Many people are surprised to learn that Gregory Kozak not only wrote all the music performed by SCRAP•ARTS•MUSIC, but he invented and created all the instruments as well. Many were made by shaping, bending and welding great-sounding—and looking—salvaged material into musical sculptures. The ensemble refined the innovative techniques used to generate the rich array of sounds and textures that infuse the compositions. SCRAP•ARTS•MUSIC named all of its compositions and instruments. Below are the instrument names, what they are made from, and compositions in which they appear.

**Whorlies** — A composition named after the simple instruments that SCRAP•ARTS•MUSIC uses, Whorlies generate a variety of pitches depending on spin speed and length of bilge hose.

**Conundrum** — This complex drumming number begins with Kozak on his one-of-a-kind, homemade contraption (aka “traps set”); soon after, players with mobile drums of varying design join the action. Instruments include: Mini-Zig Traps set— Invented drum kit created from scrap and spun metals; Ziggurat drums—SCRAP•ARTS•MUSIC’s signature drum with a large drum-head, stepped spun aluminum drum shell that spins in the stand and produces different pitches depending on where it is when struck; Hourglass drums—made of spun aluminum and stainless steel, pivot at the middle, have two drum-heads and create the second highest pitches of the drums; Humunga drums—barrel-shaped, made of spun aluminum, and the lowest pitched, most bass of the mobile drums; B-52 drums—a single-headed drum made from steel oil cans manufactured in 1952, which were cleaned up, put on scrap stainless steel stands and mounted with used Kevlar drum-heads; and Junk-on-a-Stick cymbal trees.

**Ribs** — Ribs features a collection of carefully selected found metal objects, arranged on specially-made tables that amplify the exotic musical sounds the group is able to generate, thanks to their evolved technique. Instruments introduced to the stage include: Sigh-chordions—wind instruments made from plumbing fixtures and accordion reeds, which create chords and single

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**SCARP•ARTS•MUSIC’s inventive repertoire**

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notes; The Ribs—curved stainless steel bars of various lengths; Wooden Table Box Resonators—hollow, rolling tables that act as sound amplifiers; and a variety of found metal, including steel hose couplings and a brass plate.

**Phonk** — *Phonk* begins with two performers striking and tossing coils high in the air, which soon develops into a full-on rhythmic powerhouse. Instruments introduced in this piece include: Alumo-springs—hollow, coiled aluminum and lighter than they look; Scorpion drums—high-pitched drums made from big-O irrigation hose and plumbing coupling joints on stands that can support up to three drums; and Thunder Sheets—flexible brass sheets.

**Delta** — A solo piece featuring the Half Moon—a discarded rock cymbal ground and reused by Kozak to create a rich variety of warm sounds that subtly evoke the blues.

**Magnum Opus for Bowl & Plates** — One by one, musicians come on stage with their own Plate—an aluminum pot-bottom cutaway, each playing a unique rhythm using open and bell tone sounds. Rhythms intertwine then break apart from each other before the Plates are swapped for gong-like Bowls, found at a scrap yard and tuned with a grinder.

**Some Assembly Required** — Like giant building blocks for adults, this composition is built around the bass sounds of the PVC Tower, created from salvaged pipe of varying lengths, which are struck with gym mat paddles created from flooring recycled from a gymnastics club and cut into a ping-pong paddle shape. The composition ends after a rhythmic interchange between PVC and marine exhaust hose, which is a hollow rubber tube formerly used to channel exhaust gases, cut to various lengths.

**Engine of the Future** — *Engine* is a multi-tonal piece that features several of the drum instruments used in a new way to suggest a giant machine. Instruments incorporated in the piece include: Aluminum Rods—found in a dumpster near a metal shop, and Annoy-o-phones—made from dishwasher hose, bagpipe reeds and balloons.

**Artillery Peace** — SCRAP•ARTS•MUSIC tries to make an instrument from material they find at the performance venue. The ubiquitous soda can and bicycle spoke are always easy to find and recycle. *Artillery Peace* begins with the Whirling Can (which the audience is invited to name); Artillery Shells—stainless steel artillery shells chopped to different lengths to create a variety of church-bell-like chimes, and various noisemakers, including plastic venting hose, a bike bell, a suction cup, and a two-by-four.

**Annoyophonia** — The return of the Annoyophone (first seen in *Engine of the Future*), but this time there are five. Poses the question: Why are the simplest instruments the hardest to play?

**Synthesoid Plasmatron** — *Synthesoid Plasmatron* was one of SCRAP•ARTS•MUSIC’s first pieces. It is in an odd time signature and is very physical and energizing to perform. It incorporates all the spun aluminum drums; the Plankophone—a marimba made from wooden planks and legs made from the railing of a building being torn down; the Chime Array—made from scrap stainless steel that supports artillery shell chimes; the Gong Array—made of curly legs from monkey bar “seconds” and large chunks of scrap stainless steel boat railings that support three gongs.

**13 Strings & Sighchordions** — It is perhaps surprising to see what an innovative percussionist can do when he invents a stringed instrument. This composition starts with Kozak on his Mojo—an instrument created from a sailboard mast, steel bowls, balloons, wood, aluminum scraps, and piano bass strings. He is joined by three performers playing numerous Sighchordions and another playing the Nail Cello—a stainless steel plate with rods that are bowed on top of a drum.

**Hip Hop** — A drum solo competition to end all others! Each player struts his stuff.

**Bopchi Bop** — Inspired by Kozak’s boyhood memories of songs his grandmother (“Bopchi”) used to sing to him.

**Agreement** — A highly choreographed piece that debuted at an NBA basketball halftime event.
In the classroom

More Resources

Books for Students and Teachers


DVDs/CDs


Websites
bashthetrash.com
Ideas and information about instruments from trash.

pas.org
Website for the Percussive Arts Society.

vicfirth.com/education/
Educational resources, including video lessons, from the Vic Firth Co., manufacturers of drumsticks and mallets.

epa.gov/students/index.html
Ideas and activities for kids and their teachers from the EPA.

moderndrummer.com/site/category/education/
Lessons and resources from the publishers of Modern Drummer magazine.

Before the Performance

1. Prepare your students to better appreciate the unique construction of the SCRAP•ARTS•MUSIC instruments by familiarizing them with the sound sculptures of François and Bernard Baschet. SCRAP•ARTS•MUSIC suggests researching François and Bernard, whose innovation in instrument-making influenced Gregory Kozak (of SCRAP•ARTS•MUSIC) in the design and fabrication of his instruments. The Baschet brothers identified four specific elements of sound production and stated that all musical instruments feature at least three of these. Ask your students to identify the four elements, as defined by the Baschets. Then have each student choose an instrument he/she has either played or seen played as the subject of a brief paragraph explaining how that instrument features these elements. You may want to direct the students to fr/story.htm as a possible place to begin their research. (1.2) *

2. A few days of paying attention to sounds that everyday objects produce can result in a wide variety of interesting percussion possibilities. The name SCRAP•ARTS•MUSIC derives from the idea that objects not initially purposed for music (scrap, for instance) can become art, which can then become music. Ask your students to be on the lookout (or the “hearout”) for objects that can be shaken or banged or brushed against each other to produce rhythmic sounds. Examples could be clicking pens, pasta packaged in crinkly plastic bags or bottles partly filled with small stones. Name a particular day when your students should begin in their objects. On that day, break the class into groups that will become percussion ensembles. Each group should begin by choosing one from among them to establish a rhythm with the sound of his/her object(s). The other students should layer additional rhythms on top to improvise a jam session. Ask the students to identify which sounds work well together. From the improvisation, the students should create a running order for a two-minute piece of music. This should list the different sounds in the order in which they should be sounded so the two-minute piece can be repeated. With the running order as a guide, ask each group to rehearse and perform its piece for the rest of the class. (1.1, 1.3)

After the Performance

1. Ask your students to interview parents, grandparents or other elders about musicians, bands or orchestras whose music they particularly enjoyed when they were teenagers. Afterward, the students should search the internet to find video or audio of these artists in performance. They should write a descriptive piece comparing the music and performance style of SCRAP•ARTS•MUSIC with that of one of the artists from the past. Which do they prefer? Why? (1.4)

2. Present recycling protocols and options. Break the class into small groups and assign each group a particular item to dispose of or to recycle. Items should represent various categories: electronics, household hazardous waste, automobiles and automotive supplies, compostable items, etc. Students should research options within the immediate vicinity for disposing of or reusing the item. Findings should be presented as a small leaflet (4.25 by 5.5 inches), including the address and contact information for local municipal recycling centers or other entities (charitable organizations, for instance) that will receive and recycle the item. The leaflet should be visually interesting, using brief text and graphics. In addition to protocols for disposal, it should also offer at least one idea for reconfiguring the item for another use. Alternatively, students could create brief musical “jingles” that present their findings and perform these for their fellow students. Hint: The EPA website may be a good place to start the research, particularly the section on “How do I recycle my … ?” (1.1, 1.3)

3. Devise new uses for “scrap” items. Have your students work in small groups to create a new item by reconfiguring and combining items that would otherwise be discarded. Each group should start with a similar set of items to include things like egg cartons, twist ties, plastic bread bags, cardboard rolls, or empty containers from any non-toxic household product (cleaned and dried beforehand). Each group should also have a stapler, paper clips, tape, string, rubber bands, and scissors. The new item should be presented to the class in a brief skit performed by its creators. The skit should depict a scenario in which the item is prominently featured, allowing the audience to determine its purpose and the way it functions for that purpose. (1.1, 1.3)

* Numbers indicate the NJ Core Curriculum Content Standard(s) supported by the activity.