Editor’s Note: A hypertext-enhanced version of this article is available on-line at www.tms.org/pubs/journals/JOM/0310/Byko-0310.html.

INTRODUCTION

In the office he’s William Yerazunis, PhD. On the Junkyard Mega-Wars set, he’s Crash, team captain and self-proclaimed nerd. Yerazunis, who works as a research scientist at Mitsubishi Electric Research Laboratories, is a regular on the The Learning Channel (TLC)’s Junkyard Mega-Wars, a program in which two teams compete to build a vehicle from discarded materials. This show and others like it have become a trend in cable: reality TV with sparks flying, machinery whining, and, on most days, creativity flourishing.

Television audiences are fickle, so the trend may soon go the way of the battling robots that were a cable phenomenon a few years ago. For now, though, viewers can choose from several programs that feature craftsmanship and competition. Along the way, they might learn a bit about science—Yerazunis said his program offers “stealth science”—pick up an idea or two for a new tattoo, and perhaps come to appreciate the skill that goes into creating projects as ordinary as motorcycles or as odd as scrap-metal submarines.

A MONSTER HIT

At the annual meeting of the American Welding Society (AWS) in April, the star was not the laser welding equipment or flashy robotic products. Instead, men in suits and hardhats, young and old, lined up at the ESAB Welding and Cutting Products booth to meet Jesse James, star of the Discovery Channel’s Monster Garage and hero of the welding world. Some brought welding gloves to be signed, others carried their meeting programs. No one seemed bothered by the tattoos covering James’ forearms, the knit cap pulled down over his eyebrows, or the seemingly gruff demeanor.

“For the most part, people put aside whatever prejudices they might have had,” said Rusty Franklin of the American Welding Society. “They were looking at the skill and the accomplishment. It didn’t matter if he had a zillion tattoos, a whole bunch of earrings, and body piercings; from the perspective of welding and joining metals he does relate to the youth of today.”

Jesse James (distantly related to the wild-west outlaw of the same name) was already legendary among motorcycle enthusiasts when he was discovered by Thom Beers, executive producer of Monster Garage. In 2001, Beers wanted to create a special program about custom motorcycle builders and was looking for a star with the right mix of personality and craftsmanship. When
he met James, he stopped looking.

Beers created *Motorcycle Mania* starring James at work in his California shop, West Coast Choppers, where he shapes metal into one-of-a-kind bikes for a client list that includes athletes and celebrities. The program was an instant success. “The numbers were just huge,” Beers said. “In the first one (which was soon followed by *Motorcycle Mania 2*) Jesse hand-built a tank from scratch. When that film aired everyone couldn’t stop talking about it. That’s what told me people are fascinated with real craftsmen.” Beers decided to tap that audience with the *Monster Garage* series (Figure 1). Each week, a group of mechanically inclined people joined James in a garage to convert a conventional vehicle into something new and odd: a sport utility vehicle became a garbage truck; a racecar was changed into a street sweeper (Figure 2). There was a time limit, a budget, and numerous shots of James applying power tools and imagination to the challenge of the week.

The teams were carefully assembled to combine particular abilities. “We usually look for skills associated with each of the builds,” Beers said. “Everybody’s got to have welding skills, everybody’s got to have fabricating skills.” Although college degrees are not necessary for success, problem-solving skills are essential. “Some of the engineering feats are extraordinary,” Beers said.

Again, Beers found a formula with an eager audience and the series in September launched its second season. “Every week we get three million homes that tune in,” he said. “That’s great for cable.” And, it turns out, great for the welding profession.

**BUILDING A BETTER IMAGE**

The creative shows on cable, especially *Monster Garage* and *Junkyard Mega-Wars*, have attracted the kind of attention of which the AWS’s Image of Welding Committee could only have dreamed. The committee was formed several years ago, said Chairman Rusty Franklin, after a media report that welding ranked as one of the ten worst jobs in America.

“There is a perception that welding jobs are not good-paying jobs, they’re not necessarily skilled jobs, they’re dirty,” Franklin said. The committee created television commercials reminding viewers of the value of welding in everyday life, but when cable television programs began to showcase metal crafting, the profession received a publicity boost that was like a gift to the committee. “Those shows portray a very positive image,” Franklin said. “Both those shows demonstrate that even non-welders are fascinated by the skill set of those people and how creative they can be in producing whatever their task is.”

The appeal of shows such as *Monster Garage*, Franklin believes, comes not with the final product, but with the process of creating it, although, as shown in Figure 3, the end results are eye-catching.

As for James himself, “the guy is an incredibly skilled welder,” Franklin said. “He’s driven by his creativity and skill.”

During his appearance at the American Welding Society show, James took time to visit some highly impressed trade-school students who were participating in a welding competition. “He’s an awesome designer and an amazing fabricator,” said Miles Tilley of Ann Arbor, Michigan. Both James and Franklin believe that schools need to place more emphasis on the kinds of skills James was taught in high school shop classes. Both think his popularity could help lure students back into such classes. “I get a lot of e-mails from shop teachers,” James said. The teachers tell him their classes were half full before *Monster Garage* went on the air. “Now, their classes are full,” he said.

Beers said a nonprofit organization is being planned to benefit high school...