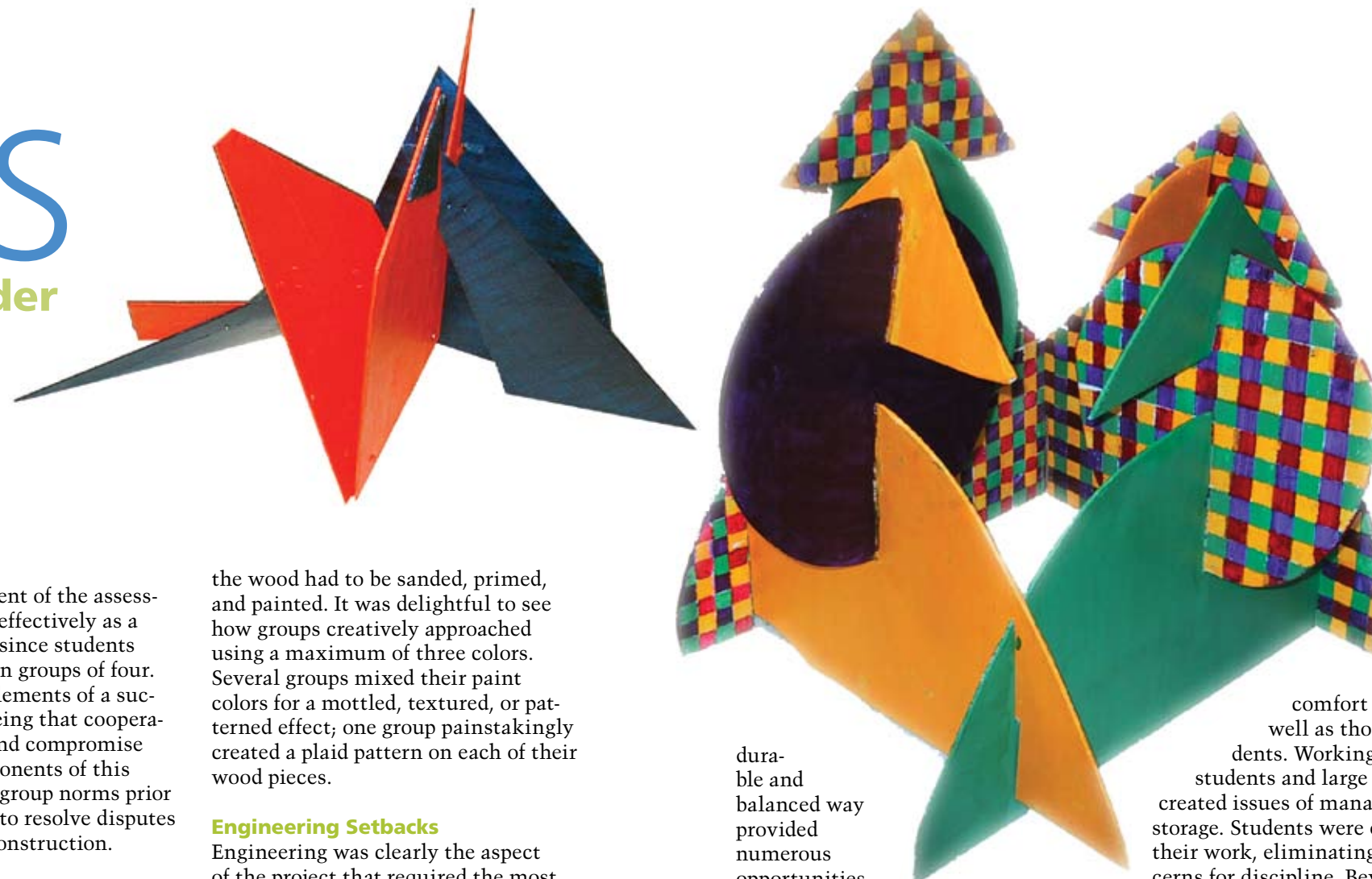


STABILES

Inspired by Alexander Calder

Martha Rives



A trip to Storm King Sculpture Garden in Newburgh, New York, served as inspiration for a unit on the stables of Alexander Calder. As I walked among these artworks, I started to imagine how I could push my students to work on a large scale. I began to form questions about engineering, design, negative space, assemblage, and the artist.

Beginning with a Maquette

My students first worked in pairs to create a maquette—a preliminary, scaled-down, three-dimensional model—out of five random shapes of corrugated cardboard. The sculpture needed to stand solidly, be visually interesting from all sides, and have a maximum of two colors. When these mock-ups were completed, we studied the factors that made them successful.

From this discussion came our vocabulary list and a good beginning to our standards of excellence.

Students stated the importance of providing the illusion of precarious balance; of creating interest on all sides; of combining colors; of using negative space; of artistry and a sense of creativity. One student noted, “When we mixed the angular and geometric shapes we got either round negative spaces or jagged, straight negative spaces that added to our project.” We incorporated these elements of design and performance into our standards of assessment.

Assessment

A crucial requirement of the assessment was working effectively as a member of a group since students would be working in groups of four. We addressed the elements of a successful group, agreeing that cooperation, negotiation, and compromise would be key components of this work. Establishing group norms prior to the work helped to resolve disputes that arose during construction.

Creating Designs to Scale

I showed my students slides of Calder’s works and talked about size, engineering, materials, and themes. Groups were given a design process packet outlining the task,

the assessment rubrics, and reflection questions. Their first task was to grid an 8 x 8" (20 x 20 cm) square

to serve as a design basis, to be blown up to scale onto 4 x 4', ¼" plywood. Students covered their plywood with white Kraft paper and drew a 1' square set of grid-lines.

Construction

After reviewing safety procedures, notifying parents about our use of power tools, and issuing safety goggles, students used jigsaws to cut out their shapes. Once the noisy, messy, and difficult task of cutting was achieved,

the wood had to be sanded, primed, and painted. It was delightful to see how groups creatively approached using a maximum of three colors. Several groups mixed their paint colors for a mottled, textured, or patterned effect; one group painstakingly created a plaid pattern on each of their wood pieces.

Engineering Setbacks

Engineering was clearly the aspect of the project that required the most problem-solving skills. Putting various shapes of plywood together in a

durable and balanced way provided numerous opportunities for frustration and brainstorming. As one group noted, “Our biggest problem was

covering the ugly bolts on the top of the sculpture—also getting the weight evenly balanced.” Students used such techniques as slotting, bolting, corner bracketing, and gluing. The limitations included the size and weight of the pieces, the desired height of the sculpture, the sheer amount of hardware available, and the fact that our single drill bit became quite dull.

Reflecting

Student sculptures were all creative, successful examples of large constructions. We were fortunate to have an empty room to turn into a gallery with lots of white Kraft paper, plat-forms of various heights including tables, cabinets, classroom desks, tall TV/VCR carts, and even an overturned recycling container!

This unit definitely pushed my

comfort limits, as well as those of my students. Working with sixty students and large materials created issues of management and storage. Students were engaged in their work, eliminating most concerns for discipline. Beyond their artistic decisions, students learned to negotiate for artistic considerations and practical concerns; problem-solving

considerations rivaled artistic ones. Students learned that there were times when modifying an idea made sense and abandoning a strategy improved the work.

The fact that their work would become permanent installations focused serious attention on artistry. Our discussions provoked thought and creativity and the results were spectacular! Students were proud of their creations, and I was in awe of their attention to detail. I am already wondering what my students will create next year!👁️

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Vocabulary

maquette: a preliminary, scaled-down 3-D model

scale: the ratio between the size of something and a representation of it

sculpture: a 3-D work of art

stable: an abstract sculpture, similar to a mobile, but attached to a fixed support

NATIONAL STANDARD

Students create artworks that use organizational principles and functions to solve specific visual arts problems.

WEB LINKS

www.skac.org/
www.calder.org/

Student artwork: First page top left, Syracuse; Bottom right, Splatter. This page, top left, Child’s Play; Bottom Left: Fire.

