

ArtTraction

Concrete stairs incorporate an artful textured pattern cast into the nose of each tread for slip resistance. - Sean Dunston, *Concrete Jungle Design*



Left: To create a gentle curve, the treads shorten incrementally toward the center tread. The wood railing is supported by steel arms mounted to the central spine of the stairs. The stair treads are bolted to the stringer and cantilever out into space, appearing to float.

There is an LED light unit mounted on the wall every third tread that powers on automatically under low light conditions.

Below: the overlapping rectilinear shapes were inspired by some of the themes in the homes design.

We defy you to go up without looking down. Once again, concrete comes to the rescue when a functional feature (traction) must be incorporated without sacrificing appearance. The unique decorative pattern cast into the concrete steps effectively cements the relationship between form and function. Sean Dunston of Concrete Jungle Design has created a staircase that from a distance appears simple and minimalistic, but up close is filled with intricate detail.





Designer Notes

Sean Dunston
Concrete Jungle Design

Specifications Concrete Staircase

Total Retail Price: \$49,000

Volume: 28.5 cubic feet of concrete

Weight: 3,400 lbs

Concrete Mix: CHENG Pro-Formula Base with 2% CHENG Pro-Formula Sand

Railing:

Steel: Nickolas Ordahl

Architect - Rodwin Architecture, Boulder CO

Interior Design: Eiko Okura, Denver CO

Photography: Molly Danti

Why concrete?

The treads were specified as wood originally, but after the architect and homeowner had seen our interpretation of the concrete design in the kitchen, they decided to give the green light to a reinterpretation of the stairs as well. Concrete gave us the ability to create shapes that couldn't happen as readily with another material and the design collaboration on this project enabled us to max out the potential.

Client Desire

This project entailed two flights of single stringer stairs, with 34 concrete treads becoming incrementally smaller toward the center of each flight, to describe a subtle curve from top to bottom. The client and architect wanted to maintain the wabi sabi treatment of the home's main features, so all the steelwork was left very raw, leaving the mill scale, the grinder marks and exposed welds. The treads have unfilled voids on the vertical planes, and the casting process left a sort of moonscape on the underside of each tread. We made a prototype tread a couple months before fabrication in order to work out the bugs and make sure the clients were going to be happy with the finished product, and determine the effectiveness of the tread pattern.

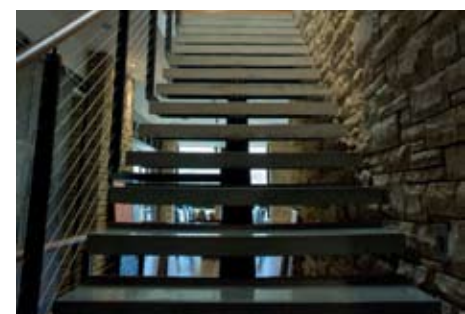
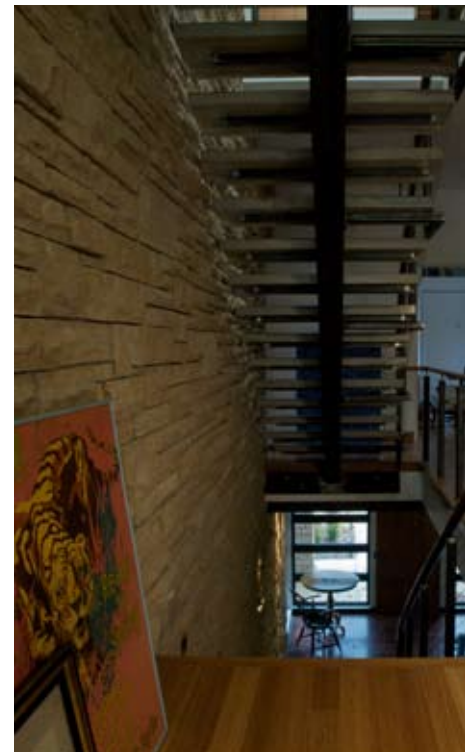
Client Reaction

Both the homeowner and Rodwin Architecture were happy with the completed project. This part of the home's construction in particular was very carefully planned and executed with the intention that they'd have a functional piece of sculpture rising through the core of the house, and we met that challenge.

Timing + Expertise

The textured slip resistance pattern turned out to be quite effective in the sample, so rather than cast a 2" strip of rough texture I had proposed that we create a multiple layer pattern with adhesive film. The pattern consists of several repeating shapes that were layered into the molds by hand to create a unique pattern on each tread.

We played with the overall design for around six months, bouncing computer models back and forth with Rodwin Architecture, the homeowner, the engineer, and the general contractor before we started fabrication, and then some. The fabrication and installation took about a month altogether, but spread out over three months while working around overlapping trades.





Best Functional Feature

concretejungledesign.com

Concrete Jungle and Concrete Jungle Design are located in Colorado Springs Colorado, and serve all of Colorado, or anywhere our work takes us.

Sean Dunston and Cade McKee have won 3 national awards for design and fabrication excellence, and are recognized as one of the best high-end concrete providers in the country.

Concrete Jungle Design was recently honored with an additional 5 national awards for 2009! This is unprecedented in the history of the Design Challenge, and we are grateful to our awesome clients for giving us the chance to show what we can do.



Concrete Jungle Design

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