COMMUNITY APPROACHES TO THE CLIMATE CRISIS



When Love Ignites a Creative-Waste Revolution

By Rob Mies with Cara Judea Alhadeff, Ph.D.

In early 2018, my career took an unexpected turn and I was looking for a way to start a new life. I had spent the past 25 years as a conservation biologist and was now prepared to live closer to my environmental convictions and ethical beliefs. I wanted to direct my life path away from mainstream over-consumption society; I wanted to re-envision my life with love and compassion that would extend to my every decision and action.

I was ready to build a new life, and then I met Cara...

Cara was already living her ethics—never owning a house, a car, even a smart phone or credit card. She was looking for someone who shared the same deep understanding of caring for ourselves, our community, and our ecosystem. We met while she and her son, Zazu, were living at Ithaca EcoVillage. Based on her book on climate justice, Zazu Dreams: Between the Scarab and the Dung Beetle, A Cautionary Fable for the Anthropocene Era, Cara had organized a series of science and storytelling panels. (Little did I know that one day soon we would be performing together about living our ethics.) She invited me to share my perspective on creative eco-conscious collaboration. We found that we shared our ecologically-inspired passions (along with so many interwoven layers of being in the world), and fell madly in love.

Cara and I, along with our three kids, were ready to take on an exciting challenge: merge our families and create a home from all discarded/reclaimed/repurposed materials. Our adventure turned out to be wildly successful, and all was completed in only 30 days! Even though utopia translates as "no-where," we knew we were going to manifest the impossible and together electrify our mini-utopia!

Our 210 square-foot tiny home began with a 2004 International diesel school bus destined for the junk yard. The Delphi Community School Corporation retired the bus with only 119,159 miles due to decreased student population in their rural Indiana area. I called the lead bus driver to discuss the details of the auctioned vehicle and was told that the bus was in great shape, but most likely someone would buy it only to remove the engine and

scrap the rest of the bus. That night, we won the auction, spending \$3,500 (compared to \$85,000 new) for a 66-passenger school bus that would soon become our home. Motivated by connecting our hearts with our actions, we knew it was time to put our values and passion to work!

The first challenge was to pick up the giant vehicle that was four hours from Pontiac, Michigan where we had recently finished renovating a 99-year-old dilapidated house in an historic neighborhood. So that we didn't have to drive two vehicles to pick up the bus, I arranged for a family-owned hitch installation business near Delphi, Indiana to pick up the bus and install a tow package under the back bumper. Once that was finished, I rented a vehicle tow trailer and set off to pick up the bus. The real fun was had when I hooked up the trailer to



Photos courtesy of Rob Mies and Cara Judea Alhadeff











the bus, drove my car onto the tow trailer, and set off for home—the first time I ever drove a bus! Mac, our eight-year-old rescued goldendoodle, was on board to keep me company. Our fluffy mascot goes everywhere with us—his gentle lovingness was a big part of our restoration process. Mac was, however, not keen on the bus drive, passing most of the evening nervously pacing the narrow bus aisle and staring out the front glass door as the world sped by at 50-65 mph.

Once the bus was in our driveway, it was time to get to work. Step one was to remove all the seats—sounds easy but it turned out to be an entire day of hard work. Each seat was bolted into the frame six times (three through the floor, and three through a side rail under the windows). Many of the bolts were rusted and broke in the process of removal. Others took immense effort to loosen, and some

would only come out by cutting and grinding. This was actually fun using the angle grinder with sparks flying!

Cara and I were deeply committed to repurposing everything possible that we removed from the bus. We brainstormed daily how each of our actions could grow from a symbiotic relationship to our natural environment. We placed two of the 22 bus seats outside the bus for use as a kids' reading area, and later Cara turned them into a yoga prop to do "headless headstands." The other 20 bus seats were donated to a motorcycle clubhouse in Detroit. We worked tirelessly to remove the plywood flooring and were able to salvage all non-rotten pieces for use in lining our aging open trailer. We removed bulky plastic covers above each side of the windows that housed long bundles of electrical wires. Most of the wires were removed since we didn't need them for driving a converted bus. We later used the wires to tie in the solar panels, connect the batteries, and hook up the DC mini-refrigerator. Screws, washers, and various other hardware were used in the construction process as needed. We traded the heaters to friends in exchange for their assistance removing the seats.

Now that the school bus was gutted, the real fun began.

Cara and I have spent endless hours exploring how we could embody our dreams; how our actions could align with the laws of nature; how we could build from our hearts—lots of drawings, lots of lists, lots of funky ideas. We stayed up late scouring the internet for free stuff or goodies we could barter, and although we were baffled and dismayed (to say the least) how so many items could be on their way to landfill, we were delighted to find most of what we needed for our bus conversion: cedar and pine 2"x4"

and 4"x4" boards used to ship factory machinery from Asia to Detroit were to be used for framing the subfloor, walls, counters, outdoor table, and solar supports on the roof, pine 1"x6", 1"x10", and 1"x12" boards were used as the subfloor, wall covering, shelves spanning above all side windows, and counter covering, closed-cell foam insulation 2" thick salvaged from a warehouse being demolished was installed under the subfloor and behind the side walls, weathered cedar 1" and 2" thick boards previously hottub covering and children's treehouse were installed as insulation and accent above the doors and dashboard, and we used wool Army blankets for insulation and seasonal window coverings. We were so grateful for all of these materials, and put them to use in a compassionate way that felt ethically balanced.

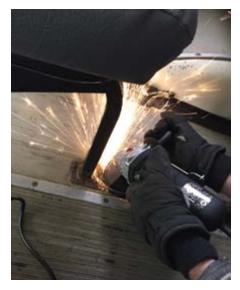
We connected with other school bus-conversion enthusiasts online via chat rooms and blogs by people who were in the process of converting their vehicle into a living space or had already done so. Most were simply using traditional methods of building and acquiring materials (big box store mentality and reality). Since Cara and I were committed to ecologically-ethical building, we questioned each process and looked for alternatives at every opportunity. We brainstormed how to obtain and reuse scrap and discarded materials from industrial and consumer waste; and, fortunately found videos online that detailed ways to use them—offering us more designing and constructing ideas.

While we were thrilled to find so many building materials for free, installation took an unexpected turn—freezing rain, snow, ice, stomach flu! Toward the beginning of our 30-day process, the whole family was stricken by several days of illness. This was a very frustrating time. At the same time, cold fronts came down from Canada bringing frigid weather. The bus, of course, was not heated, but we were determined! Layers of long underwear, sweaters, wool hats, insulated gloves, and thick jackets kept the momentum going. We tracked down unwanted billboard graphics and repurposed them as giant 45-foot-long tarps to cover our materials and makeshift workshop, and also to protect the bus from leakage.

We acquired 250 square feet of 1"x4" oak flooring. A young couple had bought a house

to remodel and decided that they wanted all the wood floors to match, thus listing "free hardwood floors; pick up immediately or it will go to the dumpster." Cara and I sprung into action and spent a week prying up the oak flooring, removing hundreds of 3" nails, and cutting and reinstalling over our bus's reused foam insulation and pine subfloor. Another great find was 1" thick granite countertop that was being given away from a recent kitchen remodeling job. I learned to cut the incredibly hard material with a used diamond blade attached to my father-in-law's circular saw. The process was deafeningly loud and unbearably dusty. In the end, the granite served as a beautiful hearth around our used woodburning stove and gorgeous countertops. As rustic accents around the hearth, on the front of counters, and along shelving, we recouped century-old wood lath from the historic house we had previously renovated for barter.

Although we couldn't find everything we needed for free, we discovered that lightly used items were significantly less expensive. Reused items like a four-burner stove, stainless steel sink, oil lamps, and











propane tanks were 10-20 percent of the retail cost. We found a Jotul 602N (best-selling woodburning stove in the world) for only \$300 (\$1,600 new) that would heat our tiny home with ease, and a 3.3 square-foot AC/DC Norcold refrigerator for \$70 (\$1,200 new) to keep our food fresh, and six 100-watt solar panels and four deep cell batteries for \$700 (\$3,500 new) to run the refrigerator on DC power. We mounted the solar panels on wood framing that is attached to the roof and the batteries are housed in the outside luggage compartment on the driver's side. We brought these unwanted items into our loving home and repurposed them with attentive hands and hearts.

Everyday Zazu spent many hours helping with the bus conversion. He was seven years old at the time, and we were homeschooling him. Building our home spurred an amazing hands-on opportunity to teach him about co-responsibility and living wisdom. We called the learning opportunity "Adventures in Ideas; Adventures in Action." The word educate means "to draw out." Our bus-to-home transformation began with curiosity, and further built on body confidence and creative experiments. We taught Zazu how to question, think relationally, research ideas, and problem-solve using unexpected or unusual challenges—like not having electricity in our home. Our topics of study included math, chemistry, art, geography, history, current affairs, writing, reading, creative visualization, inquiry-based challenges, and much more. We explored how to live with a sense of playful responsibility through deep empathy.

Each morning, we explained the daily plan that included demolition using crowbars, picking up reclaimed materials, designing furniture, measuring and cutting pine and oak boards, installing floors using hammers and drills, etc. On the weekends, my teenage daughters, Georgia (18) and Madison (16), helped with home construction and teaching Zazu. With our whole family inspired, our love and energy emanated throughout the spirit of our co-creation.

At the end of each day, we reviewed what had been accomplished with a series of questions—What did we do today? What did we learn? What questions do you have? For example, if we used a circular saw we asked how does it work? Where does the power come from? What are other options or different choices we could have made? Another series of questions came from the materials we used—Where do the objects come from? Are any of the materials toxic to humans and/or the ecosystem? What are the pros and cons of buying new and reusing? To answer these questions, we spent time reading old encyclopedias, library books, and talking to many other activists, educators, and adventurers. The concept of embodied energy was central to how we encouraged Zazu to explore his imagination.

constraints, a lot of tiny-home owners need to get rid of their previous furniture. We figured out how to creatively reuse much of our own personal items. These included handmade cedar log furniture I crafted over the past two decades (queen-size bed, sixdrawer dresser, coffee table/kitchen table). For additional insulation, we reused rugs, curtains, blankets, etc. that we had acquired over the years at swaps. Also, we used a lot of the materials from the deconstructed bus to reconstruct it. So that everything wouldn't go flying when we eventually hit the road, we secured the furniture to the bus walls and floor using repurposed heavy-duty seat brackets taken from the bus seats.

> In the end, we spent about \$2,000 for all materials needed to create our tiny home. If we had gone the traditional route

Although caulk, plumbing supplies,

and a toilet seat were purchased from

resale shops like Habitat for Humanity, and the tankless water heater and non-

electronic wood stove fan were bought online "slightly damaged" but still in good

working condition, we did have to buy a

few new items that just weren't available

to reclaim: rust sealer and construction-

grade screws and nails from the small local

hardware store, and chimney pieces that

were available only from a specialty shop.

foot house to a home just over 200 square

feet. We had bartered a ton of our stuff for

other people's used items. Because of spatial

We were downsizing from a 900-square-











Number 187 • Summer 2020 Communities 42











of buying all new, materials would have been around \$20,000. Not only is repurposing materials economically beneficial, it is also ethically responsible and ecologically necessary for our shared vision of living lightly in our world. We set out to create a loving home rooted in justice and connected to the laws of nature and we succeeded—in only 30 days!

We relocated our tiny home to the forested mountains of western North Carolina, living in an off-grid ecovillage with about 100 other people looking to share lifestyles that have the potential to live in harmony with the land. The only power we consume is from the used solar panels for our used mini-fridge and charging batteries. Our Jotul keeps us warm during the winter. We find downed trees to cut up for firewood and we cook on the propane stove and wood-burning stove. We use a beautiful outhouse constructed from maple and pine saplings we needed to cut down for our home site.

Our revitalization project was about love and redefining productivity. No longer do I gauge productivity on the num-

ber of meetings, emails answered, phone calls made, conferences attended, grants written, or reports submitted. Now I celebrate books read, trails explored, organic meals prepared, and connections with friends and loved ones. When I revisited my family in Metro Detroit this past spring, one of my sisters asked, "When will you get tired of camping?" My answer: "Never!"

Our life practice isn't about a short-term experiment. It is about a deep capacity for creative cooperation; integrating and living our ethics, teaching our children, and being an example for other people looking for alternative ways to energize their lives and inspire a home.

For Cara's side of this story, please see **Permaculture Love Story, A Dung Beetle's Perspective** by Cara Judea Alhadeff, Ph.D., posted at helenzuman.com/love-story-a-dung-beetles-perspective-guest-essay-by-cara-judea-alhadeff-phd.

Wildlife ecologist and international educator Rob Mies currently crafts handmade furniture in his new business: Menagerie Woodworking. He creates his art through the micro-hydro-powered artist cooperative at Earthaven Ecovillage in North Carolina. With his partner, Cara Judea Alhadeff, their son, Zazu, and their bat-service life-long-companion goldendoodle, Mac, Rob and his family built and live in their converted school bus using only repurposed materials. See www.furnituremagician.com, www.carajudea.com, www.zazudreams.com.

Dr. Cara Judea Alhadeff has published dozens of books and essays on environmental justice, spirituality, philosophy, performance-studies, and ethnic studies journals/anthologies. In numerous museum collections, her photographs/performances have been defended by freedom-of-speech organizations. Former professor at UC Santa Cruz and Global Center for Advanced Studies, Alhadeff teaches, performs, and parents a creative-zero-waste life.