

Clastic Order

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Reassembly brings together material fragments that have prior values, uses, and histories, into new architectural forms. As a strategy for material reuse at the scale of building, reassembly cultivates a visual and material aesthetic through the unresolved relationship of parts to whole.

Clastic Order is a series of free-standing columns made by combining reclaimed construction debris with post-industrial plastic waste. Produced for the Designing Material Innovation exhibition at the California College of the Arts, the columns are the first full-scale demonstration of our ongoing research on the strategies and aesthetics of reassembly.

The geological term “clastic” describes a type of stone made of older rock fragments, or clasts. Here, familiar fragments of buildings (brick, concrete, glass, pipes, and fittings) are the clasts which mottle the stone-like surface of the columns. Each column is monolithic, fabricated as a continuous cast with a process similar to slip-forming concrete a technique used to cast uninterrupted structures such as building cores, shear walls, and silos. Each column cast begins on the ground in an insulated mold filled with loose material. The plastic is brought to its melting point at which time it binds the inorganic aggregates into a solid mass. The heat sources and formwork are gradually raised as each section is completed, producing continuous full-scale columns

While the classical orders of architecture established mathematical rules of proportion, spacing, and sequence of parts, Clastic Order suggests an approach to design based on material behavior under heat and gravity. By varying the ratios of components in the mixture and the application of heat, a range of colors, textures, and effects is produced across the columns. Since the waste plastics and building debris can be reclaimed locally, the material properties of the resulting casts reflect the composition of regional waste streams.

Clastic Order



The columns stand eleven feet high

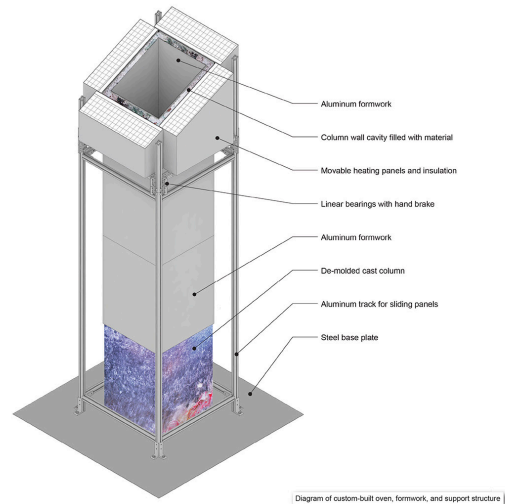


Diagram of custom-built oven, formwork, and support structure



View of the exhibition installation

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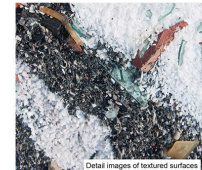
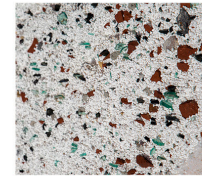
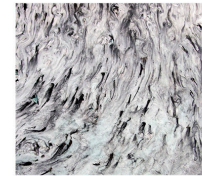
A column installed on site



An example of the raw materials used to make the columns



Custom oven and formwork used to make the columns



Detail images of textured surfaces