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#### Spring 2016

## **Changes in Packaging Impact Recycling**

Walk down the aisle of any grocery store and you are faced with a dizzying array of products and packaging. There are literally thousands of different products that we purchase and use every day. Most products come in some sort of packaging, and, more often than not, the packages will contain plastic.

Protective packaging is a \$22 billion business which continues to evolve. Constant new and innovative packaging design makes things very difficult for the recycling industry. We are witnessing a rapidly changing waste stream, with new, single-use, impossible-to-clean, multimaterial packaging with no end-of-life recycling solutions in sight. Convenience and lower shipping costs seem to be the prime directive, so manufacturers have switched from highly recyclable glass and metal containers to new, durable, lightweight and "fun" plastics. The durability of plastic is the very reason it becomes so

problematic when discarded. Every piece of plastic that has ever been produced still exists somewhere. All too often, those pieces of plastic end up in a will take hundreds of years to break down.
When plastic debris ends up in the oceans of the world, the impacts can cause physical harm and potential chemical hazards to the marine environment.
Humans have been storing food in

landfill or in the environment where they

containers for thousands of years. Food was sold in glass jars for the first time in the 1700s and metal cans in the 1800s. The modern age of food packaging began in 1890 when crackers were first sold in waxed paper sleeves inside a paperboard box. Plastics began to appear during the 1920s and '30s as a result of chemical company experiments during the war effort. Fast forward to 2016, and we are faced with 6,000 different substances that are approved by government agencies to come into contact with food.

Glass bottles and jars have been replaced with plastic containers for products like juice, peanut butter and ketchup. Although plastic bottles and jars are recyclable, most are exported to China and recycled only once. Plastic bottles are processed into polyester fiber for carpet, polar fleece jackets and stuffing for sleeping bags. Glass, on the other hand, can be recycled over and over again with no loss of quality; in theory, the glass from the 1700s still exists as glass today. Glass stays local with strong recycling markets in California.

Highly recyclable metal cans are being edged out in favor of aseptic shelf-stable cartons for products like soup, almond milk and juice. These hybrid (multi-material) cartons contain paper fiber, as well as layers of plastic and aluminum. Multiple layers are part of the reason that cartons are not recyclable in Santa Cruz. Cartons get mixed in with paper which is a problem for us since the local paper mill that buys our mixed paper does not want cartons.

The newest packaging craze is plastic packets and pouches. Apple sauce that once came in a glass jar is now packaged (Continued on Page 4)



#### **Three Recyclability Factors**

- 1. The City of Santa Cruz Resource Recovery Facility was designed and built to accept traditional recyclable materials—bottles, cans, jars, paper and cardboard. It was not designed to accept the steady stream of new, light-weight, plastic packaging that we are seeing today.
- 2. It would take many months to collect enough of these new plastic materials to fill a shipping container. And since many of the new pouches and cartons are difficult to clean, plastic bales waiting months to be shipped could attract pests and produce foul odors.
- 3. Currently, there is no viable end market for these low-grade and hybrid plastic materials. That may change in the future, but for now, if it has no viable market, it won't be collected for recycling.



#### **Tips to Avoid Excess Packaging**

- Choose products with less packaging.
- Carry your own reusable water bottle, coffee mug and shopping bags.Purchase food and beverages in packaging that is easy to recycle, such as
- aluminum cans, glass bottles and paperboard boxes.
- When possible, buy dry goods in bulk and store them in glass jars.Purchase basic ingredients for your meals rather than pre-packaged food.
- Minimize to-go packaging. Dine in the restaurant rather than ordering take-out.
- Shop at your local farmers market to avoid pre-packaged produce.
- Save and reuse plastic bags from produce, bread and cereal.



Bottles and cans are highly recyclable and accepted in Santa Cruz curbside carts.

These containers are hard to recycle and NOT accepted in the Santa Cruz recycling program.

#### Spring 2016

## When trash speaks

Sometimes art shocks us. Sometimes it tells stories. Sometimes it educates us. And often, it does all three. That is especially true of four artists working to transform trash into fine art while exposing the

devastating effects that our trash can have on our environment.

Chris Jordan has spent years documenting America's love affair with stuff. Jordan believes that statistics – and photo collages that represent them - can tell stories about our culture. His first series to focus on waste as a subject was "Intolerable Beauty," which included huge photos of various types of electronic waste. His series, "Running the Numbers," which he began in 2006, featured his signature large-scale

photographs that depict a specific quantity of selected items, such as five minutes of office paper use (15 million sheets), 30 seconds of aluminum can consumption (106,000 cans), five minutes of plastic beverage bottle use (2 million bottles), a day's worth of retired cell phones (426,000 phones just in the U.S.), and an hour of paper grocery bag consumption (1.14 million brown bags).

Jordan writes, "This project visually examines these vast and bizarre measures of our society in large, intricately detailed prints assembled from thousands of smaller photographs." He continues, "My underlying desire is to emphasize the role of the individual in a society that is increasingly enormous, incomprehensible, and overwhelming."

He subsequently continued to explore waste in his art – and specifically waste in our oceans – more closely. His 2009 series, "Midway: Message From the Gyre," displayed the undisturbed bodies of dead birds, bellies full of plastic bottle caps, found lying on the shores of Midway Atoll, a cluster of islands more than 2,000 miles from the nearest continent. Then in 2016, he turned to desert plastic pollution with "Camel Gastrolith," which features plastic bags and shards of plastic, metal, and glass found in the stomach contents of dead camels.

Alejandro Durán is a multimedia artist



who works in photography, installation, and video. His work explores the intersections of humans and nature, particularly points at which the natural world is overwhelmed by the developed world. His series, "Washed



Up: Transforming a Trashed Landscape," looks at plastic pollution from the ocean that washes ashore at Sian Ka'an, Mexico's largest protected reserve, home to the world's second largest barrier reef, and a UNESCO World Heritage site.

Durán writes, "Over the course of this project, I have identified plastic waste from fifty nations on six continents that have washed ashore along the coast of Sian Ka'an. I have used this international debris to create color-based, site-specific sculptures." The installation features brightly colored plastic bottles filling a footpath, soccer balls intermingled with coconuts, and fishing line turned into palm tree roots.

Although a bit surreal, his crafted landscapes are not unlike the scenes we see at real beaches where trash has washed ashore—or rather, returned to shore.

Durán explains his goal, "The resulting photo series depicts a new form of colonization by consumerism, where even undeveloped land is not safe from the farreaching impact of our disposable culture. The alchemy of 'Washed Up' lies not only in converting a trashed landscape, but in the project's potential to raise awareness and change our relationship to consumption and waste."

Working across the globe, in coastal Senegal, photographer Fabrice Monteiro collaborated with costume and fashion designer Doulsy (Jah Gal) and models to create his series, "The Prophecy." The images, which are fantastical, show oversized figures which appear to be djinns, or supernatural creatures, in costumes created with trash and debris mingled with natural objects. The imposing figures rise above humans, emerging from the landscape to issue warnings or perhaps judgments.

Monteiro says of the project, "I imagined stories—like the Earth would be mad and send a representative to talk to the humans and tell them that they have to be aware of what is going on."

Finally, the documentary "Waste Land" follows New York artist Vik Muniz back to his home country of Brazil where he works with pickers who go through the garbage at Brazil's largest landfill to find items to sell. With their cooperation, Muniz turns trash into art. The documentary is available on DVD, on the iTunes store, and through the streaming service Hulu. Learn more at www.WasteLandMovie.com.

# See the work of these artists:

- Chris Jordan: www.ChrisJordan.com
- Alejandro Durán: www.AlejandroDuran.com
- Fabrice Monteiro: http://FabriceMonteiro.viewbook.com/
- Vik Muniz: http://VikMuniz.net/

### Earth Day, Earth Day, Read All About It!



Helping children learn more about the environment this Earth Day is as easy as giving them a book. No matter their age or interest, there's a book out there for kids wanting to learn about or help our world.

For the shopping teenager: *Get Real* by Mara Rockliff. Frank and honest, *Get Real* explains to teenagers issues about our consumer system and how their buying power can influence the environment—hopefully for the better.

For the hopeful middle-schooler: *Not Your Typical Book About the Environment* by Elin Kelsey. The world is not doomed if we do something about it. Kelsey explains to young people what's happening to the world now and how they can not only learn more about it, but can also enact positive change.

For the philanthropic bookworm: *Think...Before You Throw It Away* by Kelsey Rae. In this story, a little girl hears the plea of recyclables thrown in the trash and learns how important children are in changing the way we treat trash.

For the bug-obsessed preschooler: *Noisy Bug Sing-Along* by John Himmelman. See and hear bugs that live in our environment but rarely get to see center stage. Kids can learn which bugs make the noises they hear outside and try to imitate the sounds themselves.

For the hungry poet: *What's in the Garden?* by Marianne Berkes. Rhymes give children just starting to read a chance to learn about food eaten right from the garden. Once the kids complete the short poems, recipes tell them how to make a snack including the star ingredient.

Remember to reuse books. Here are three easy ways:

- 1. Give away or sell old books.
- 2. Buy used books.

3. Borrow books from your local library.

#### Top 20 Things That Are Going, Going, Gone!

- . Typewriters
- Floppy disks
   CDs in the mail (AOL sent out over a billion
- discs from 1995-2006.)
  4. Compact and disposable cameras, as well as film and
- negatives
- 5. Game Boy
- 6. Phone books
- Encyclopedia sets
   Printed dictionaries
- Postcards (Now it's all about "selfies" on
- Instagram.)
- 10. Home phones, landlines and long distance phone calls
- 11. Paper maps and travel guides
- 12. VCRs and VHS tapes
- Cassette tapes and boom boxes
   Calling 411 for information or calling
  - "TIME"



- 15. Newspaper classified ads
- 16. "Blockbuster" and other movie rental stores
- 17. Pay phones
- 18. Answering machines
- 19. Fax machines
- 20. Ash trays

Plastic bitten by fish in the North Atlantic ocean was found during the 5 Gyres SEAChange Expedition.

#### Fast Facts on Microplastics

- Each year, 8 million tons of plastics enter our oceans; that is equivalent to dumping a truckload of plastics into the ocean every minute.
- Plastics in the ocean do not biodegrade, but rather break into smaller and smaller pieces. When combined with microplastics, such as microbeads in personal care products, released directly into waterways, the majority of plastics in the ocean are less than 5 millimeters in size (less than 1/4 inch).
- Microplastics and the chemicals that attach to them in the water can contaminate the food chain, including seafood products eaten by people.
- In 2015, the federal Microbead-Free Waters Act became law. This law requires that companies stop using tiny beads of plastic in personal care products, where they were used as abrasives, by July 2017. Microbeads are commonly used in facial cleansers, toothpaste, and cosmetics.
- Fleece and synthetic clothing shed microplastics into the water with each washing. In fact, a fleece jacket sheds about 2,000 pieces of plastic per washing. Wastewater treatment plants do not have the ability to screen these tiny pieces, meaning they end up in both the discharged water and the sludge that is composted. Learn more in this short video: https://youtu.be/ RMkkYAf18Xk.



#### What can you do to reduce microplastics pollution?

- 1. Avoid products with microbeads before the product ban goes into effect. Look for the words "polyethylene" or
- "polystyrene" on the ingredient label.Wash fleece and other synthetic fabrics less often. This also saves water and energy.
- 3. Don't litter, and pick up the litter you see. Take part in beach and other litter cleanups.
- 4. Close the lids on your trash and recycling cans or carts when you place them at the curb.
- 5. Carry and use reusable shopping bags. Say "no thanks" to single-use plastic bags.

Sources: "The New Plastics Economy: Rethinking the Future of Plastics" (2016), Project MainStream, a collaboration of the World Economic Forum, the Ellen MacArthur Foundation, and McKinsey & Company; "Scientific Evidence Supports a Ban on Microbeads" (2015), Society for Conservation Biology; "From Fleece Jackets to Your Food: The Scary Journey of Microplastics" (2015), National Geographic and Adventurers and Scientists for Conservation



# This is your brain on water

Blue Mind: The Surprising Science That Shows How Being Near, In, On, or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do by Wallace J. Nichols is long of title and wide-ranging in content, making this book difficult to classify. While he fills it with facts and scientific concepts, the author does not hide his true colors; he is a zealot. Nichols' aim is not so much to inform as it is to preach, to spread the good news of what he calls Blue Mind. So, while the facts and science are instructive, the real charm of the book lies in the stories of people Nichols introduces to the reader, along with the quotes he sprinkles amply throughout the text.

Van Curaza is one of the characters Nichols uses to deliver his doctrine. Once a professional surfer, Van fell victim to drug and alcohol abuse. Using the research of others, Nichols describes how the neurochemical mechanisms of addiction and substance

abuse are similar to the gratification surfers enjoy pursuing their pastime. After regaining his own sobriety, Van started Operation Surf to help all kinds of people enjoy the benefits of surfing. His clients include fellow recovering addicts, at-risk youth, the terminally ill and physically disabled, and veterans suffering from PTSD. These are not people who might typically take up such a challenging and demanding activity. But the focus, challenge, camaraderie, and physical demands of the sport leave the participants

feeling calmer and happier after a session. It's a condition surfers describe as being "stoked," and after reading that section, a non-surfer might be motivated to get themselves to a beach and take some lessons. The same is true of Nichols' descriptions of diving and fishing. Page after page bursting with the author's enthusiasm makes you oddly motivated to try something new in or on the water.

The author goes on to describe the familiar hazards of stress in the modern lifestyle. Multi-tasking and constant distractions leave people jittery and unable to focus. In addition to affecting their health, it affects their ability to create. Nichols offers Blue Mind as a path to mindfulness, that state where people are actively noticing new things. Activities in or on the water, even proximity to water, is offered as the most expedient path to a renewed state. As evidence, he describes WALLACE J. NICHOLS FOREWORD BY CELINE COUSTEAU

BLUE MIND

The Surprising Science That Shows How Being Near, In, On, or Under Water Can Make You Happier, Healthier, More Connected, and Better at What You Do





how many writers, painters, and poets have drawn inspiration from the water. Creative people impact how others perceive, think about, and feel about their experiences, their surroundings, and their life. Nichols states, "After all, what is creativity but a form of optimism that there is more that can be done?" There is creativity in all professions. People often return from a cruise, a fishing trip, a weekend at the lake, a trip to the beach, or even a walk

j. Nichols b

along a creek with a better attitude and renewed productivity in their jobs—Blue Mind at work again.

In later chapters, the author connects the dots that bring people from feeling better to feeling compassion and improving their behavior. He offers evidence of "mirror neurons" at work; the same parts of the brain are activated watching someone do a task as are employed in performing that task oneself. This is the physical mechanism upon which empathy is built. What Nichols presents is that a water environment brings us many benefits to mitigate the negatives of modern life. One of those benefits is an increased sense of peace and connectedness to others. If we have pleasant memories of certain places which bring us happiness, we will act to protect those places from harm. In this way, the rush one feels catching a wave or a fish instills concern for our oceans, lakes, and rivers.

# What's New?

Check out the new Recycle Right! videos on the City website. You can find out exactly what's recyclable in your curbside recycle cart and what's not. The short videos are divided into different materials, so if you have questions about metal recycling, glass or plastic bags, you can watch that segment. Be informed and recycle



right in Santa Cruz. Go to: www.cityofsantacruz.com/recycleright.

Visit the City of Santa Cruz Recycling Center this summer! Learn firsthand what happens to your recyclables and get answers to your recycling questions. Tours are scheduled for the third Friday of the month in June, July, and August, from 10 to 11:30 a.m. Call 421-5591 to reserve your spot.



### **GARAGE SALE WEEKEND**



The City-wide spring garage sale weekend will be held on June 4–5. Whether you are a UCSC student moving on or a City resident doing a bit of spring cleaning, this is the sale for you. The City sponsors garage sale weekend to promote reuse in our community. For more information go to www.cityofsantacruz.com/garagesales or call 420-5591.



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#### Changes in Packaging ... (Continued from Page 1)

in a kid-friendly, squeezable plastic pouch. Plastic pouches may also hold yogurt, rice, soup, coffee beans, cat food and snack foods. Pouches are made up of polyester, aluminum foil, polyethylene, Mylar and more, plus added spouts, caps, straws or zipping mechanisms of various other types of plastic. This packaging is almost impossible to clean and difficult to recycle. If you and your kids love squeezable snack pouches, there is a reusable "kindness pouch" available from Squooshi<sup>TM</sup>.

Have you ever noticed a number on the bottom of a plastic container? The plastic industry started the coding system in 1988 with numbers 1-7. They placed the number inside the chasing arrows "recycle" symbol to help the recycling industry. Unfortunately, the plan backfired because the number does not guarantee that the container can be recycled; it only indicates the type of resin that the plastic container is made from. One non-recyclable plastic is polystyrene (PS), which is plastic resin code #6. Meat and eggs are two products commonly found in foam trays and cartons which are not recyclable. Polystyrene plastic can be a bit tricky, since not all of it is expanded foam. Sushi trays and most to-go coffee cup lids don't look like the white foam that we associate with polystyrene, but they are and, therefore, cannot be recycled.

Another prolific and problematic

packaging material is clamshell and blister packaging-those plastic shells that cover new toys and other products and the clear, hinged boxes that hold deli foods and produce. Clamshell packaging, which is designed for single-use and has practically no value in the recycling market, is therefore destined for the landfill. Most "clamshells" are made out of PET (plastic resin code #1)—a highly recyclable plastic. However, clamshells are produced from a process known as "thermoforming," which changes the composition of the PET, making them different from PET plastic bottles, which are blow molded. This slight difference makes clamshells undesirable for most plastic buyers, thus making them not worth collecting for many recyclers, including the City of Santa Cruz.

Packaging can be beneficial in that it protects a product, but the minute you get home from the store, how much of the packaging you just bought goes directly into the trash? The Environmental Protection Agency (EPA) estimates that containers and packaging make up one-third of the total solid waste stream in the United States and only about 2 percent gets recycled. According to Stanford University, "We discard our own weight in packaging every 30-40 days." So choose wisely in the grocery store and think about what happens to all of the packaging when you are finished with the products that they contain. Select items with less packaging or recyclable packaging whenever possible.

## Mark Your Calendar for Bulky Item Pickup Day

Large, broken items are difficult to dispose of. Think about precycling when you shop for a new appliance, mattress or couch. Stores often offer a take-back service. When they make home deliveries, they will remove the old, broken item that you are replacing. Or take advantage of Bulky Item Pickup Day. If you have an old refrigerator, washing machine, couch, television or



other bulky item that you wish to get rid of, schedule a pickup. The City of Santa Cruz Appliance and Bulky Item Pickup date is Saturday, June 25. To receive this service, you must be a City resident. Call Customer Service at 420-5220 between June 6 and 23 to schedule a pickup. This is a great time to use the free service tags that you received in the mail with your Refuse and Recycling newsletter at the beginning of the year.

### **Bye Bye Mattresses**

Fifteen to twenty million mattresses are disposed of each year in the United States. Eighty percent of the material in mattresses has the potential to be recycled into useful products. California passed the Used Mattress Recovery and Recycling Act in

2013. The Mattress Recycling Council (MRC) is the product stewardship organization tapped to implement the statewide mattress recycling program, known as Bye Bye Mattress. The program's primary goals are to increase mattress recycling opportunities and decrease the impacts of illegal dumping. The City of Santa Cruz is now part of the new mattress recycling program. City residents can deliver mattresses and box springs to the Resource Recovery Facility FREE of charge. There is a limit of five mattresses and/or box springs per visit. The City is not providing a free pickup service for mattresses. As in the past, residents may call Customer Service at 420-5220 to schedule and pay for a special pickup or use Bulky Item Pickup Day on June 25.

Please note: Businesses and large producers are not eligible for this program. Santa Cruz businesses may recycle mattresses and box springs at the Resource Recovery Facility for a fee of \$12 each or free of charge when delivered to the



