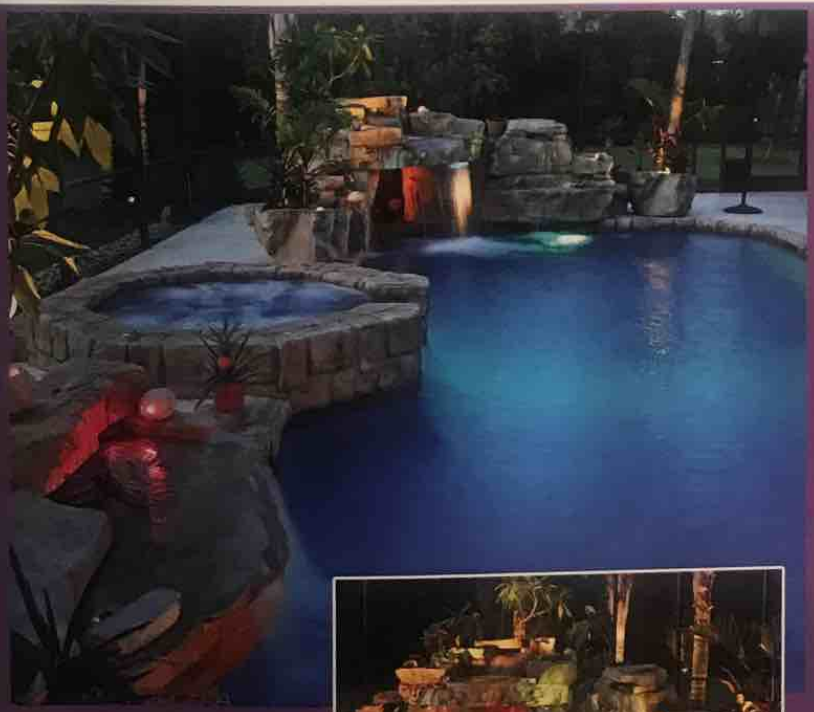
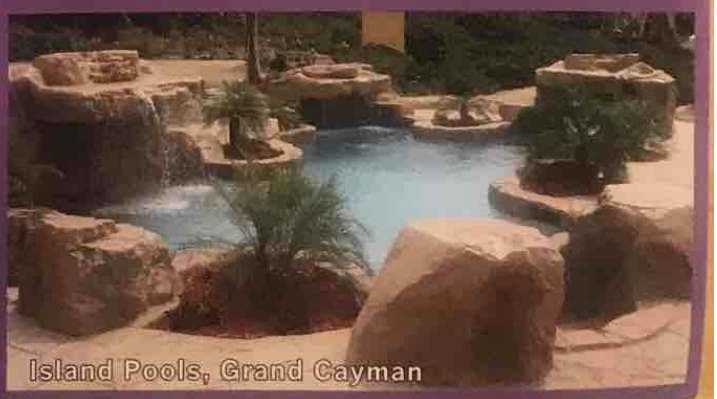


Funscapes, Puerto Rico

Coastal Coatings, FL

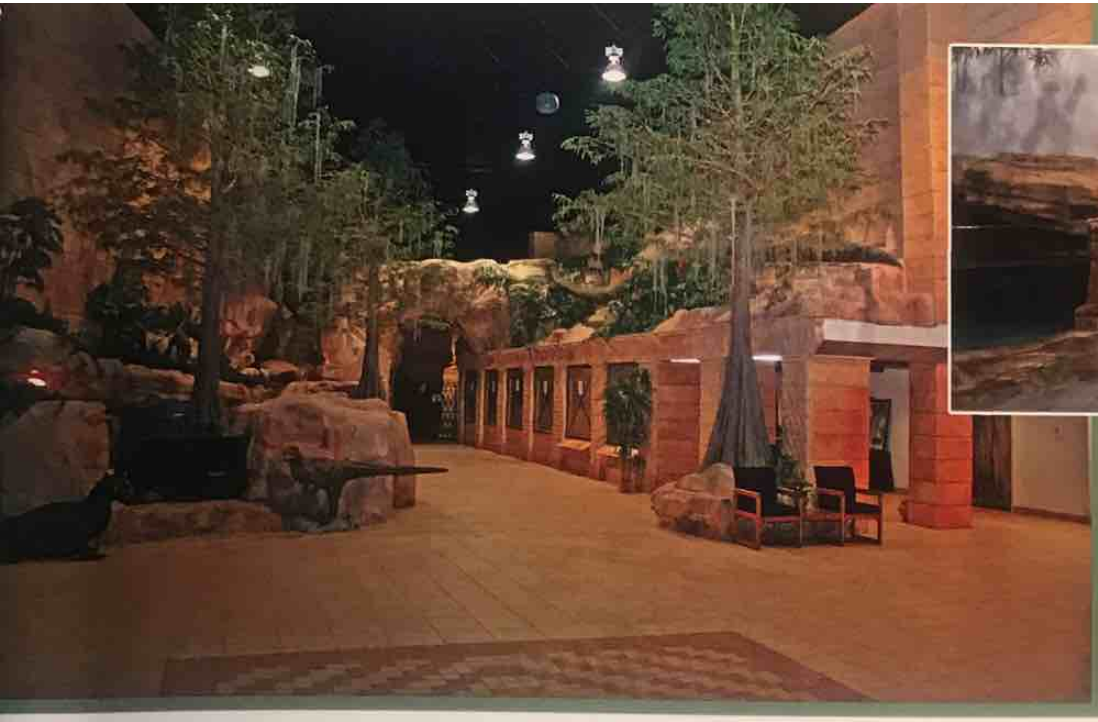


Island Pools, Grand Cayman

Ed Stone Associates, landscape architect

Commercial Water Features

The Radisson Aruba has waterfalls at the entry to the hotel and another feature near the pools. The design adds drama to the changes of elevation and has a natural feel.



The Creation Museum in Kentucky features a pond with acrylic windows and a tunnel into the exhibit area.

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The island waterfall, right, aerates a pond and is a visual focal point.

The cascade, below, dominates the landscape for a condominium courtyard built on a parking garage.

The Japanese inspired design, lower right, creates a calm reflective atmosphere for an office lobby.

American Pond, NJ

Galper, Baldon Associates, landscape architects

Cliff Hoskins, landscape architect

The L.A. Group, landscape architects

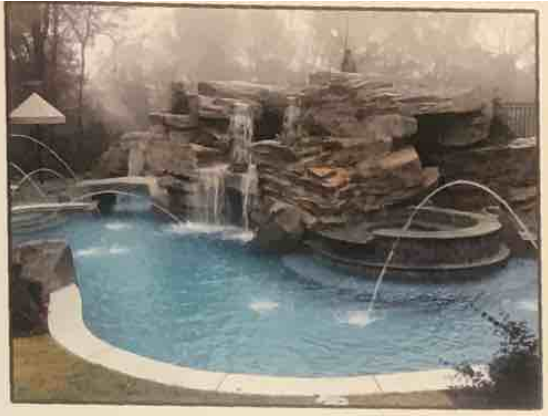
Caves

There is something mysterious about a cave that makes a spa or sitting area more relaxing. Openings define the mood of the cave and even small "windows" are interesting. In warm climates a higher ceiling and more openings are recommended. Mechanical ventilation may be needed, especially if there is a spa.

The rock work above is over 15 years old in this photo, with no maintenance. The gradual fading of the colors is offset by the patina concrete gets as it ages. Re-coloring is widely available at minimal cost and the cast concrete will last indefinitely.

Every cave is unique although construction techniques are pretty standard. Castings are attached to a rebar cage per engineered specs and then lots of low slump concrete is shaped, waterproofed and textured.

Caves should have independent footings from the adjacent pool or the pool shell can be extended so that it supports the entire structure. Differential settling can be a problem.



Rigo Banueles is a master with FRC and worked in Japan on some of the most elaborate cast rock projects ever built. He is a project manager for our most demanding projects.

The morning fog accentuates the old world atmosphere of this walk through cave. The strong geological shapes are very dynamic and make it a more powerful structure.

Rigo Banueles, Rock Images, GA Allgood Outdoors, landscape architect

This cave has a floor 24 inches below grade so the overall height is less. The pool shell was extended to support the entire structure.

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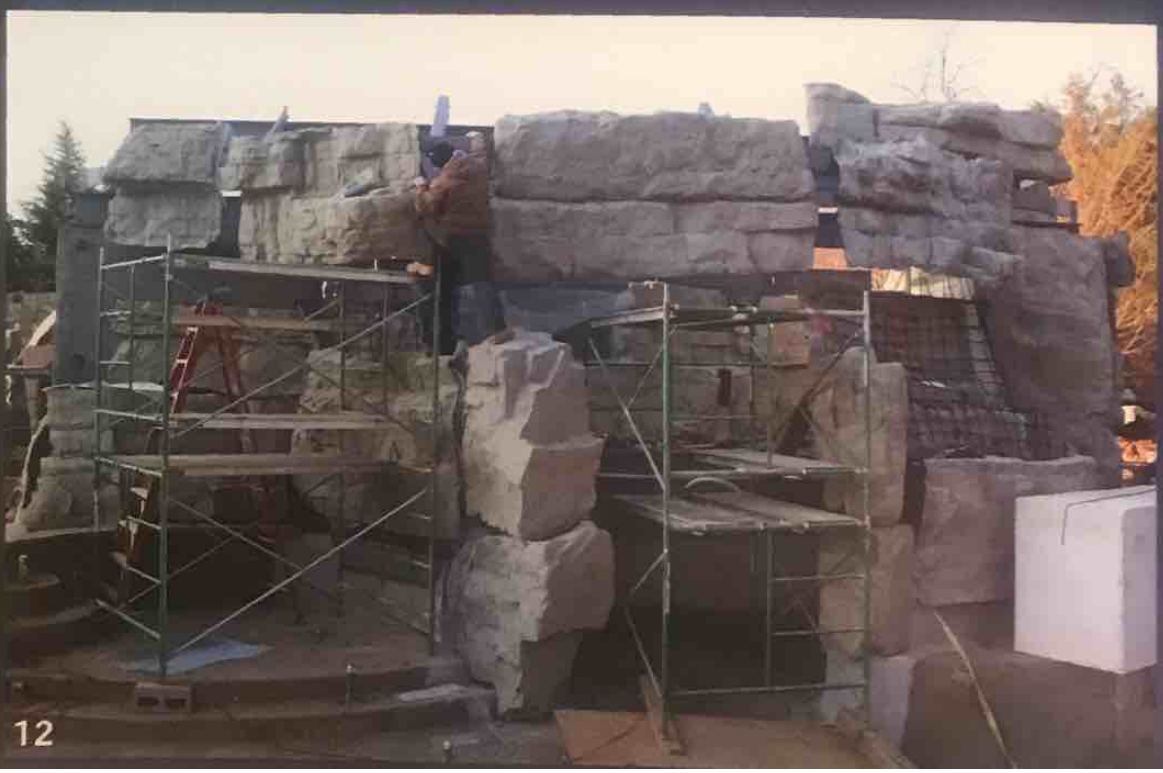
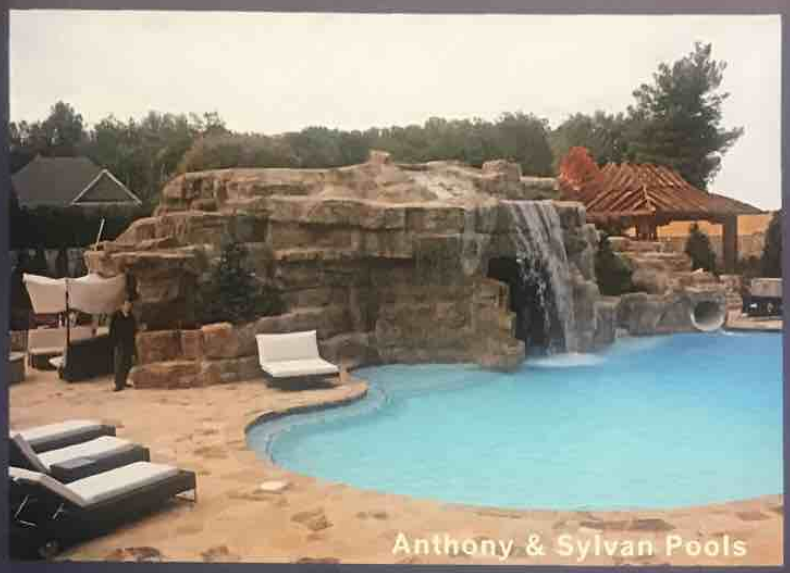
RicoRock has smaller caves as standard designs like the one below that are very affordable.

Rock Formations Texas, TX

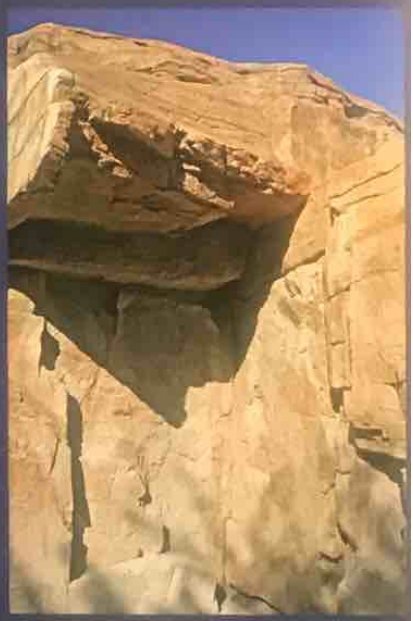


The 34 ft. span required I-bean
Several construction technique
were gunited to a 14 ft. height
outside of the steel frame, in
bolted to the concrete walls or
provide more relief, castings in
backfilled with concrete. The s
to a steel frame.



Pool House/Cave Virginia

This cave design started out simple enough with just a 12 ft. spa but along the way TV's, a fireplace, a bathroom, air conditioning, floor heat, an aquarium, bar and water slide were added.
The owner specified no windows but daylight comes through the swim-out to the pool and there are louvered lights as well as wall fixtures and a fiber optic starlight effect to set the mood in the evening.
The 14 ft. high ceiling creates an open feeling and is comfortable for a couple or small party.
Two 400 lb. doors hidden in the rock work open with a finger push and close automatically.
RicoRock tech support and crews from several of our dealers completed the project in 6 months.



construction for the roof.
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her areas castings were
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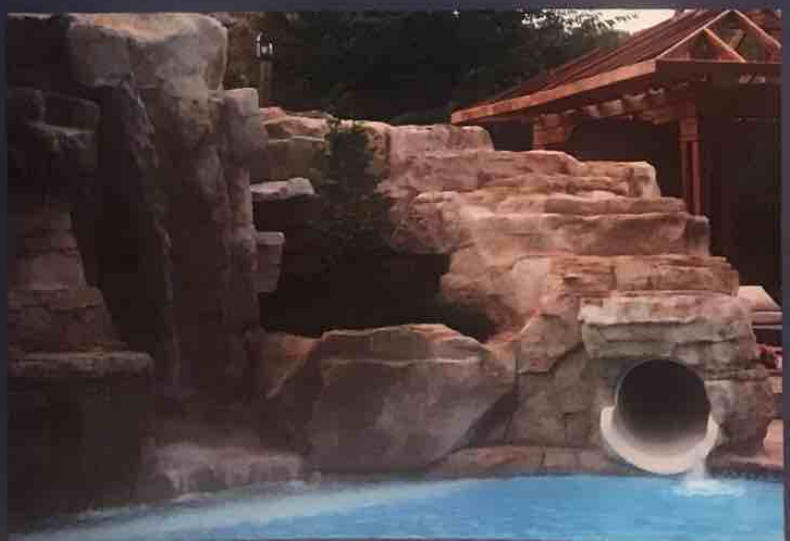
other areas were
de structure was welded

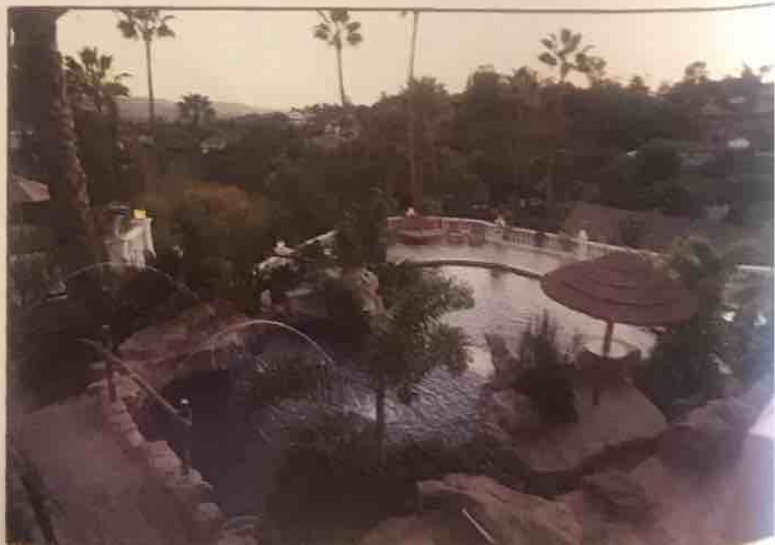


G.G. Rocks, CA, Friendly Hills Pools & Spas

Nick's Resort, California

This spectacular project has it all: a bar/cave, fire effects, great lighting, a tube slide, and several smaller waterfalls and rock features throughout several levels.

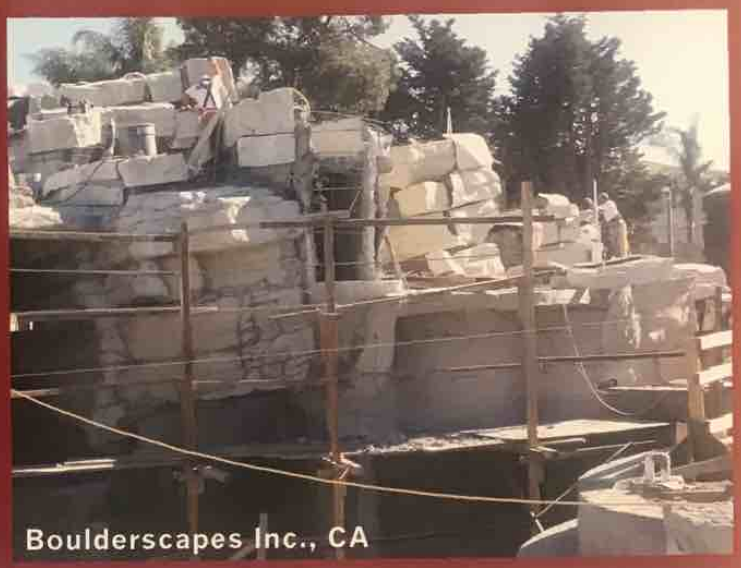
The pool house is below the pool deck with windows into the pool.



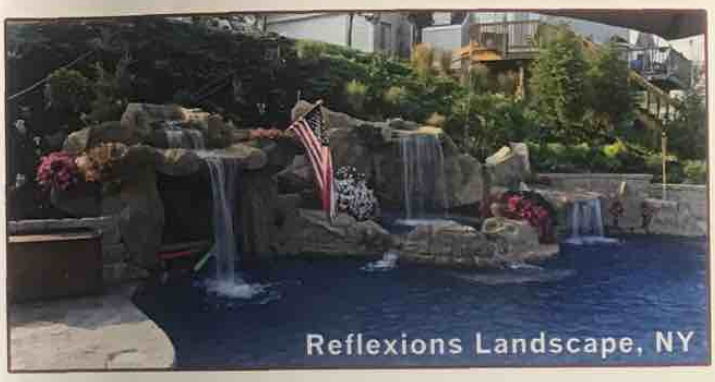
Raised Bond Beams

This is one of the most challenging situations a rock maker faces: how to veneer a flat wall but have the rock formation appear natural.

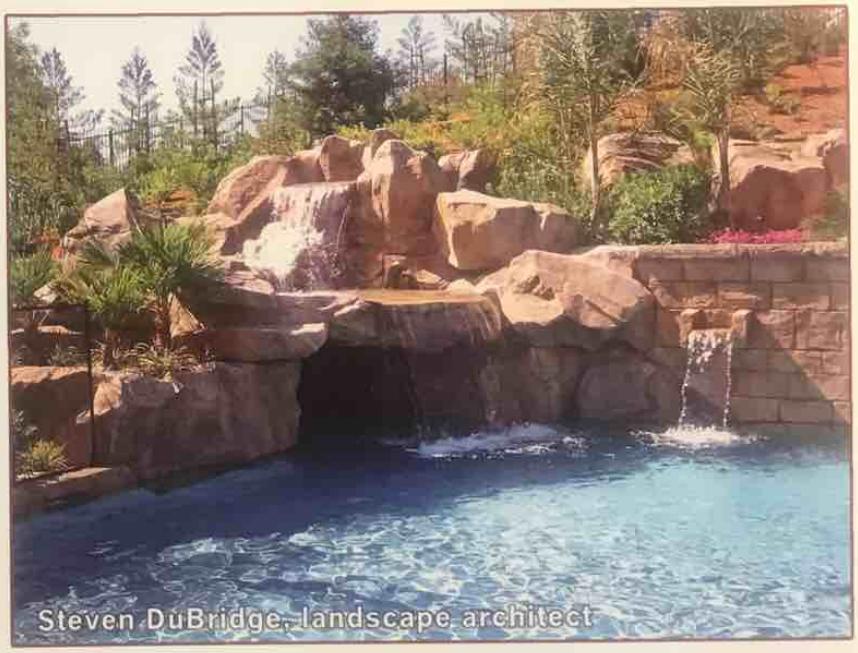
Castings can be bolted directly to a raised pool beam or attached to a rebar frame, then backfilled with concrete.



Boulderscapes Inc., CA

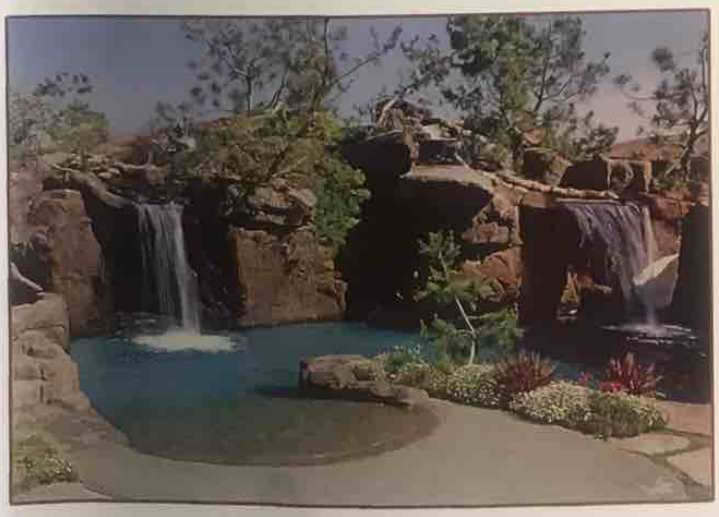


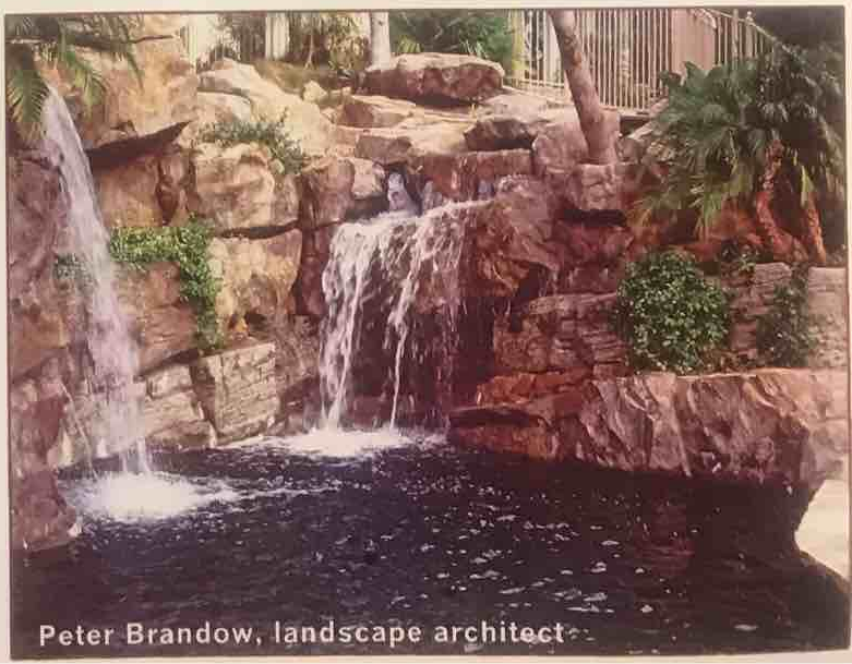
Reflexions Landscape, NY



Steven DuBridge, landscape architect

Grottos and cantilevered rocks create the illusion of depth on a flat wall.
The project on the right has a 5 ft. raised beam and for visual interest a large area was veneered with "castle stone"; three scuppers add to the overall effect.

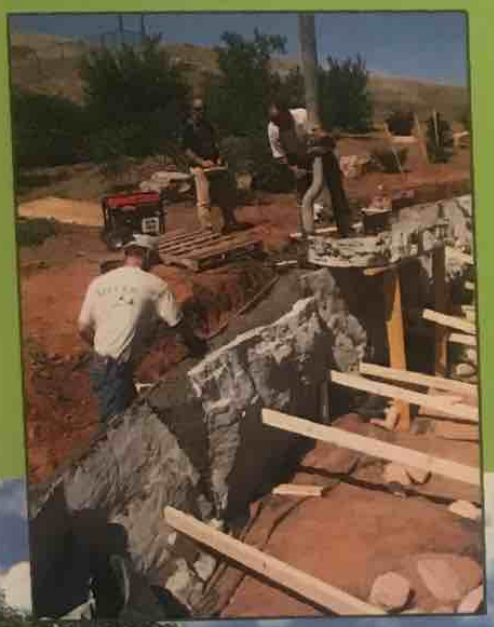




Peter Brandow, landscape architect

The 8 ft. raised beam (right) was broken up with layers of rock mimicking strata found in natural formations.
Limestone castings were used for contrast with the majority of rock being fractured granite.

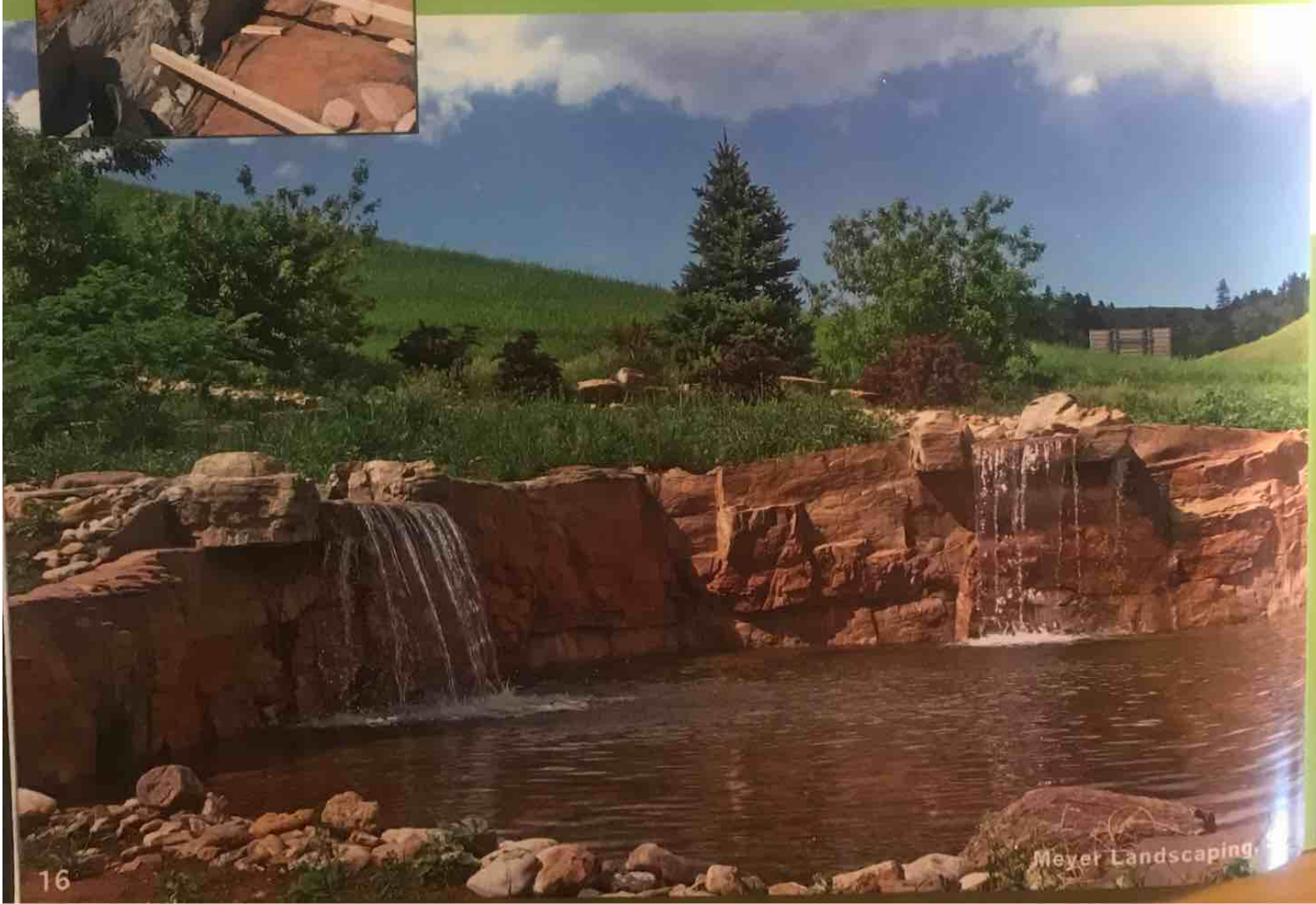
Our limestone panels are popular for retaining walls because they flow together.



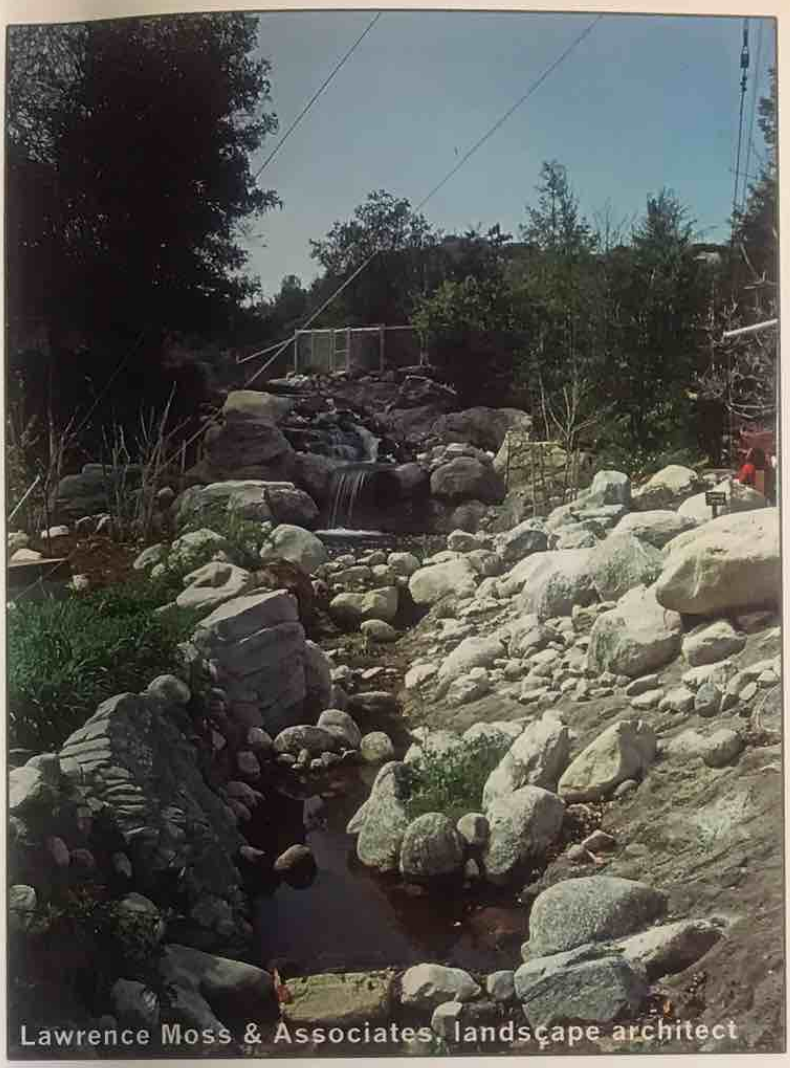
Retaining Walls

The most under used application of FRC is for retaining walls. Castings can be secured to existing walls with anchor bolts but it is not difficult to cast them in place. Traditional footings, steel reinforcing and drainage are used although most applications require extra concrete backfill.

This application has a pond liner partially up the backside of the castings since the waterline is higher than the bottom of the rock.

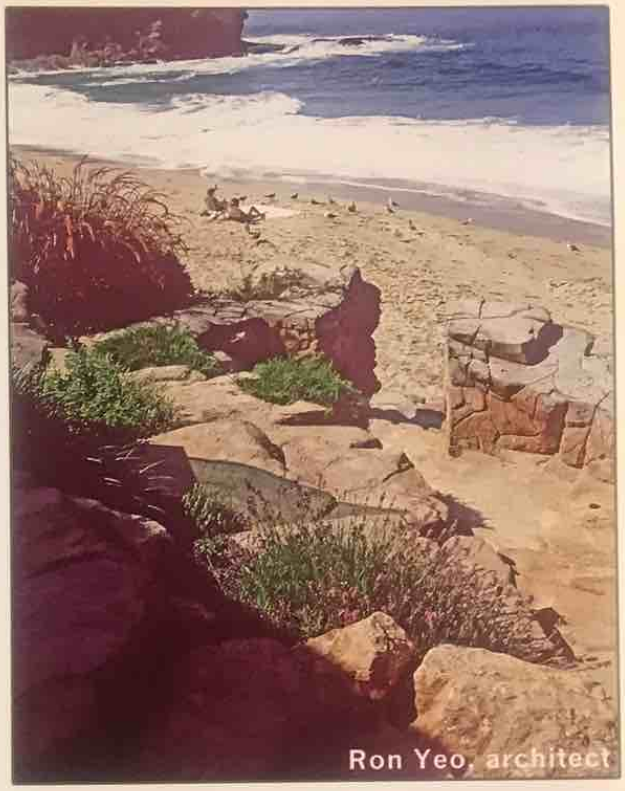


Meyer Landscaping



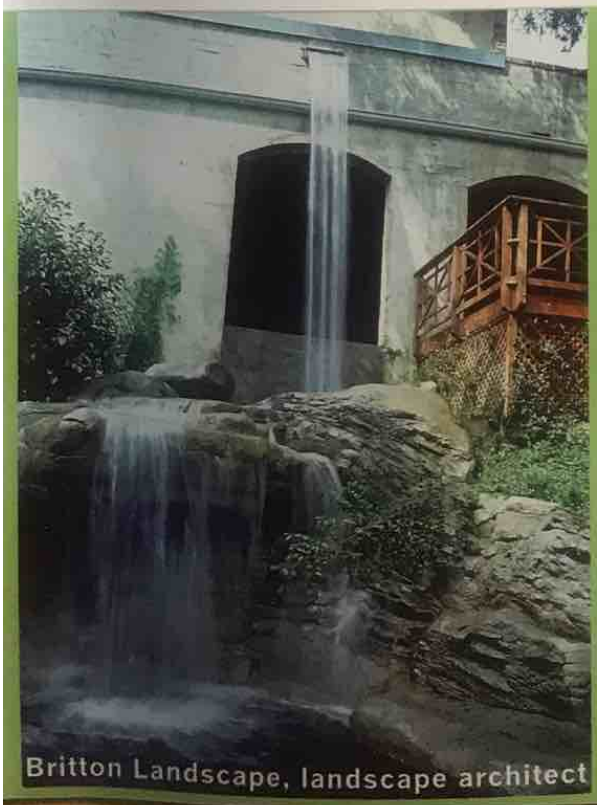
Lawrence Moss & Associates, landscape architect

This storm channel was approved by the Corps of Engineers for Descanso Gardens, it features FRC castings on the left side and natural boulders with soil cement on the right. Water circulates in the upper area.



Ron Yeo, architect

Castings were used instead of traditional rip rap for the beach wall above. No reinforcing steel was allowed so the rock was cast in place up to 5 ft. thick. A path and steps make it functional.



Britton Landscape, landscape architect

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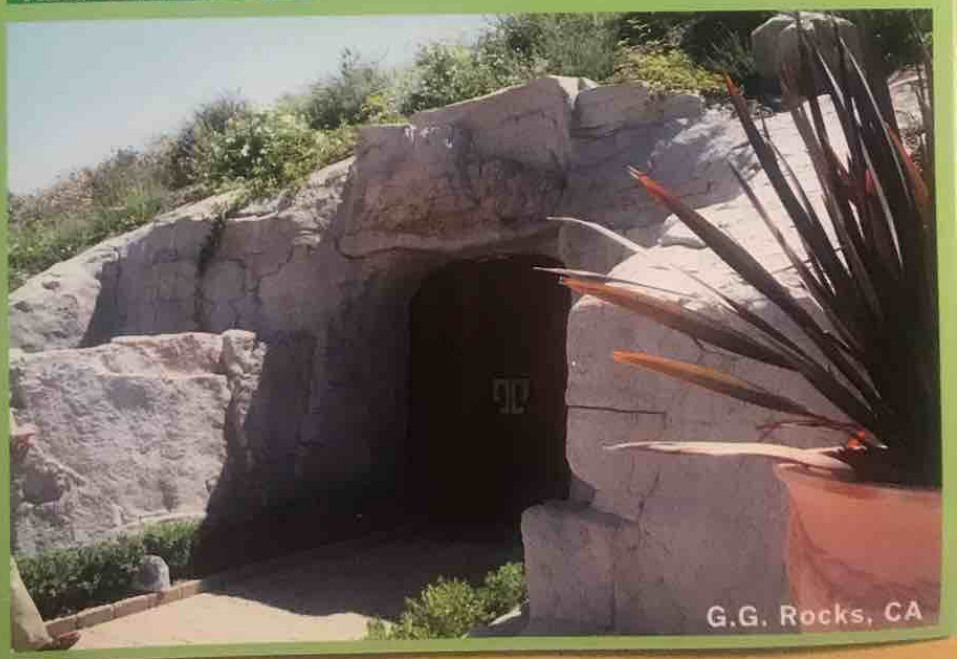
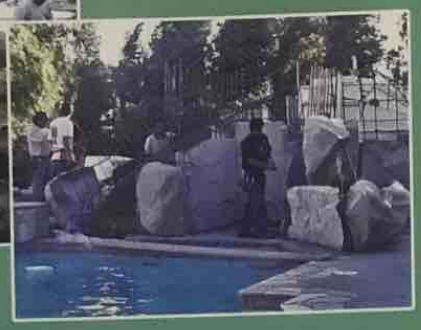
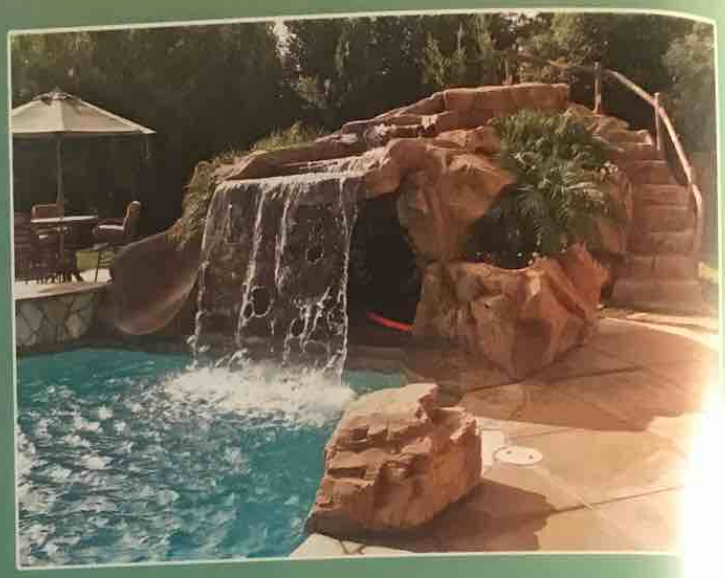
The entry to a wine cellar dug into a hillside uses cast rock to disguise the structure.



G.G. Rocks, CA

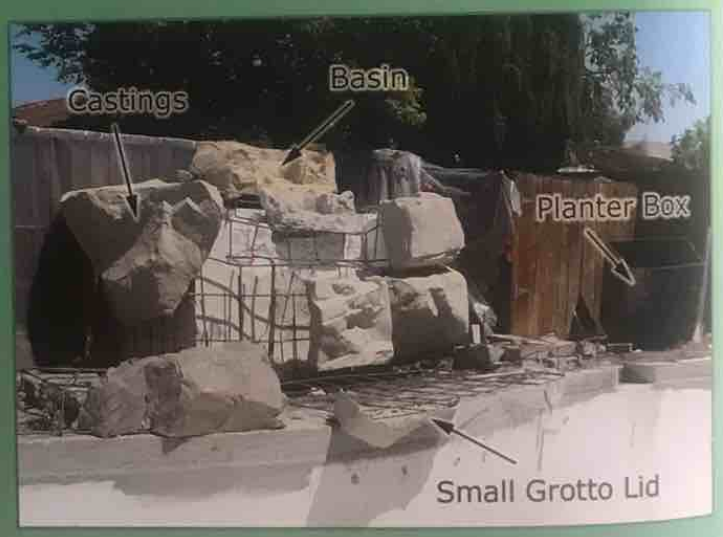




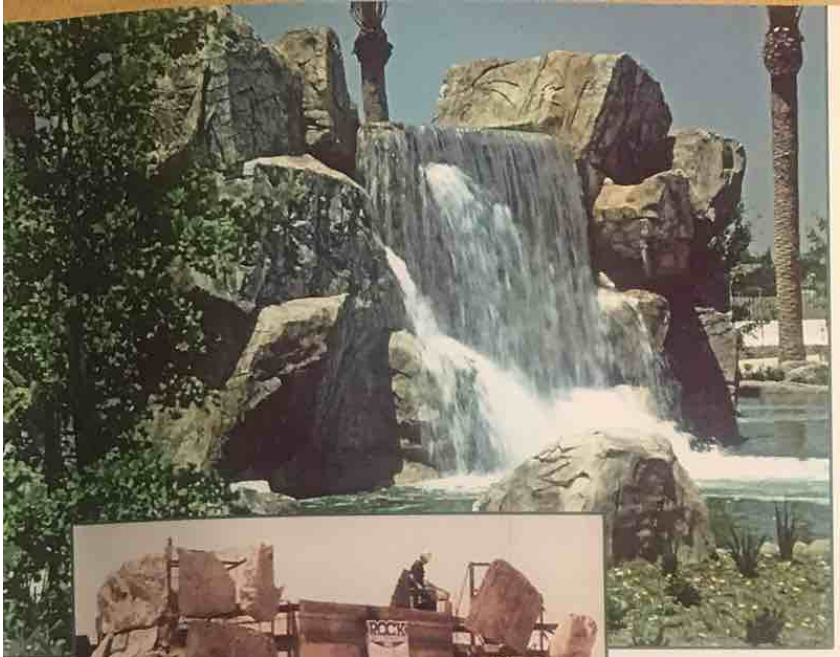
Techniques: Freestanding

Cast rock structures require footings, depth is determined by local soil conditions. Sleeves for drains, irrigation and lighting go in before concrete. Small raised planters can be formed with pegboard on the backside and a casting face.

Form work can be time consuming so EPS foam blocks can be used as a quick form. RicoRock castings come with 9 gauge wires so they can be attached to rebar.



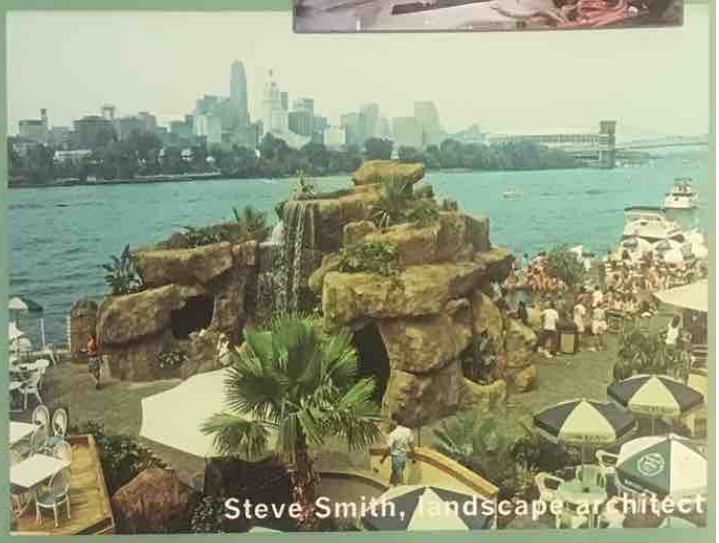
Hillsides should be cut as terraced benches with deep pilings as required. Engineers like to have slip joints at the beam so the hillside structures move independently (note plastic sheeting at bond beam). Drainage is also important.

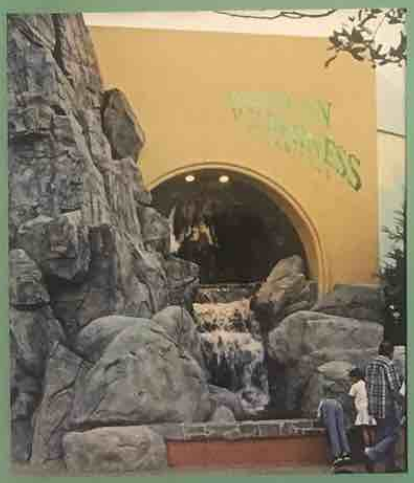


Steel Frame Construction

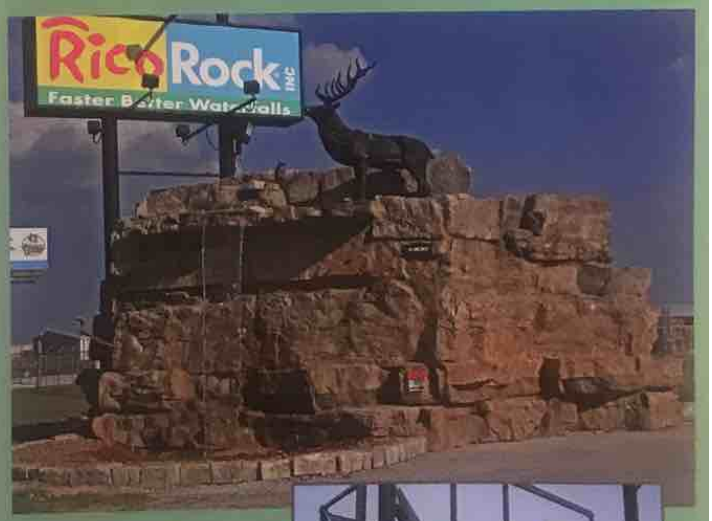
Rock structures over 20 ft. high can be built using a structural steel frame and welding the castings to the frame. This allows for creativity because the rocks can project several feet away from the frame. No backfill with concrete is needed but water course areas should be built with steel reinforced concrete and waterproofed.

Our most unusual project was built on an oil barge converted to a floating pool/bar near Cincinnati.

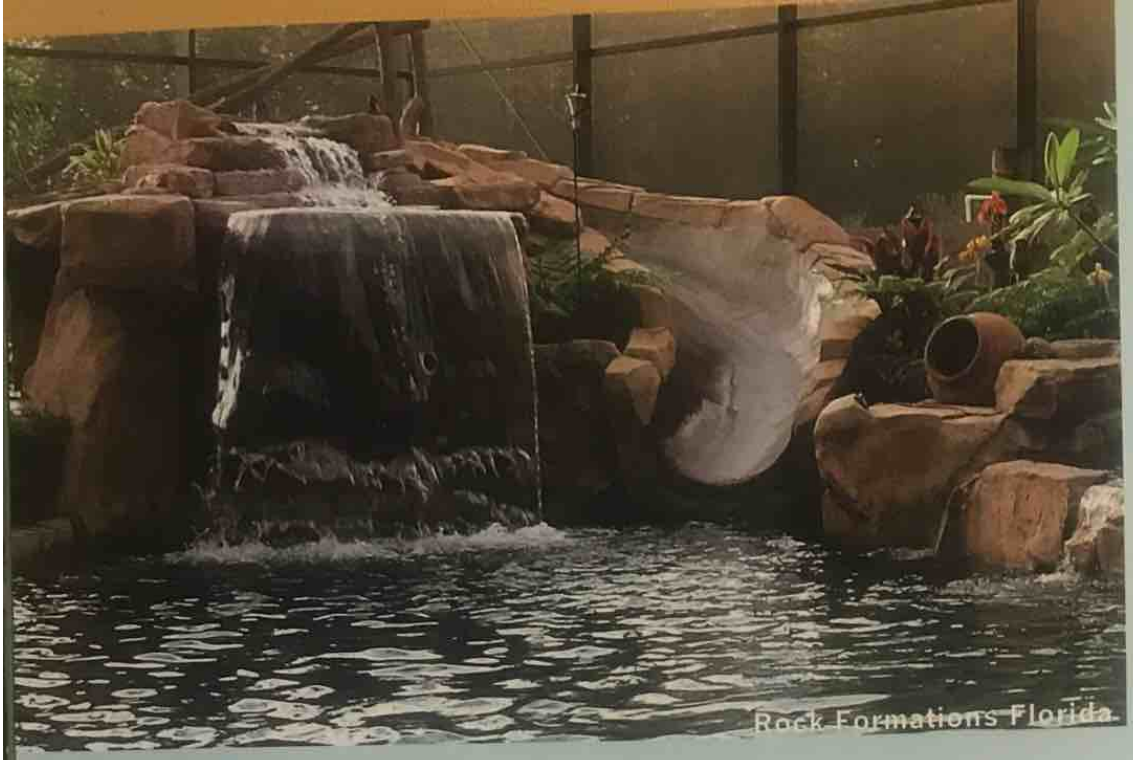




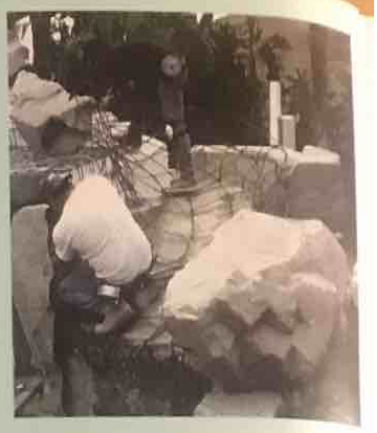
This creative design at the entry to a mall blends the rock feature and mural together to create a 3D environment in a small space.



The display at our Texas office was built using pallet racks; it is not a permanent structure.



Rock Formations Florida



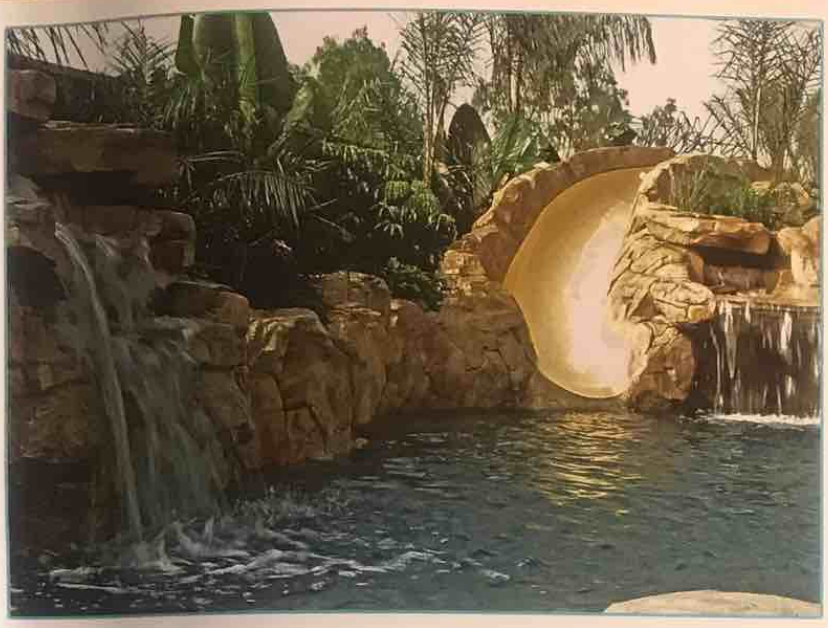
Waterslides

There are many options for rock themed water slides for residential pools. Concrete structures were favored in the past but a lack of standards for their construction and on-going maintenance make them less popular now. Fiberglass flume and plastic tube slides are more user friendly but some people still like the durability and style of a custom concrete slide.

Concrete slides are typically steel reinforced concrete with a hard troweled finish that receives a wax or sealer.
Long slides built into hillsides need caissons to hold them in the hill and slides over 30 feet might require joints to allow for expansion.

One piece kiddie slides with ladders are by far the least expensive option (left); the rock work to encase the slide costs more than the slide itself.

An unusual but affordable option is a playground type plastic slide, available in many colors, with a hand textured log look (right).



American Pond, NJ

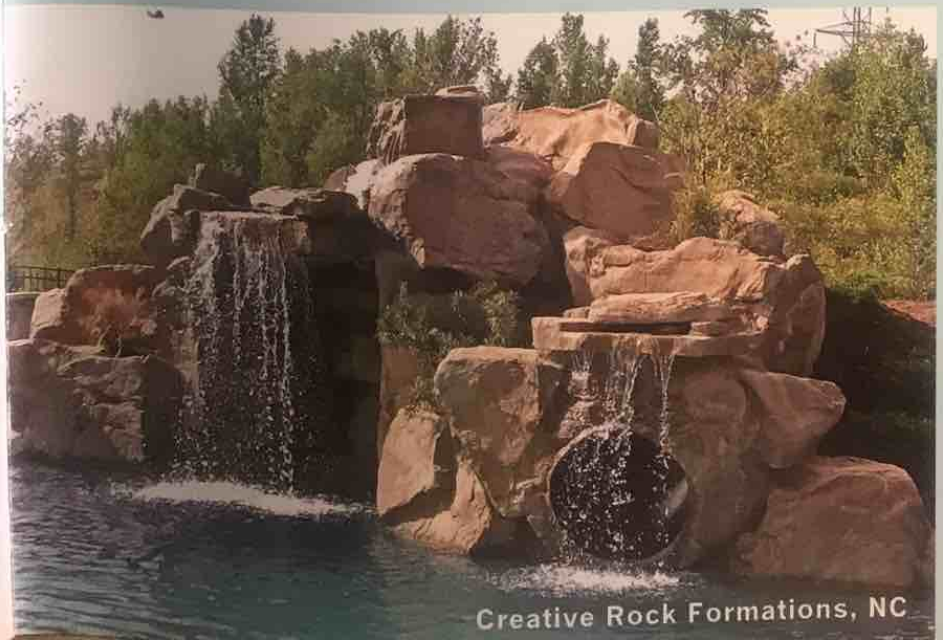
One piece fiberglass slides like those made by Dolphin Waterslides are popular because they are comfortable for adults and they last indefinitely with little maintenance. They can be ordered with a simple support system or a custom angle iron frame can be made.
Castings can be backfilled with concrete by using a pegboard form system or welded to an angle iron frame.

RicoRock INC.
Faster Better Waterfalls

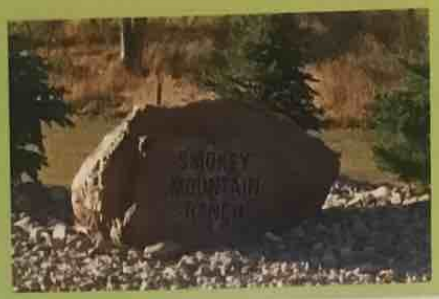
A **standard RicoRock kit** for a right turn Dolphin slide is more affordable and includes cast rock, steps and rail. It installs in two days while custom projects require one week or more. (right)

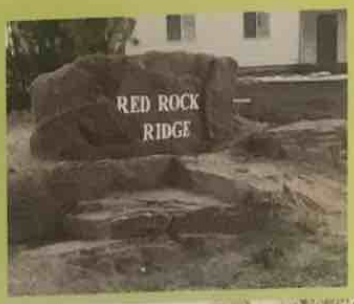
Down To Earth Landscape, NC

Tube slides are preferred by those who want to disguise the slide better. Most tube slides are 32 inches in diameter so an adult cannot sit up inside.
In order to backfill a tube slide with dirt or cover with castings a rebar cage and concrete may be needed. For above ground installations an angle iron structure works to support both the slide and the FRC castings.



Creative Rock Formations, NC





Other apps:

Signage can be sandblasted in the cast rock or attached to the face of the rock. A waterfall can also attract attention to a sign.

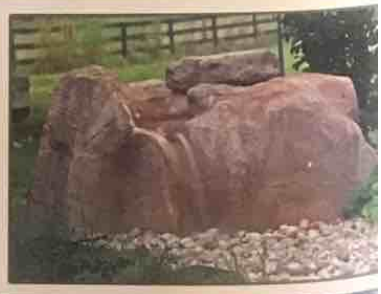
Cast rock mixed with natural boulders can allow for more scale or create a bedrock effect with smaller cobbles on top.

Tom Bench, UT

Pond & Garden Products

include a stone bench and several one piece waterfalls and columns for pondless applications using buried vaults for the pump and water supply.

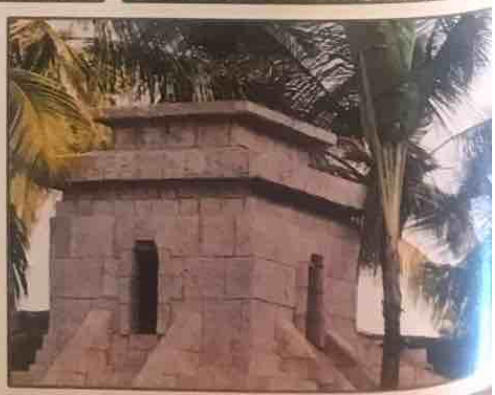
Southern Grace, VA



Veneer Stone

RicoRock cast coping and veneers can create an old world look to compliment a waterfall. (left)

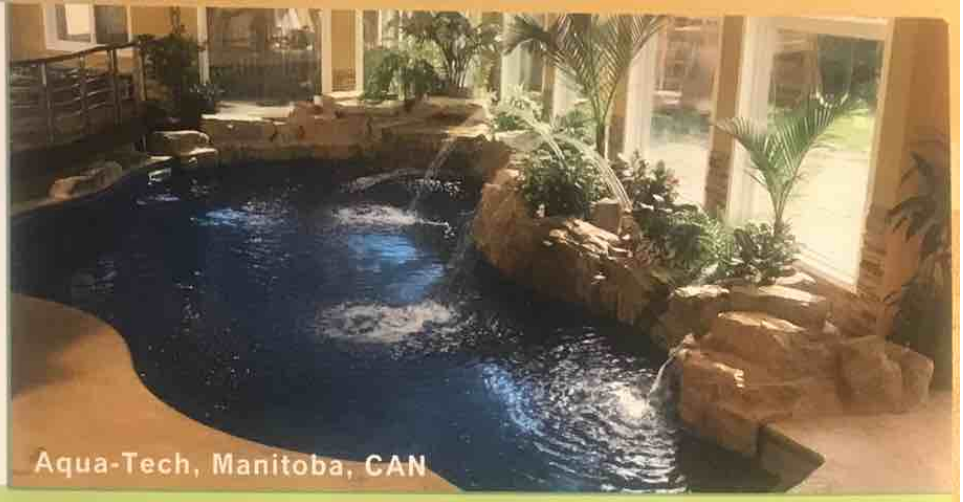
For larger projects hand textured castle stone is an economical way to add character to a flat wall. (right)



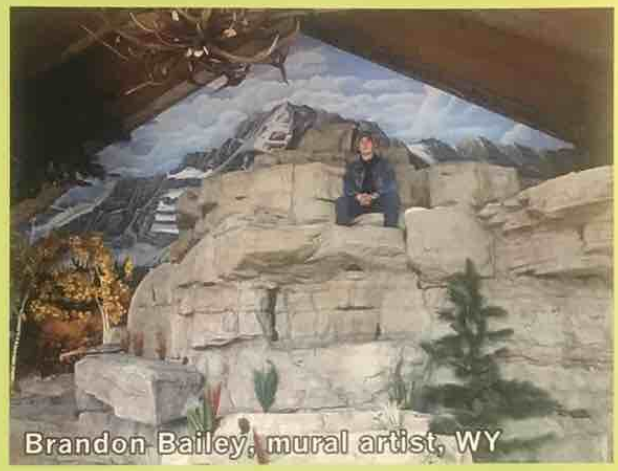
RicoRock INC.
Faster Better Waterfalls

Interior Treatments

Indoor waterfalls look as good as outdoors but the sound is amplified.
Special precautions have to be taken with indoor features to be sure they are completely water tight. A liner type backup is recommended.


Aqua-Tech, Manitoba, CAN

rairie Mountain Wildlife Studio, SD


Brandon Bailey, mural artist, WY

RicoRock can provide or install lightweight urethane castings that make dramatic interior rock formations easy to install. These are special order products and not for outdoor use.

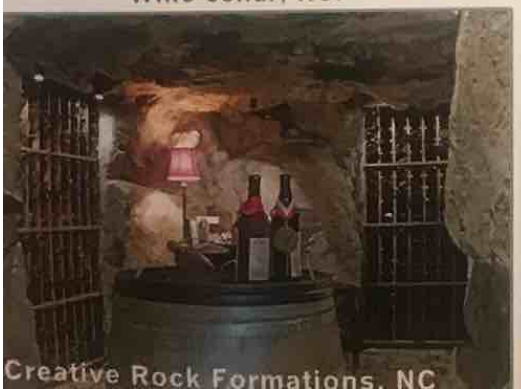
& R Creative Amusement Design

Miniature golf course, CA.

Entry water feature, CA.

Planters at staircase, CA.

Wine cellar, NC.

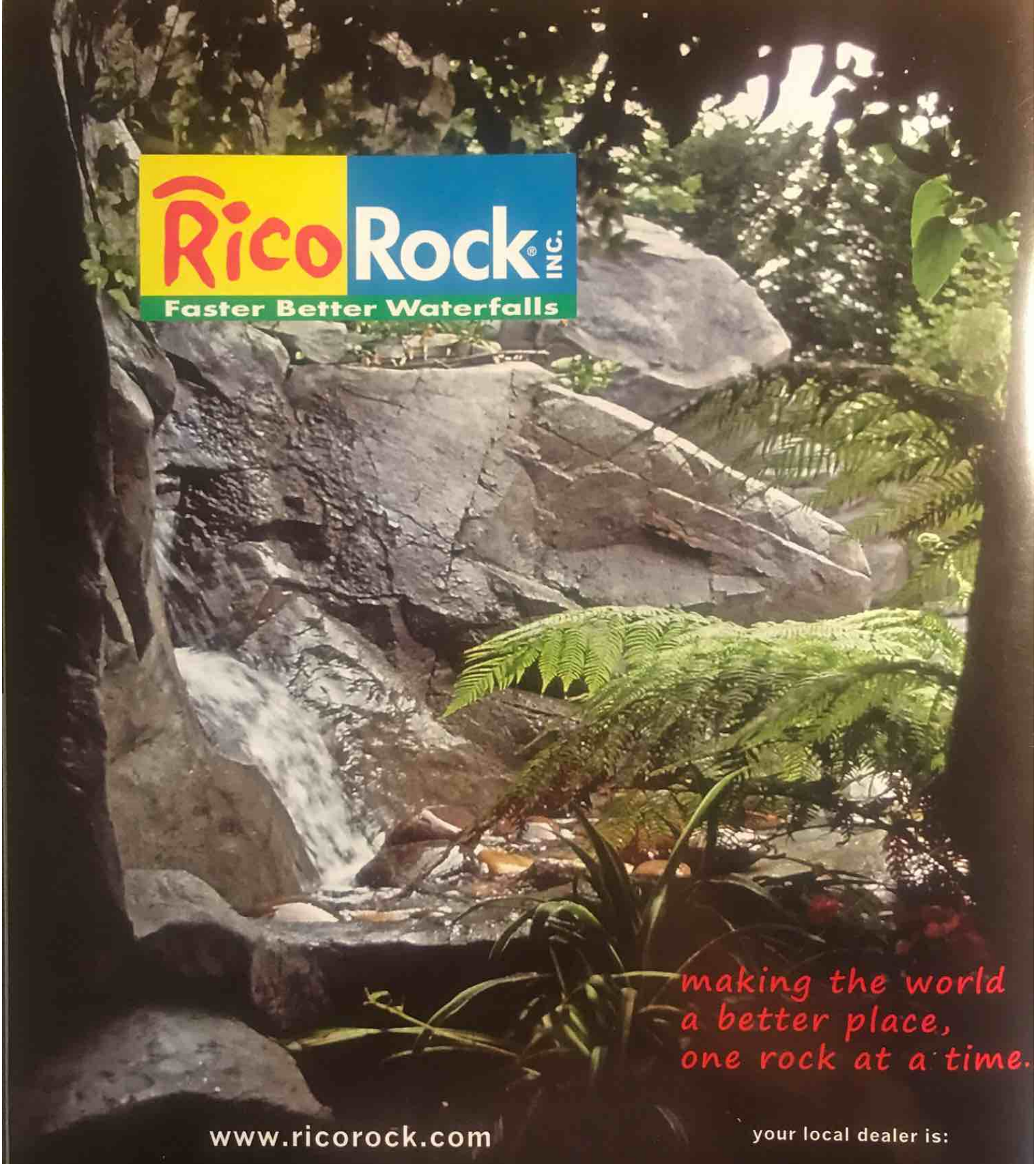

Creative Rock Formations, NC

Fireplace surround, WY.

Jose Escobedo, TX

Cave with artificial wood, UT.

Tom Bench, UT



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