Colors that Matter

by Elvin Yüzügüllü, D.Sc.*

How do you make life more colorful? Well, depending on who you talk to, you'll probably get a smorgasbord of answers.

Let me take you on a "colorful" journey!

Picture this...

A company that truly cares, and not just about its customers, but also its staff, community, and the environment.

A nonprofit that brings together a community of leaders from all generations, dedicated to collectively creating the "big green shift" towards a sustainable planet.

An artist, an engineer, and an environmentalist...who walk into a bar... Just kidding! They actually like hanging out by a polluted river.

Four generations of individuals, taking bold initiatives to create positive change.

So what do all these individuals and groups have in common? **Creativity** and a passion for **sustainability!**

Manufacturer of artist-grade oil paints, <u>Gamblin Artist Colors</u> of Portland, Oregon, was busy not only formulating and mixing their luscious paints, but also actively engaging with their customers and community on social media (you know, what marketing gurus keep encouraging us to do). All over their Facebook and Instagram pages, you could see posts about how excited they were to announce that their <u>Reclaimed Earth Colors</u> were ba--aa--ck!

Having gone down the rabbit hole of immersing myself in the intoxicating appeal of playing with colors--and turning my dining room into an art studio in the process (can't throw any dinner parties during our socially-distanced pandemic life anyway)--I came across these social media posts by Gamblin.

Meanwhile, I was collaborating with <u>Leaders in Energy</u> on the planning for an exciting year-end event, pondering on creative approaches to carry the camaraderie and cheers of the typically in-person event to an online platform (you know, the pandemic, the year 2020...).

You see, each year, Leaders in Energy hosts a celebration of the transformational initiatives and innovations that dedicated leaders from various generations have accomplished. Affectionately dubbed the <u>Four Gen Awards</u> (a.k.a. Four Generations of Leaders in Clean Energy and Sustainability Solutions Awards), this year-end celebration highlights how we can create not only technical, but also cost-effective and socially-balanced solutions for the benefit of our planet and our communities.

The 2020 theme was "Regenerating for a Positive Future," and highlighted achievements by generations spanning from baby boomers through Gen Z. And as a special honor, Peter Seidel--author of <u>Uncommon Sense: Shortcomings of the Human Mind for Handling Big-Picture, Long-Term Challenges</u>--was recognized via a lifetime achievement award.

So the "aha" moment came when I read the mind-bending story of Gamblin's Reclaimed Earth Colors. They were turning toxic sludge from polluted rivers into beautiful paint in a tube! And creating a quirky shade of grey from all of the pigments collected in air filtration systems. Even finding creative ways of generating less or no waste from all their processes. In creating beautiful, quality oil paint, they were going the extra mile...and a half...to make sure that they left the lightest possible footprint on our planet.

What if we designed the Four Gen award plaques to incorporate Gamblin's oil paints? Instead of a piece of paper or yet another item that might be forgotten, how about if we created a piece of art? Showcase Gamblin's beautiful colors with a story, while adding a little color and joy to each awardee's life?

Excited about the possibilities, I contacted Gamblin, expressing how the Four Gen theme of *regeneration* aligned perfectly with their Reclaimed Earth Colors initiative, as it aids in regenerating the local ecosystem. And how all their considerations for the environment and contributing to a circular economy of reuse/waste management also resonated with the Leaders in Energy community. We wanted to make awards more personalized and unique, while showcasing Gamblin's commitment to sustainability and adding a little color to people's lives! Gamblin agreed, and became one of the sponsors of the Four Gen event.

And in a short few days, the postman delivered me a lovely box full of all sorts of goodies from Gamblin--their famous set of Reclaimed Earth Colors and many other paints and mediums.



As giddy as a kid with new toys, I started pondering the possibilities... I wanted to make each piece unique to the awardee, while using as many of the gorgeous colors as possible. Four generations...different individuals but connected by their passion to make the Earth a better place to live. Our beautiful planet...alive through the four elements of water, air, earth, and fire. That's it; each generation could be represented by an element! But then, which generation gets which element?

The more I thought about it, the more I realized that there was a perfect fit. Baby boomers--earth. Stable and resilient like the land we live and depend on. Gen X--water. Born in the 20th century, living in the 21st, can take the shape of whatever situation it's put in. Millennials--air. Born at the turn of a century, in the middle of changing times, fluent and flexible like the winds. Gen Z--fire. In our ever-intensifying times, they're "on fire," always at the forefront in the good fight. And how about our lifetime achievement awardee? Well, it was only fitting to include all the elements!





So, what exactly is all this hype about the Reclaimed Earth Colors?

Think the Industrial Revolution. We need energy...yay, we've got lots of coal! But oops, we didn't think about when it rains... Rainwater travels underground, into those coal mines, gets laden with toxic heavy metals, and finds its way back to streams and rivers. And we weren't the best housekeepers either—thousands of square miles of mines abandoned, improperly sealed. Picture this--the Ohio and Mississippi Rivers, not blue but in shades of red, orange, and yellow. Why? Because metals in the water have oxidized, creating a toxic sludge (a.k.a. acid mine drainage). It's not a matter of just being ugly to look at...this stuff is toxic,

damaging and ending the livelihood of living beings in these ecosystems.

Enter the creativity, passion for sustainability, and collaboration of a diverse group of individuals--artist <u>John Sabraw</u>, engineer <u>Guy Riefler</u>, environmentalist <u>Michelle Shively</u>, and a

team of students at Ohio University—and you've got the recipe for cleaning our rivers while also producing pigments for paint! Add magic (or some chemicals and oxygen) into a tank and watch the dissolved iron turn into crystals, settling to the bottom. Collect the settled crystals, dry, and heat treat to produce three new pigments--rust red, iron violet, and brown ochre. Non-toxic and lightfast (you know, your gorgeous painting won't fade away years later when fans visit the gallery to view). And all that separated water? Now nice and clean, it's returned back to our rivers. The fish are happy!

In 2018, the first batch of paint was created with these reclaimed pigments. The team then started a Kickstarter campaign to reach enough funding to scale the project up to a pilot plant-level. Artists from all over the world got all excited, and the project team dreamt even bigger—as big as a full-scale facility that could treat and transform a million gallons of toxic sludge a day! The Ohio Department of Natural Resources joined the cause, helping draft a proposal for the pilot plant. With enough grant money received, by 2019, 1.4 million gallons of polluted water could now be treated by the True Pigments facility to produce over 5,000 lbs of pigments every single day!





Oh, and Gamblin is bumping up the cool factor by donating 20% of sales from the Reclaimed Earth paint sets back to the cause, and partnering with American Easel (another Oregon-based company) to create packaging for the paints sans plastic. A primed wood panel is used as the packaging, providing for an instant surface to paint on!

Create awesome, quality paint? Check! Cleanup our rivers? Check! Create lots of local jobs? Check!

The Reclaimed Earth Colors aren't the only quirky colors in Gamblin's line. <u>Torrit Grey</u> was a hue born out of the creative vision of Gamblin back in the 1990s.

Pigments...produced from a variety of organic or inorganic material...the core of all colors. Mixed with different binders to create oils, watercolors, acrylics, etc. But while being handled in dry form, those tiny pigment particles flowing in the air can pose significant health risks to folks working in paint production facilities, so air filtration systems are used to collect them. But what happens when the filters have reached capacity? Just dump them in the landf—no, wait, just

think outside of the (filtration) box! All that stuff captured by the filters...aren't those just the mischievous few that escaped from the hands of the color elves? So why not add a bit of linseed oil and turn back into oil paint? And what color do you get when you mix all colors? Grey...or, Torrit Grey, to be specific! Varying from a medium dove grey to a dark earth grey, this color is never the exact same hue, as it reflects the unique mix of pigments collected in the filtration system every year.

Worker health protected? Check! Our planet protected? Check! Artists happy? Check!

Meanwhile, as the color elves at Gamblin are hard at work mixing pigments with linseed oil, and enthusiastically filling the resulting luscious oil paint into those shiny little tubes, little mishaps happen in that excitement. "Oops, dropped it...yikes, the machine wasn't aligned!" A few dents here and there...or the label wasn't quite perfectly placed. But unscrew the cap, squeeze some of that creamy ultramarine blue, that alizarin crimson, or that cobalt violet on to your palette, and the passionate, shrewd artist would still know that it's the same high-quality Gamblin paint that they love.

Don't judge a book by its cover, they say...so why should we judge a paint by its perfectly imperfect, quirky tube? In the "produce-use-throw away" linear culture of our society, unfortunately many retailers reject such little imperfections, just because it doesn't look good on the outside. So Gamblin sells these imperfect tubes at rock-bottom prices. Customers happy?

Check!

There's still hope for a better environment when creativity and a passion for sustainability is involved.

#gamblincolors #reclaimedearth #torritgrey #LE4GEN #LECONNECT

^{*} Dr. Elvin Yüzügüllü is in the process of starting her own business called "Full STEAM Communications" where she is bringing together her technical expertise as an environmental engineer in clean energy and sustainability with her creativity in art and copywriting. She is also the author of the book, Synergies for Sustainable Energy by Artech House Power Engineering.