



Trashmagination Podcast #54 – Playgrounds from Recycled Materials

Welcome to Trashmagination, a podcast about reimagining trash. I'm Carla Brown.

This week's episode is about playgrounds made from recycled materials. Even if you don't have kids, playgrounds can be a great case study in creative reuse. Playgrounds are something everyone understands and they are open-ended enough to make you feel free to innovate. I teach innovation methods and one of the first exercises in my class involves designing a playground that has not ever been built in the world. People see how they can design a completely new playground, and then apply those same methods to their own products and services.

I think everyone should care about playgrounds because they are a great indicator of a community's health. When a playground is unusual, it's a sign that somebody wanted that community to be special. If playgrounds are busy, it means people feel safe going there. So playgrounds are interesting to anyone who wants to live in a vital community.

About 10 years ago, my family set a goal of visiting lots of playgrounds. The organization Kaboom was making a website called the Map of Play [<https://mapofplay.kaboom.org/>]. They asked people to photograph and rate playgrounds. We visited about 150 playgrounds that year. My kids were 3 and 5 years old. When we went to Scotland for my brother's wedding, we visited playgrounds. To prepare for the trip, we used Google Earth to virtually walk along the streets to find playgrounds. Throughout the year, we would drive from one playground to another, stay as long as the kids wanted to stay, and have picnics. Most playgrounds looked the same with big chunks of plastic and metal. We became playground experts and when we encountered an unusual playground, it was a big deal. So let's get started!

Playgrounds Made from Recycled Tires

If you search for recycled playgrounds, tires are the most popular material you will see in the results. There was a trend of cutting up old tires into "tire crumbs" and using them as mulch, but people raised concerns that these tire crumbs might be releasing carcinogenic chemicals, especially when playgrounds get very hot. In February 2016, the United States government announced a research plan to study tire crumbs. [<https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Crumb-Rubber-Safety-Information-Center>]. The study said that more study is needed and initial findings raise significant concerns. So for now, I would not build playgrounds with those tire crumbs. Tires are used to build many playground structures, such as swings, climbing hills and rocking horses. But that study on tires makes me wonder if they should be used in playgrounds at all. I hope there will be more study on this topic.

Playgrounds Made from Waste Wood

The next material used in creative reuse playgrounds is waste wood such as from wood pallets or giant wooden spools. Assuming the builders are using wood that are not treated with chemicals, this could be a great idea. I mentioned the creative reuse artist Thomas Dambo many times before. He builds wonderful play structures from wood pallets. Also from Denmark, the company Monstrum designs playgrounds from sustainable timber [<http://monstrum.dk/en/>] – not waste wood – but their designs are truly inspiring if you wanted to build one from waste wood. Both Thomas and Monstrum build huge animals mostly as their theme, but also trees, trolls and magical worlds.

Another playground idea made from recycled wood is a swing made from a recycled skateboard. Often the skateboard is low to the ground and the expectation is that the child would stand on the board rather than sit on it [<http://mothersarah.blogspot.com/2012/01/skate-board-swing.html>].

Playgrounds Made from Plastic Bottles

Now let's talk about playgrounds from plastic bottles. Ruganzu Bruno makes playgrounds from plastic bottles and other trash [<http://www.tedcity2.org/awards/recycled-amusement/>]. He started a group called Eco Art Uganda [<https://www.facebook.com/ecoartuganda/>] which connected creative reuse artists from across Uganda. Bruno was orphaned at a young age and his playgrounds are huge community building projects. His playgrounds are very cool. For example, they built a helicopter on wheels where the kids climb up into the helicopter and get pushed around for a ride. The outside of the helicopter is covered with colorful plastic caps. Ruganza noted that in Kampala, which is a slum, there is not usually a permanent place for a playground, so they sometimes make playgrounds like this helicopter that can move from place to place as space is available.

Here's a fun idea for creative reuse of plastic bottles at a playground. In Crete, an architecture firm called Kollektivemind made a giant Light Bright game by putting colorful plastic bottles in a chain link fence [<https://popupcity.net/2100-plastic-bottles-make-a-great-intervention/>]. Some folks might not be familiar with Light Bright, but it was a toy popular when I was a kid which involved putting clear plastic pegs into a light-up board.

Another fun play toy at playgrounds made from plastic bottles is when kids can build a marble run from plastic bottles and funnels. The kids line up the plastic items and then drop a marble at the top and it goes kerplunk kerplunk down through their design. They learn a lot about physics from this actually.

Playgrounds from Cardboard

If you search for "cardboard playground," the most common results involve small slides or playhouses for toddlers. In the show notes, I'll share a video showing how to make a slide from cardboard.

Sometimes people make mazes by connecting large boxes. In 2015, the Denver Public Library built a maze from cardboard boxes which they called it the Harry Potter Triwizard Tournament maze [<http://www.alsc.ala.org/blog/2015/11/an-a-maze-ing-library-experience/>]. It was 75 feet long, 25 feet wide and 6 feet tall. The crests for the four Hogwarts houses were hidden in the maze.

There is a movement called Boxwars that started in Australia. This event is only for adults, but who said playgrounds cannot be for adults? People build complex structures from cardboard that they can wear, and then they attack each other and destroy everything [<http://www.boxwars.net/>]. It's not clear how much of the cardboard is recycled, but hopefully some! People build costumes that look like jets or medieval armor. They also build structures that look like aircraft carriers, or tanks, or chariots – every kind of vehicle used in battle.

Playgrounds from Recycled Water Tanks

There is a design firm from Spain which I admire called Basurama – which is a play-on-words for the word "basura" which means trash and basurama means "trash love" – it's a bit like the Spanish version of Trashmagination. They do lots of incredible creative reuse projects like making a giant elephant from recycled cardboard tubes where people rolled up messages and put it inside the tubes.

They like to use whatever materials are found locally so when they went to Taiwan, they found there were lots of huge water tanks that needed recycling. They made a playground that was up for two months as part of a project called Re-Crete Taipei. They cut the tanks and then arranged them in a labyrinth. Inside each tank, they put items to climb and discover like pink pompoms, bubble wrap, textured foam etc.

Playgrounds from Fiber (Fabric, Rope and Yarn)

My favorite fiber-based playgrounds are made by an artist in my home province of Nova Scotia. Toshiko Horiuchi MacAdam crochets playgrounds. These playgrounds are not made from recycled fibers. They use new nylon cord and metal armature to hang the playgrounds in public spaces. But it inspires me to imagine a playground could be made with recycled fibers. To see video of her playgrounds, check out the show notes.

Here's another fiber-based play idea. I just learned about knitted or crocheted water balloons. Regular water balloons are made from plastic and we know they look like jellyfish – so if you are concerned about the environment, you want to avoid them. However, a water balloon fight on a hot day is a lot of fun. So now here is a solution. These knitted or crocheted water balloons just look like little bags. You soak them in water and start tossing. When the game is over, you wash & dry them. You don't have to search through the grass for hundreds of pieces of broken balloons and risk wildlife or small children from choking on them. If you don't knit or crochet, many artists sell them on Etsy.

- Crocheted water balloon pattern - <https://www.leftinknots.com/home/2016/7/12/crochet-water-balloons>
- Etsy - reusable water balloons - <https://www.etsy.com/listing/533327948/reusable-water-balloons-4812162024-packs>

Playgrounds Where Creative Reuse is the Purpose

There is a theory in early childhood education called the theory of loose parts, and it says that kids like to gather objects and manipulate them [<https://extension.psu.edu/programs/betterkidcare/early-care/tip-pages/all/loose-parts-what-does-this-mean/>]. So what if kids could build their own playgrounds from recycled materials?

The Adventure Playground at the Berkeley Marina was opened in 1979 [<https://www.cityofberkeley.info/adventureplayground/>]. Children play and build on forts, boats and towers that were designed by other kids. They are encouraged to hammer, saw and paint. They can use hoses to make mud. There's another Adventure Playground in New York City on Governor's Island [<https://www.facebook.com/newamericandream/videos/10155623675733728/>].

These playgrounds are also found in the United Kingdom. There is one in London called Glamis Adventure Playground [<http://shadwellcommunityproject.org/playground/>] and one in Wales called The Land which is featured in the movie *Play Free* [<http://playfreemovie.com/about/>].

The Free Range Playground in Denver, Colorado is a version of these Adventure Playgrounds that is slightly different because it doesn't currently have a permanent home. Volunteers bring items like tires, cardboard boxes and tubes, buckets and tools [<http://www.freerangeplayground.org/>] to a big space for something like a pop-up playground. They are held at family events. They put up caution tape around to keep the parents out, and then put all the stuff in the middle and let the kids go for it.

The challenge with these play spaces is that from the outside, they can look messy and maybe even dangerous to some people. They are supervised but not too intensely. But I think they sound fantastic and wish we had encountered one when my kids were small! I especially love how the kids build on to the previous kids' work.

Thank you!

Thank you for listening! I hope you got some ideas for your own backyard playground or for a community project! You might have noticed that some innovative playgrounds were only available for a few months, often as museum exhibits. Not all playgrounds must last for years. When playgrounds last for a shorter time, it might open up more options for creative reuse of more diverse materials.

I would love to hear about any playgrounds that incorporate recycled materials at trashmagination@gmail.com. I gathered many of these ideas on a Pinterest board about playgrounds made from recycled materials [<https://www.pinterest.com/Trashmagination/playgrounds-from-recycled-materials/>] as a resource for you.

Until next time – may you see playgrounds as a great place to creatively reuse materials!