

Observer

Natural Hazards



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July 2015

Art and Disaster



USING ART TO HEAL INVISIBLE WOUNDS
By Gwen Vogel Mitchell

EXPRESSION AND HEALING
By Meg Bourne Hulsey

THE MISSION OF THE NATURAL HAZARDS CENTER is to advance and communicate knowledge on hazards mitigation and disaster preparedness, response, and recovery. Using an all-hazards and interdisciplinary framework, the Center fosters information sharing and integration of activities among researchers, practitioners, and policy makers from around the world; supports and conducts research; and provides educational opportunities for the next generation of hazards scholars and professionals. The Natural Hazards Center is funded through a National Science Foundation grant and supplemented by contributions from a consortium of federal agencies and nonprofit organizations dedicated to reducing vulnerability to disasters.

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WELCOME to the July 2015 issue of the *Natural Hazards Observer*. I think this is a stunning issue, and I hope you'll share my wonderment for the words and images in the pages that follow.

The focus of this issue is art in the face of disaster—as a form of creative expression, as a pathway to healing, and as a means for contributing to community. Although this is the first time so many contributions in the *Observer* have been dedicated to this topic, I hope it will not be the last.

For many centuries, artists have served as commentators on and chroniclers of disaster, war, famine, disease, and other forms of crisis. As you will see in the subsequent pages, contemporary artists continue this tradition by depicting the all-too-real, as well as the surreal, elements of the hazards and disasters that increasingly mark our lives.

The artists whose work is featured in this issue vividly capture, through their words and their art, what captivates so many who work in this particular field: disasters can be simultaneously beautiful and utterly destructive; terrifying and awe-inspiring; devastating and healing. Disasters may represent an end, but also a new beginning. They are somehow all at once all of these things, and so much more.

The artists featured in this issue—including Eyal Gever, Stephanie Peters, and Tricia Courtney—use various mediums and approaches to pay homage to the complexity and chaos that so often accompanies disaster. Their work does not offer us answers to the questions that disasters raise, but instead invites us in to explore the forces that may also simultaneously remind us of our strength and our fragility in the context of natural extremes, technological accidents, and terror.

This *Observer* also contains two feature articles by two women who understand the power of art when it comes to healing. In reading the pieces by Meg Bourne Hulsey and Gwen Mitchell, I was struck by the differences in their narratives, but even more so, the similarities.

Bourne Hulsey, founder and CEO of Art Feeds, is based in Joplin, Missouri, in the heart of the Midwest. Mitchell, a clinical psychologist, writes of her deployment half a world away in Nigeria with Medicines Sans Frontiers/Doctors Without Borders. Bourne Hulsey and her team expanded Art Feeds to include more disaster-focused lessons for children after a natural disaster devastated her hometown of Joplin. Mitchell and her collaborators worked with children and adults who had witnessed brutal attacks inflicted by fellow human beings.

There are surely many other differences, but I was most inspired by the common commitment, the compassion, and the clarity of focus that Bourne Hulsey and Mitchell bring to their work. At the center of it all is not just the belief, but also the empirical reality, that art can heal the wounded. Bourne Hulsey and Mitchell each describe moments when they encouraged young people to take the lead in sharing their respective visions for the future of their communities and their lives in the aftermath of terrible tragedy. For Bourne Hulsey it was when they invited

children, through the Rebuild Joplin project, to use large boxes to create and ultimately construct the community they wanted. At the end of a six-week intervention, Mitchell and her team of local counselors facilitated an opportunity for children to display their art through mobile exhibits.

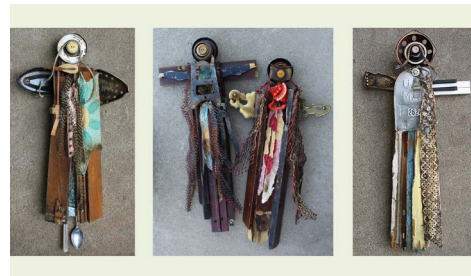
Over the last decade, various initiatives aimed at bringing art to a broader public have grown across the United States and globally. You may have seen the “Art Everywhere” campaign or slogans such as “Art is for Everyone.” After reading this month’s *Observer*, I’m more convinced than ever that art is, indeed, for everyone. And art may be especially important for children and adults in the aftermath of seemingly unbearable trauma. Art can obviously empower disaster survivors to take control of their thoughts, their feelings, and their narratives, and thus to begin the long process of recovery.

In closing, I wanted to offer a sincere and heartfelt congratulations to your talented and endlessly creative *Observer* editor, Elke Weesjes. She and her husband Danny recently welcomed their own little work of art wonder into the world. As such, Elke was briefly on maternity “leave” (those are meant to be exceptionally heavy quotation marks, as Elke dedicated countless hours to this issue in the time leading up to and directly following the birth of her first child) and asked me to write this editorial.

So let me end this by offering thanks to Elke for this issue, and a wish for each of the readers: Enjoy your *Observer*.

Lori Peek, Colorado State University

On the Cover



On May 22, 2011, an EF5 multiple-vortex tornado struck Joplin, Missouri. In the aftermath of this devastating disaster, mixed media artist Tricia Courtney began to collect the tornado debris that was scattered everywhere. She used it to create Angels of Joplin, a series of assemblage sculptures. She has made and sold hundreds of angels and donated the proceeds for tornado relief.

EXPRESSION AND HEALING

By Meg Bourne Hulsey



I CAN SAY with great certainty that the scariest moment of my life was May 22, 2011, as I climbed through my Joplin, Missouri, neighborhood shortly after the tornado. I say “climbed” because it’s the most accurate description—I literally had to climb over and through debris. There were cars in trees. Trees in houses. Ambulance sirens and the most horrible smell. It was as if every building had been shredded like paper, ripped to pieces. Structures that seemed strong had crumbled into nothing. Where my neighborhood once stood there were only piles of sticks, rubble, and trees. The only way I could identify my house was by the one standing wall that was the color of my living room.

I found my neighbor and dear friend, Amy, crying out desperately for her two children, Jack and Kayley, 4 and 7. These were the same children that left their small bikes in our yard and knocked lightly on the door early Saturday mornings asking if we could come play. Now they had vanished. I hugged Amy and while crying she said: “We will find them, but they aren’t here. They aren’t here.” They weren’t here, but where were they? We lifted up marred walls and crawled into a decimated basement, both hopeful and terrified of what we would find underneath.

Elsewhere in the neighborhood a woman was searching for her daughter, who had spent the night at a slumber party across the street from me. This seemingly random event was echoed by a million other sickening moments just like it. Where were the children whom I knew and loved? And where were all the children in Joplin whom I didn’t know? Were they safe? Were they alive? As we searched for my neighbor’s children I resolved that if we found them alive I would do everything in my power to help them heal using the tool I was most familiar with—art.

In early 2009 I founded Art Feeds, which provided children with free therapeutic art and creative education that prompted students to draw, dance, paint, and sculpt. The curriculum was designed to facilitate expression and build creative capacity. Later this approach gave our organization the footing to be instrumental in students’ mental and emotional well-being following the disaster. Students needed a platform for healing after the trauma they had faced. Before the storm the organization was focused primarily on students with behavioral disorders, special needs, as well as on at-risk and marginalized students. We reached 200 to 500 children per week before the tornado, but all of our strategies changed in its aftermath.

ACCESS FOR ALL

Sixteen days after the tornado hit we increased our program from 200 to 300 students per week to 2,000 students. This achievement grew by 40 percent each school year until, by 2013, every child in Joplin Elementary Schools—5,050 children in total—received access to the program.

The first night after the tornado I decided Art Feeds programming would no longer be only for marginalized children but for all the children in Joplin who needed

help coping with the trauma they had faced. Indeed, the trauma affected all students—whether they had lost their homes, a loved one, or were simply disturbed by the city-wide wreckage. The shift from focus groups to the entire student body created the structure that our programming follows to this day.

Art Feeds programming is unique, as it reaches students in school, during the school day, and in interplay with curriculum. The in-school programming reaches students where they are and allows easy access to expression and creativity where they can begin the healing process. This eliminates barriers commonly seen in after-school or before-school programming. The programs are all-inclusive and free, so no child is ever barred from the program due to lack of money or transportation. We have formed strong



Above: In the Restore Joplin project, students designed new buildings for their community then got to create their designs out of refrigerator boxes. This image is of Irving Elementary, the student’s school that had been destroyed.

Cover Page: A volunteer helps little artist paint the first ever student designed mural at the student’s temporary school in Joplin MO. This mural beautified their space as they waited for 2 years for the school to be rebuilt.



Meredith Allendorph, an Art Feeds intern, works with Grant on a sensory project in Joplin MO.



Meg leading the students of Estes Park in a super hero oath at the end of a the Heroes lesson from the Trauma Response Curriculum



Art Feeds provides every student with an art pack, a bag that has all the essential supplies for creating. These students are drawing in their sketchbooks, which are used by educators to track expression and creativity progress in Joplin MO.

relationships with the students and have made consistent progress in our benchmark goals to decrease fear, stress and anxiety, increase self-efficacy, increase resiliency and grow creative capacities. We do this by reaching students on a consistent and sustainable basis.

Art Feeds does not take class time from other subjects. Rather, it works in partnership with the school to enhance the learning experience with various forms of art and interactive learning. Typically, Art Feeds staff and volunteers set up in a common area in the school and each class filters into the common area for 30 minutes of instruction and activity. This occurs one day per week so that strong and ongoing relationships are formed between students and educators and ultimately create an environment in which students feel free and safe to express themselves.

At first, we found funding through Art Feeds social media presence, where our first major organizational grants were online voting competitions through avenues such as Vh1's Do Something Awards, Chase Community Giving, and State Farm Neighborhood Assist. Young people are very active on social media, so we leveraged our online platform to make a difference. Once Joplin realized the impact our programming was making in the community post-disaster, funding came through the Joplin Recovery Fund, Community Foundation of the Ozarks, peer-to-peer fundraising platforms and even in the form of in-kind donations from shows such as Extreme Makeover: Home Edition, which gifted us with a Mobile Art Center. Each of these grants and donation sources also gave us a unique platform to tell our story on a nationwide scale and would allow us to later expand our programming to other trauma affected communities.

REBUILD JOPLIN

As part of the healing program we created a variety of projects that encouraged students to express their feelings, grow resiliency, and heal. Rebuild Joplin is a good example; we encouraged the students to rebuild the town in their own way, beginning with drafts of new buildings in their sketchbooks. They went wild recreating the things they loved—favorite pizza places, neighborhood parks, etc. They redesigned integral parts of the community, as well, only better. For instance, the Mercy Hospital that they re-imagined had a waterslide for patients to be discharged. A skyscraper apartment building offered free housing for all the families who had lost homes. We then took this project a step further by gathering 50 boxes the sizes of refrigerators and stoves, which we used to make 3D scale models of the students' drawings. The end result was a brand new Joplin. We set up in a schoolyard and the children ran and giggled through the new town that they had designed by themselves.

REACHING CHILDREN BEYOND JOPLIN

Although the tornado isn't the reason we formed Art Feeds, and our focus isn't solely disaster communities, the Joplin tornado gave us an opportunity to reach children community-wide and to see the need for and impact on every child, regardless of their respective challenges. Since then we have continued to reach children with full school programming in 16 schools and three children's organizations in Joplin while also reaching other communities affected by disasters.

We developed a curriculum called Trauma Response. It includes 12 lessons that begin the expressive and healing process with students. In the event of a disaster, Art Feeds can offer the curriculum and an art supply pack to traumatized students. In the past three years our Trauma Response curriculum has been used in Oceanside, New Jersey, after Hurricane Sandy; in Moore, Oklahoma, following an EF5 tornado; and in Estes Park, Colorado, which experienced major flooding. More than 2,000 children who experienced disaster outside of Joplin have participated in the program since 2012.

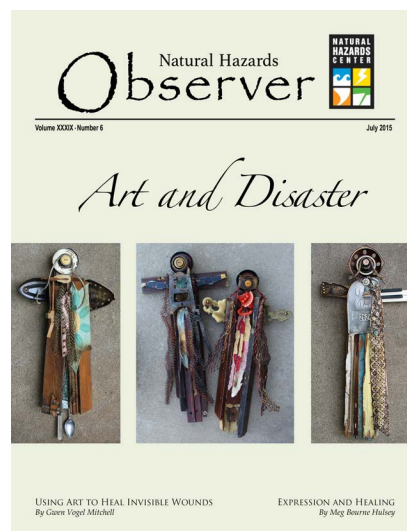
The night of the Joplin tornado when we shifted to all access programming we didn't intend to become a disaster-response organization. We recognized that the mental and emotional well-being of our community hinged on the health of the children, and that was enough of an incentive to act. Our talents were recognized and they became a catalyst to benefit thousands of children in communities nationwide for years to come—something we wouldn't have dared to ask for but are proud to harness.



Author

At age 19 in 2009, Meg Bourne Hulsey created Art Feeds, to feed creative development and facilitate emotional expression in children. On May 22, 2011

Bourne Hulsey's life changed forever, when at one of the largest tornadoes in America's history ripped through her hometown of Joplin, Missouri. Art Feeds programs were needed in Joplin more than ever before and scaled rapidly in response to the need of traumatized children. Bourne Hulsey has now worked with over 3,000 volunteers and 24,000 children providing free therapeutic art and creative education in over 6 communities and 21 schools. She believes that all children are creative, innovative, and imaginative artists. She was awarded the Missouri Arts Award in Arts Education 2014, was a finalist on VH1's 2012 Do Something Awards, represented 1 of 25 causes nationwide honored in NBC's 2012 American Giving Awards, was featured on *Extreme Makeover: Home Edition*, *New York Times*, *Huffington Post*, *Forbes*, *AXS TV*, *HuffPost Live*, *Teen Vogue*, and *Fast Company*.



Call for Submissions

The *Observer* invites readers to submit items of interest for publication in upcoming issues. The *Observer* is undergoing a makeover and many more exciting changes are in the pipeline. Throughout this process we would love to hear from you. All comments and suggestions are welcome.

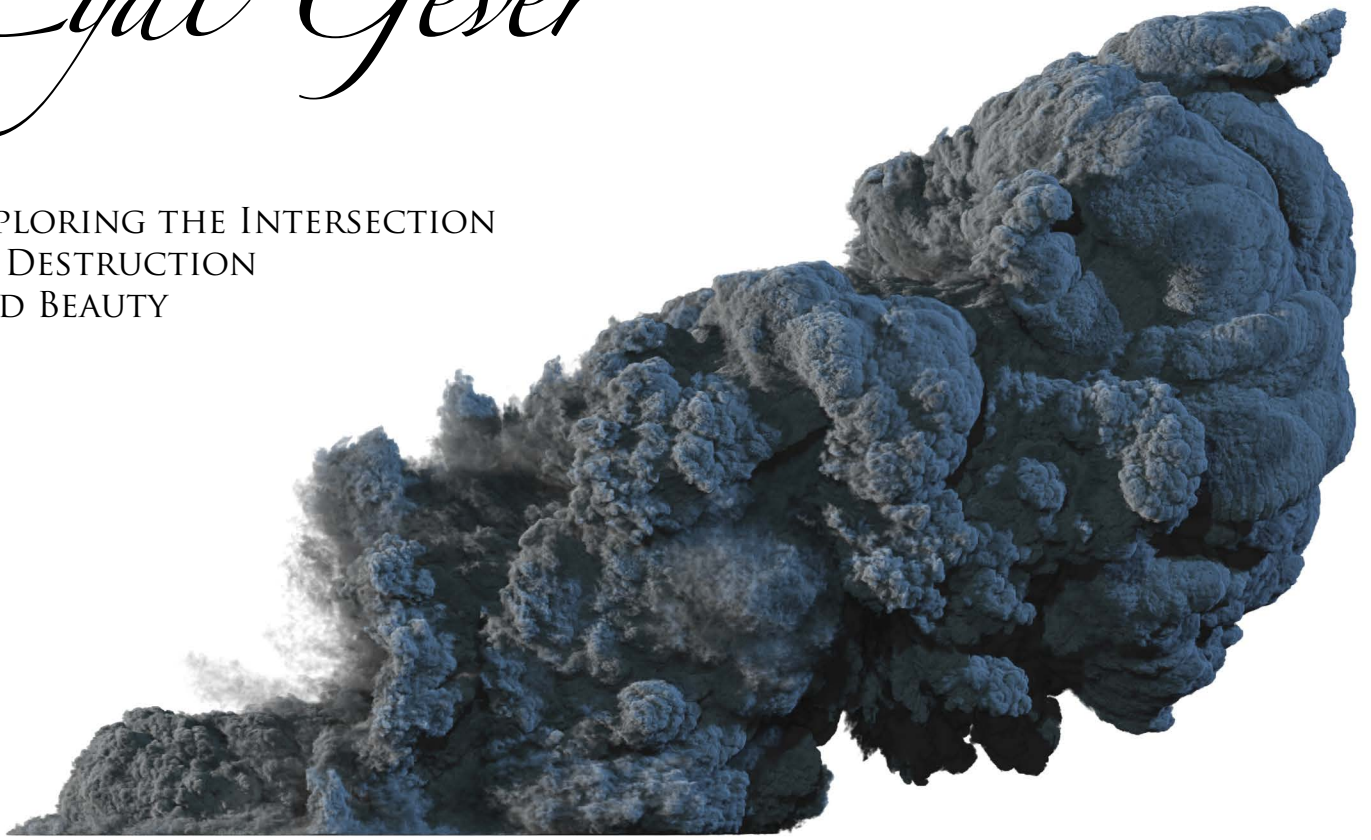
Our mission is to close the gap between scientists, policy makers, and practitioners by providing coverage of disaster issues, recent disaster management and education programs, hazards research, political and policy developments, resources and Web sites, upcoming conferences, and recent publications. We are looking for papers and field reports that help narrow the aforementioned divide. In addition we are looking for book reviews that contribute to the debates and discussions in the field of disaster research.

The deadline for the next issue of the *Observer* is August 1, 2015.

Items of interest can be sent to
Elke Weesjes
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Eyal Gever

EXPLORING THE INTERSECTION
OF DESTRUCTION
AND BEAUTY



*Large Scale Smoke, 2012,
Artist Eyal Gever*

INFLUENCED BY THE DESTRUCTIVE forces in our environment, Israeli programmer and digital artist Eyal Gever creates sculptures based on moments that fill the viewer with awe, terror, astonishment, amazement, or silence. He is fascinated by cataclysmic extremes, uncontrollable power, and unpredictability: forces that serve as reminders of the constant fragility of human life. Using his own proprietary 3D animation software, Gever, who lives in Tel Aviv, has developed computational models for physical simulation, computer animation, and geometric modeling. His work—recreations of devastating scenarios, from oil spills to volcano eruptions—explores the intersection of destruction and beauty, and captures catastrophic situations as cathartic experiences.

In his work, Gever marries his two greatest passions: art and programming. He was introduced to the latter while serving in the Israel Defense Forces' Central Computing System Unit in the early 1990s. Here he specialized in advanced programming applications and was tasked with crafting electronic simulations to calculate the effects of explosions, collisions, and other devastating events.

After completing his compulsory military service in 1992 and a stint at Israeli Educational Television, Gever spent two years at Jerusalem's Betzael Academy of Art

and Design. While in college, he founded his own digital arts company, Zapa, a startup that let customers create their own avatars. The company was later renamed Gizmoz. Gever soon became a figurehead for the emerging Internet generation and was able to collaborate with the most influential people in the IT industry.

MUNDANE TO SUBLIME

Throughout the nineties, Gever's career went from strength to strength. Unfortunately, just when he was about to sell Zapa, in the spring of 2001, the dot.com bubble burst. And then came the September 11 attacks. Gever and his wife were living in New York City at the time.

"What struck me most—and I've tried to get this across in my art—is the intriguing interface between the mundane and the totally unexpected," Gever said in an email. "So, for example, you'll be in a totally normal setting, in my case on September 11, I was in the gym with my wife, Sharon, and something completely out of the ordinary happened."

Gever was astounded by the terror and beauty he witnessed that day.

"I will never forget the epically terrible beauty of the



Splash Peak Oil, 2012,
Artist Eyal Gever

deadly dust clouds roaring through downtown Manhattan,” Gever explained. “In the midst of an entirely innocent-seeming day, something entirely ‘other’ took place, and when it happened, I witnessed a sublime moment, a moment of beauty in the midst of a catastrophic event.” Immediately after the attacks, Gever began to design a product more tangible than code. He decided to channel the skills he had learned in the army into his art.

Since then, Gever, together with an international group of programmers, mathematicians, and physicists, has been building mathematical models of man-made and natural disasters. Once they complete a model, Gever runs the results through the computer. In search of the sublime moment, he interrupts the model and transfers the image for 3D printing.

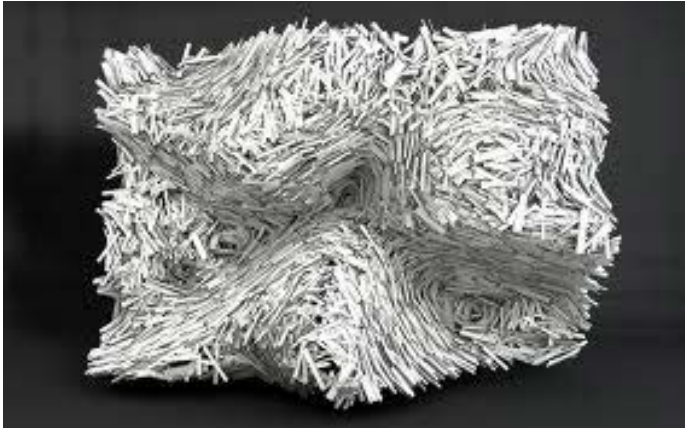
BEYOND FEAR

Gever is not interested in recreating a real disaster. Nor does he want to create memorials of real events. “I leave the connotations to the viewer,” Gever said. “I will show you crashes of rectangles that your brain will connote to things you’ve seen in the news, but for someone else it’s just shapes crashing.”

Gever relates his unique perspective on disasters to his outlook on life. He explained that he lives his life as if every day could be catastrophic, but he doesn’t let fear control him.

“I don’t know if it’s my army special operations/combat training experience or the fact that I grew up in a holocaust-traumatized small family of survivors,” Gever said. “But I accept the fact that every day can either be the day everything changes, or it can be my last day.”

Combining the horrifying and the beautiful is something that many artists before him have attempted, most notably the Vanitas painters who, during the early Renaissance created symbolic content meant to remind viewers of their relatively short life. In these paintings overtly macabre items such as human skulls were placed in juxtaposition to luxury items and other objects of fleeting beauty or pleasure. In a way, Gever’s art does the same—albeit in a less moralistic form. By freezing a devastating yet esthetically pleasing moment, he reminds us of the fragility of human life and illuminates the strength of the destructive forces in our environment.

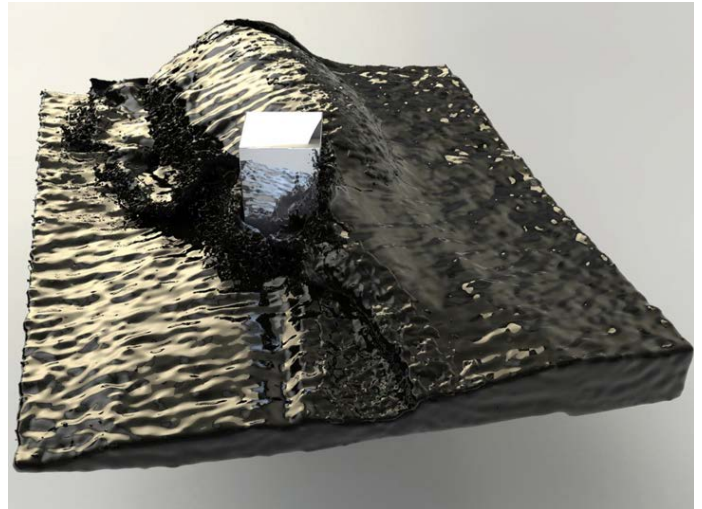


*Above: Debris aftermath of disasters caused by the impact of natural hazards simulation:
Artist Eyal Gever*



*Above: Nuclear Bomb, May 2012,
Artist Eyal Gever*

*Below: Massive Tsunami Crashing 2011/12,
Artist Eyal Gever*



*Below: Tsunami Crashing
Artist Eyal Gever*





Meteor Crash
2013. Acrylic and String. 48 x 48"

MIXED MEDIA ARTIST Stephanie Peters, who grew up on a farm in Maryland and now living in central Arizona, has always been surrounded by nature and open spaces. Inspired by her surroundings, she creates abstract compositions with texture and sculptural relief. Her body of work explores the human interaction with the natural environment. Within this context she has been especially interested in the devastating power and magnetic beauty of natural disasters.

It all started with the 2004 Indian Ocean tsunami. "I remember feeling stunned and confused as I was watching the news of this tragic disaster unfold on the television," said Peters, who was a senior in high school at the time. She could not understand how something so big and so devastating could happen without a warning. "What can we do to help those affected heal?" she wondered.

Years later, in early 2011, Peters decided to channel this question into her artwork. At the time, she had just finished her degree in studio art and art history from the University of Arizona and was working in an art supply store. "One day we received a couple of stretched canvases that were torn and instead of tossing them in the dumpster, my manager let me keep them," Peters explained. "I joked with my co-workers that all you had to do was stitch up the canvas, and it would heal."

That spring, as tornadoes were hitting the Midwest with a vengeance, Peters began to stitch one of the canvasses. Once it was repaired she added colors that echoed funnel clouds hitting the ground, and she used acrylic mediums to add texture and create movement. "In some ways, stitching the canvas and painting this picture—the first in my *Natural Disasters* series—symbolized something bigger," Peters said. "I wanted to stitch up the survivors, repair their homes and their lives."

Natural Disasters is a collection of 12 abstract paintings inspired by the rapid increase of disasters Peters witnessed

Stephanie Peters

HEALING AFTER DISASTER

in the last decade. Each painting represents a disaster through color, line action, and material. After completion, the paintings were ripped up and stitched back together in order to symbolize how communities and the environment can heal in the aftermath of disaster. The collection deliberately does not discuss the scientific causes of natural disasters, nor does it engage in the climate change debate. Instead, it is meant to remind us of how we recover and move on. As such, it shows that something so devastating can have a positive outcome.

Peters chose an abstract style for her series to represent the surreal feeling that occurs when a disaster strikes. Because she experienced many of the disasters firsthand—an earthquake in Virginia, hurricanes in North Carolina, and sandstorms and wildfires in the Southwest—Peters knows this feeling all too well. "When you find yourself in the midst of a disaster, it seems the brain can't compute what is going on," Peters explained. "Because it can't provide an appropriate response, the situation feels surreal and abstract."

Peters acknowledges that disasters, besides being brutal and surreal, can also be breathtaking and astonishing. "When an avalanche falls, or a meteor shoots through the sky, it's hard not to see beauty," she said. "For that reason, I wanted this series to reflect that even in disaster, nature is beautiful." To achieve this, Peters chose vibrant colors full of light and energy.

Natural Disasters commemorates disasters and celebrates determination—of people and the environment—to heal and to move forward. The series was featured in the 2013F issue of *Brand*, an international art and design magazine. Her paintings were also on display at White Hills Gallery, Camp Verde, Arizona, in 2014, as part of Peters' first solo show. Her work can be found in private collections internationally and across the United States.



Left: Hurricane
2012. Acrylic and String 18 x 24"

Below: Tornado
2011. Acrylic and String. 22 x 28"



Mudslide
2014. String and Mud on canvas. 16 x 20"



Avalanche
2012. Acrylic and String. 16 x 20"

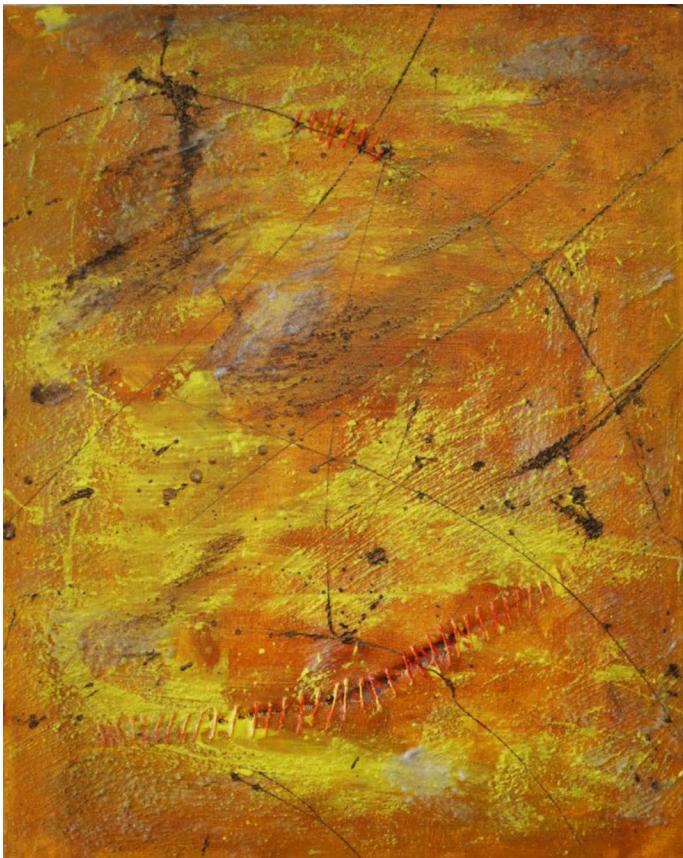




Flood
2012. Acrylic and String. 18 x 24"

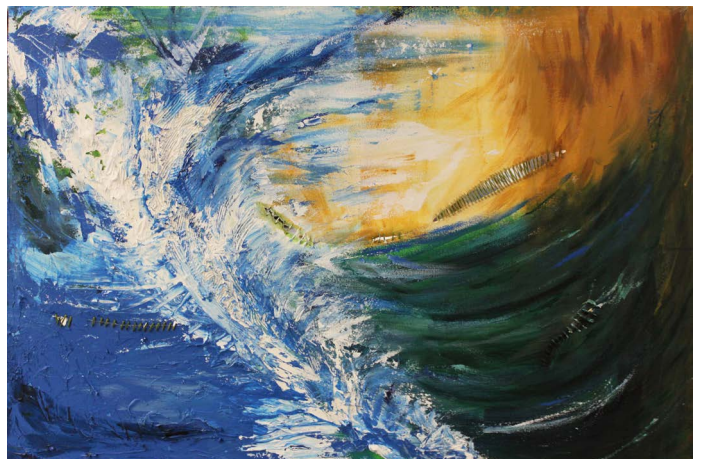


Blizzard
2012. Acrylic and String. 18 x 24"



Left: Sandstorm
2012. Acrylic and String 16 x 20"

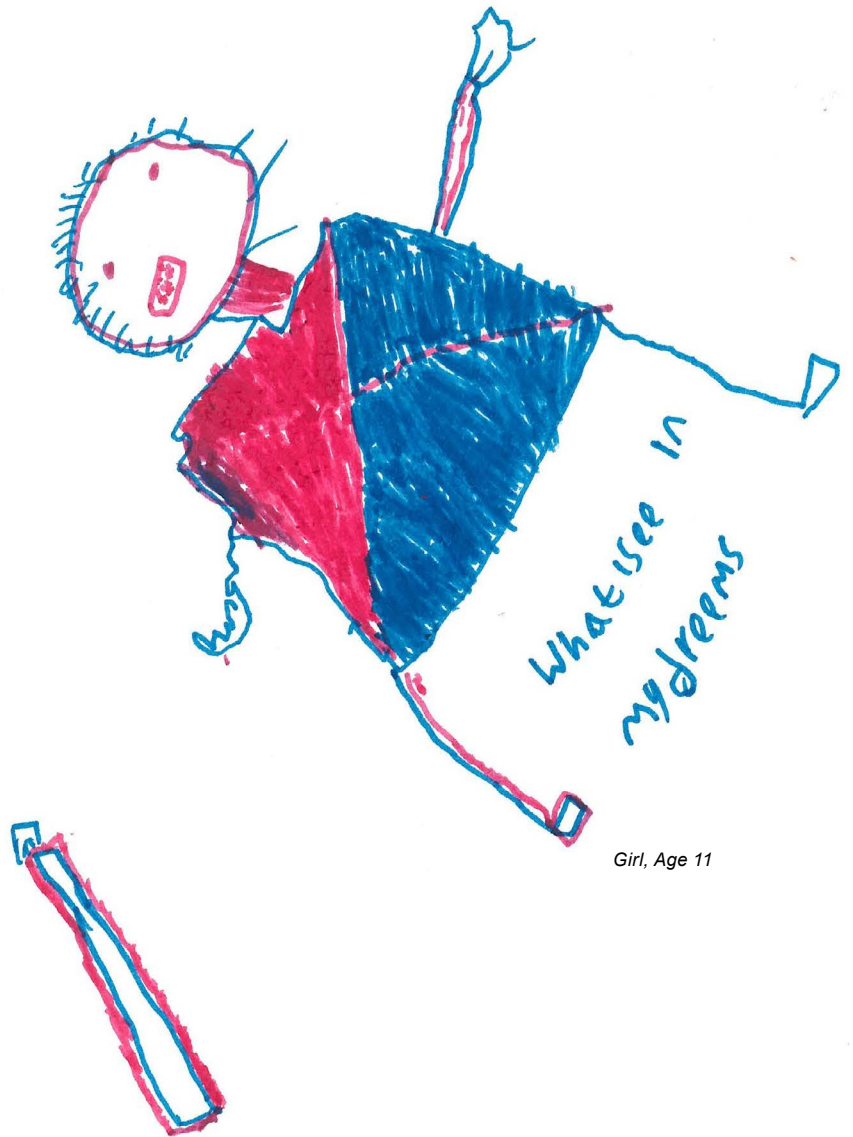
Below: Tsunami
2013. Acrylic and String 36 x 24"



“WHAT I SEE IN MY DREAMS”

USING ART TO HEAL INVISIBLE WOUNDS

By Gwen Vogel Mitchell



Girl, Age 11

IN SEPTEMBER 2005, I was deployed to Nigeria as a clinical psychologist by *Medicines Sans Frontiers/Doctors Without Borders (MSF)*. The emergency response followed a series of outbreaks of violence in the central Nigerian state of Plateau. In early May 2004 thousands of Nigerians fled from central Plateau State after clashes between rival militia culminated in a series of massacres. In the immediate aftermath of this horrendous tragedy, MSF created mobile clinics to medically assist more than 10,000 displaced people living in makeshift camps under extremely difficult conditions.

Two particularly brutal attacks took place in Yelwa, a market town located in the southern part of Plateau State. On February 4, 2004, armed Muslims killed more than

75 Christians and in an act of retaliation, on May 2 and 3, large numbers of armed Christians surrounded Yelwa, and killed more than 700 Muslims. Much of the city was destroyed and thousands of people were displaced.

MSF provided emergency medical aid to those who had fled Yelwa and helped with reintegration efforts once the violence had subsided. While treating many physically injured adults and children in displaced persons camps, members of the MSF team began hearing the horrific stories of what people had experienced during the attacks. The team realized that many survivors, including children, were experiencing acute trauma responses, including numbing, emotional detachment, muteness, depersonalization, psychogenic amnesia. They also had continued

re-experiencing of the event via thoughts, dreams and flashbacks, as well as avoidance of any stimulation that reminded them of the event. MSF recruited me to help launch a psychosocial program aimed at helping adults and children as they returned home and tried to rebuild their shattered lives. The program we created for traumatized children used creative techniques and community support to achieve its success.

We learned much from developing and implementing this program. Prior to this I had only used art therapy in the United States with adults and children who have either survived a traumatic event or were coping with a traumatic loss. What we designed became the first of many projects in which I integrated art therapy to help people recover from trauma in disaster contexts globally. The events that occurred in this village in Nigeria changed my life, and showed me the power of art therapy to help heal seemingly unbearable trauma among survivors of heinous crimes.

During my tenure in Yelwa MSF provided art therapy and counseling to approximately 2,500 children enrolled in schools in Yelwa and the surrounding area. The story that follows summarizes how our work helped trauma victims and became a catalyst for future integrative projects.

ARRIVING

Among the first things I saw when driving into Yelwa in our white Land Cruiser were crumbled buildings and mass grave sites, eerie reminders of the brutal attacks that had occurred just a year prior to my arrival. After the attacks market life was initially scarce in Yelwa and in the surrounding towns of Garkaka and Longvel. A pulse gradually returned to these previously lively towns and when I arrived street life was back in full swing.

The vendors weren't the only people who had disappeared from the streets in the aftermath of the attacks. My colleagues informed me that there was a noticeable absence of police and military, something that many people viewed with suspicion. Once a military presence returned roadblocks became commonplace on the roads into Yelwa. At first, MSF gave out condoms—a coveted commodity in a country where HIV is rampant—as a way to quickly pass through the road blocks. We quickly learned however, that this practice was affecting others who were also trying to pass through the roadblocks as they had nothing to give (see text box page 16).

BACKGROUND

Since the 2014 kidnapping of the Chibok schoolgirls by Boko Haram, a branch of the Islamic State of Iraq that has been active since 2009, Nigeria has been in the news a lot (Human Rights Watch 2005). But religious-related violence predates the emergence of Boko Haram. Africa's most populous nation, with 150 million people, has seen a steady rise in violence between the Muslim north and Christian south of the country since its independence in 1960. Nevertheless the roots of the violence go beyond religion.

The 2004 conflict in Plateau State, for example, stems from longstanding disputes over land, political, and economic privileges between ethnic groups who consider themselves original inhabitants of a particular area, called indigenes, and those whom they view as settlers. Until 2001 these disputes had never led to large-scale loss of life, but in September of that year, tensions suddenly exploded in Jos, the state capital, and around 1,000 people were killed in just six days. What had started as a political conflict turned into a religious one as the ethnic divide happened to coincide with the religious divide. The tensions between indigenes and settlers became a conflict between Christians and Muslims, as both sides used religion as a rallying cry to drag other groups into the conflict. After the attacks in Jos, the violence soon spread out to other parts of the Plateau State. In the years to follow poverty and regional oppression further fueled the fire.

Despite the escalation of the conflict in this area since September 2001, and clear warning signs of the likelihood of further violence, the Nigerian government did not take any effective action and allowed the conflict to spiral out of control. Finally when Yelwa was attacked on May 2 and 3, 2004, the scale of the violence could no longer be ignored. On May 18, Nigerian President Olusegun Obasanjo declared a state of emergency in Plateau State (Human Rights Watch 2005).



COCIN church no.1 in Yelwa, where at least 48 Christians were killed on February 24, 2004. © 2004 Human Rights Watch



Central mosque, Yelwa, destroyed during the May 2004 attack. © 2004 Human Rights Watch



The third of six mass graves for victims of the May 2004 attack in Yelwa. © 2004 Human Rights Watch

EXTORTION

The police in Nigeria frequently extorts money from the public at taxi stands, in marketplaces, or while going about their daily lives. However, the most common venue for extortion occurs at police roadblocks, ostensibly put in place to combat crime. In practice, these checkpoints have become a lucrative criminal venture for the police who routinely demand bribes from drivers and passengers alike, in some places enforcing a de facto standardized toll. Extortion-related confrontations between the police and motorists often escalate into more serious abuses. The police has on numerous occasions severely beaten, sexually assaulted, or shot to death ordinary citizens who failed to pay the bribes demanded.

GETTING STARTED

When it comes to mental health services following man-made disasters, building relationships and trust is an obligation, not an option. Therefore, we quickly determined that the local team of counselors selected from the community and trained on basic mental health skills would need to represent both sides of the conflict—men and women, Christians and Muslims. After a rather large round of interviews, which included role play, a team of five local counselors were selected. I became their clinical supervisor and trainer. The first round of intensive training lasted one month. All of the new counselors had experienced the violence first hand, meaning they were both survivors and providers, and they often needed additional support to work through their own trauma experiences tied to the crisis. The material processed in group supervision mirrored the issues faced in the community. For example, issues related to trust between the Christian and Muslim counselors played out right there in our supervision meetings and the counselors were able to process and make meaning of this experience both as professionals as well as members of their respective communities. This helped them facilitate their trauma groups and work with community members from different groups and see issues from multiple perspectives.

Together we examined stereotypes and biases and team dynamics improved as authentic relationships were formed and maintained. That decision to have a representative team was a game-changer. The diverse team of psychosocial counselors quickly became known as the "Fab Five." As the trust among team members grew, so did the numbers of referrals we received to our support groups and school-based art therapy programs. Within a few months we had a wait list for services and I was given

approval to hire an additional counselor. The team was subsequently referred to as “Fab Five Plus One.” They were respected and consulted frequently because they could diplomatically update the international staff on the nuances of the conflict in a matter of minutes and help us get the root cause of any social, cultural, or governmental roadblock put in our way.

PROJECT STRUCTURE

Psychoeducation

In the treatment literature, much attention is paid to the cognitive and emotional processing of traumatic memories (Briere, 2003; Allen, 1991; Flack, Litz, & Keane, 1998; Friedman, 2000a; Najavits, 2002). Nevertheless, psychoeducation is also an important aspect of the early stages of trauma recovery. Many survivors of interpersonal violence were victimized in the context of an established relationship to their perpetrator or in this case, perpetrators. As a result, the traumatic experience is difficult to make sense of; and, in the case of children, it occurs at a relatively early stage of cognitive development. This lack of cognitive development impairs their ability to accurately and coherently understand what has happened.

Child survivors often carry fragmented, incomplete, or inaccurate explanations of traumatic events into adulthood, with predictable negative results. Psychoeducational activities are therefore helpful in the therapy process. As the client addresses traumatic material, he or she may gain from additional information that normalizes or provides a new perspective on their traumatic memory. Our local Nigerian psychosocial counselors assisted in this area by providing accurate information to their clients on the nature of trauma and its effects on both the survivor as well as on his or her support system.

Children are one of the most under-served populations among disaster survivors. When it comes to assessing their needs in a post-conflict or post-disaster setting, children’s capacity for resilience is often overstated by the adults and other care-givers around them. This is due to a misunderstanding of why children engage in play. Statements such as “he’s already playing again, he’s going to be just fine,” can be dangerous and misleading. I once watched a young girl practice calling 911 over and over again while “playing” with a large doll house. During therapy, I learned she blamed herself for her mother’s death because she believed she did not call for help early enough. This had not been discovered during the initial interviews because this young girl was dissociated and highly emotionally regulated. For all intents and purposes, she looked to be coping just “fine.” What appeared to be resilience and control was actually a masking of much deeper fears and regrets.

Disasters can have far reaching and long-lasting effects on the mental health of a child. Some children can appear “just fine” in the immediate aftermath, only to suffer greatly down the road with all sorts of issues, including sleeping problems, trust and intimacy issues, emotional regulation, frustration tolerance, and self-soothing defi-

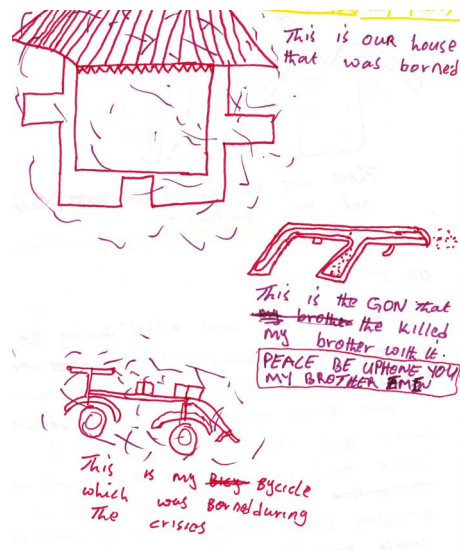


Fig 5 Male, Age 14

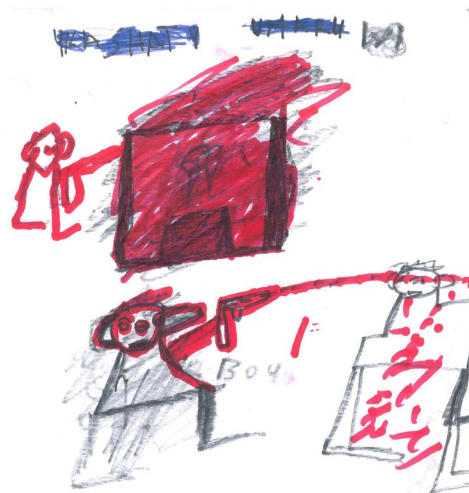


Fig. 6 Male, Age 8



Fig 7 Female, Age 11

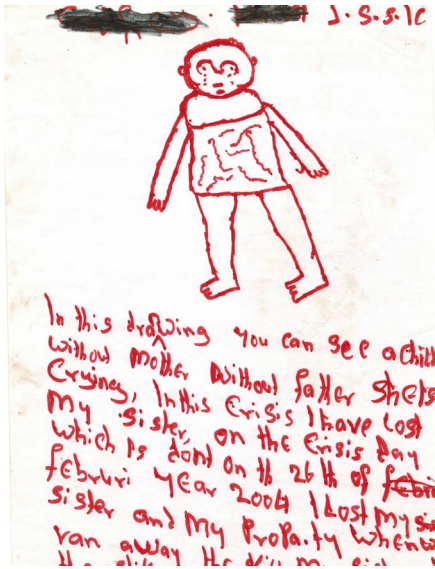


Fig. 8 Male, Age 11

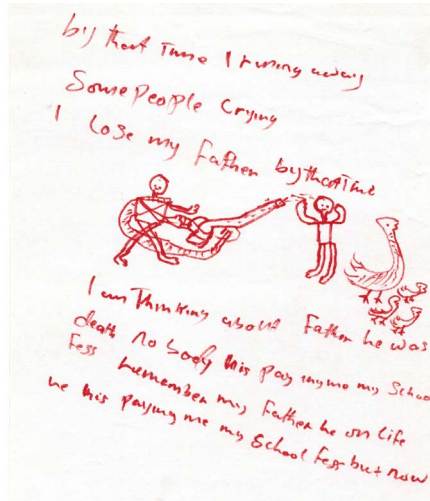


Fig. 9 Male, Age 13



Fig. 10 Female, Age 15

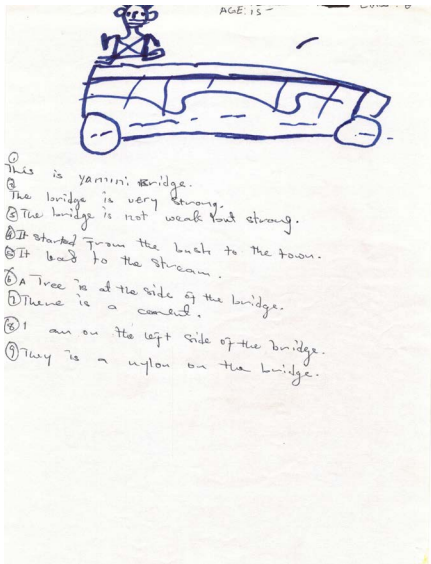


Fig. 11 Male drawing, Age 15



Fig. 12 Male drawing, Age 14



Fig. 13 Male drawing, Age 15

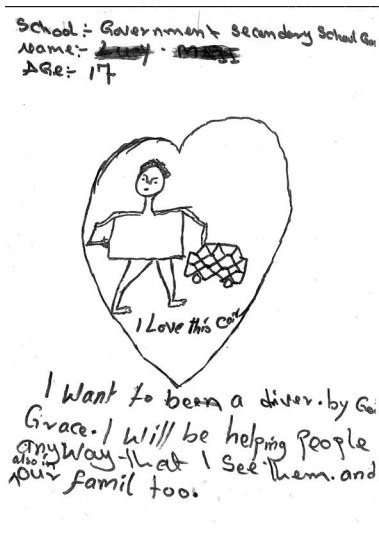


Fig. 14 Male, Age 17

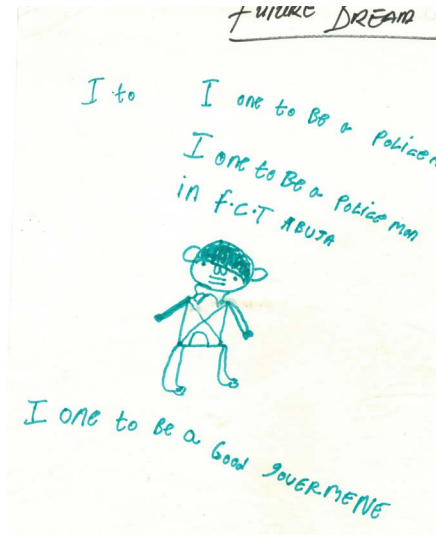


Fig. 15 Male, Age 12

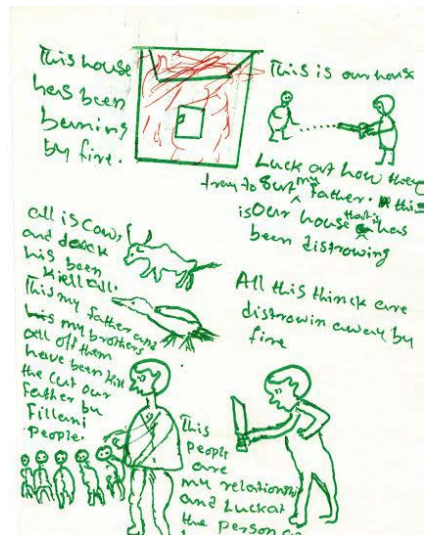


Fig. 16, Age 17

cits. Art therapy in the immediate aftermath of disaster has been demonstrated—by the team in Yelwa and many other scenarios-- to be effective in reducing these impacts on children (Roje 1995, Orr, 2007, Chilicote 2007, Howie et. al 2002).

PROJECT LAUNCH

The MSF mental health team first visited schools and community leaders in Yelwa to explain how children might manifest their trauma. Difficulty concentrating, crying jags, becoming easily upset in the classroom, missing school, poor academic performance and/or substance use were frequently reported. Once educated about the impact of trauma and trauma responses, the teachers in Yelwa felt empowered by new information and could make sense of what appeared to be senseless behavior. Their attitudes changed, their frustrations decreased and they quickly became our best referral source. Taking time to educate the teacher about trauma was a way to offer them support.

CLINICAL PROGRAMMING

In group or individual sessions, participating children learned how their feelings and behaviors were linked to their personal experiences. MSF counselors used drama, drawings, breathing techniques, and most of all, talking and listening. Regularly talking and listening to others helped participants put their own problems in perspective. They learned that while many children were struggling to make sense of what happened, few were speaking openly about it. They also realized they were not the only ones struggling, and they were relieved to hear others discuss what they were experiencing. This exchange among children helped to reduce the obvious (conduct disordered) problematic behavior and the not-so-obvious (dissociated, shut down) behavior teachers were seeing in the classroom and family members were seeing at home. Both the obvious and less obvious behaviors are important to note because sometimes it is only the children who are “acting out” that are identified for help. Children who are shut down should also be assessed and supported.

The art-based intervention that was developed for this project lasted six sessions and included pre- and post interviews of the participants who ranged in age from 6 to 18. Both Muslims and Christian children took part. At the end of the intervention, they evaluated the local counselors. During the course of the intervention the MSF psychosocial team focused on the following topics: establishing safety, remembrance and mourning, bridging life before and after the traumatic event, and exploring the children’s hopes and dreams for the future. Along with a semi-structured discussion, the MSF psychosocial counselors distributed paper and pens and created a safe space so that the children could freely draw a picture that aligned with the topic under discussion.

In the first weeks the youngsters bent over their pieces of paper, concentrating intensely as horrific scenes took shape: men with oversized weapons, people riddled with

bullets, burning houses, and people with severed limbs. One boy even captured on paper what had happened at the local soccer field: a heinous event where three young men from the community were brutally murdered on the field. This drawing sheds light on the bizarre avoidance and resistance many teachers and parents were seeing from their children when encouraged to “just go play futbol.” Later on, the students focused on drawing elaborate bridges. The bridge symbolizes an individual’s perception of the world (dangerous or safe) and of his or her control over the environment (low or high). Each participant was asked to draw a bridge and place him or herself in the picture. They also drew soccer stars and medical doctors, capturing their dreams for the future and how they might achieve them.

During the different activities, the local counselors asked the children to explain their drawings and listened to the descriptions: father shot, uncle decapitated, sister abducted, house ransacked and burned down, sharks under the shaky bridge to safety, dreams of becoming a teacher. The children recounted hundreds of traumatic scenes in uncannily absent, seemingly calm voices. The transition activities were important to help the children put space and time between the traumatic events and where they hoped to be. In the dream sequence many of the children laughed and acted playful.

Over the course of my time in Yelwa, it became clear that some children strained to express their emotions and traumatic memories verbally, but on paper, where anything was fair game, they vividly, graphically, shared their experiences in drawings. The pictures they drew captured what worried, scared, and motivated them.

MOBILE ART EXHIBIT

At the end of the six-week intervention, the children were asked what they wanted to do with their pictures. A few of them wanted to burn or bury the more painful renderings, as a way to mourn or move past what they had experienced or lost. The local counselors offered some clients a grieving ceremony, in which they buried a picture or arranged for a symbolic funeral ceremony with family for a lost loved one. They often sang local funeral songs and reminisced about the person the child had lost. Other kids asked if their art could be exhibited for their families and communities to see. The clinical psychologist who values privacy above all else in me balked at the idea of publicizing what was confidential therapeutic material. But the social justice advocate in me learned that by allowing these children to exhibit their artwork we were giving them a platform to be seen and valued as artists and members of the community. The experience of exhibiting their work helped the children feel empowered as they were treated as artists who had accomplished something, rather than as victims or clients.

The communities in Yelwa came out in droves and the country office in Abuja, 2,000 miles away, also held a series of incredibly well attended events to further highlight the program and allow for the pictures to be seen. Many of the

children showed signs of post-traumatic growth, or a positive change experienced as a result of the struggle with a major life crisis or a traumatic event. Further, they showed up to the mobile art exhibits in their best clothes with large smiles on their faces. They talked about feeling more secure and their behavior in school and at home underlined this perception of growth.

This art therapy project was successful in helping these children break free of elements of their traumatic experiences. By simply having a safe place to tell and draw their stories, the children were able to integrate horrific experiences into their lives. Most of the kids improved in multiple areas of functioning—as evidenced by improved performance in school and better relationships with friends and family. Since the conclusion of this project I have integrated the arts—both drawing and photography—into recovery efforts around the world, including in Northern Thailand with Shan Migrants, and in Liberia with torture survivors.

Thanks to modern social media, namely Facebook, I have reconnected with three of the six “Fab Five Plus One” over the last two years. One, tragically, died from AIDS. The other two are reportedly living happy lives with their families. Unfortunately, they are no longer working as psychosocial counselors; their lives quickly converted back to the ones they were leading before MSF came to town and hired and trained them. The lack of local organizational capacity building and hand-off to local partners is one area of disaster response and development that could use more work. Integrating ideas about sustainability can be hard when developing a disaster response, but is essential if an organization wants to have a lasting impact. Far too many times, good projects end when the seed funding runs out and no plan for sustainability has been created.

One of the women I connected with went back to teaching and has a small pharmacy. The other went back to school and secured a government position in the capital of the Plateau State.

In the Plateau region things haven’t changed much, although no violent outbursts have occurred since the 2004 attacks. Both team members note the tensions between Muslims and Christians in their correspondence, but they do not feel directly affected by these tensions and are leading stable peaceful lives.

I am grateful that I am able to stay connected to these wonderful people. I deeply enjoy reminiscing with them. I smile when they remind me of things I would say wrong in Housa, their local language, such as “my bag is inside the donkey” when attempting to say “my bag is inside the car.” They continue to deeply affect me, both professionally and personally, and I will be forever impressed by and grateful for the work they did in the aftermath of this horrific man-made disaster.

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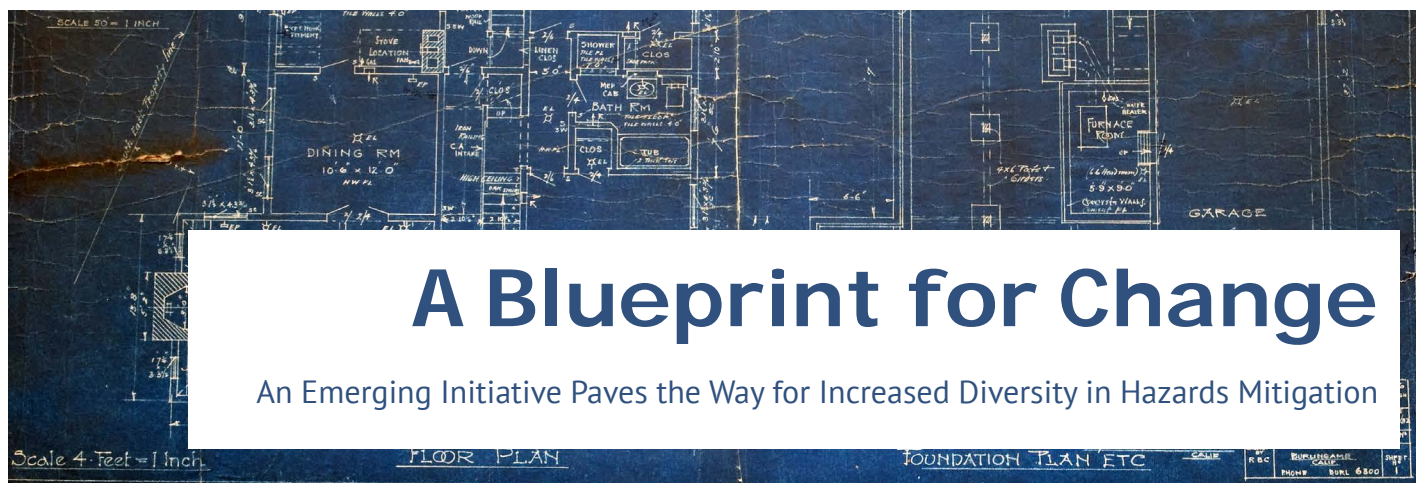


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Mitchell has worked for many years as a trauma psychologist for humanitarian organizations including Doctors without Borders and the Center for Victims of Torture in various locations including Nigeria, Liberia, South Africa, Sierra Leone, Jordan, Myanmar, Thailand and Bosnia. She has particular interest in staff welfare, capacity building, refugee mental health and interpersonal violence. She has also provided support for humanitarian staff and was a member of a UNICEF technical work group focused on child protection inside Myanmar. Mitchell played a part in the development of a mental health policy for the country of Liberia and has developed programming for marginalized groups including people living with HIV/AIDS, LG-BTQ communities, former political prisoners and torture survivors.

Mitchell has authored and co-authored various publications in the areas of: Post Traumatic Stress Disorder (PTSD) in refugees, Post Traumatic Growth (PTG), counseling applications with people of African ancestry, the impact of war on civilians, therapeutic photography, group interventions with vulnerable populations in Myanmar, re-entry trauma and the experience of working as a psychologist internationally.



A Blueprint for Change

An Emerging Initiative Paves the Way for Increased Diversity in Hazards Mitigation

By Benika Dixon and Hans M. Louis-Charles

THINK ABOUT THE LAST TIME you attended a conference connected to Disaster Mitigation or Emergency Management. Now think about the number of minorities in attendance. Chances are you could count them on one hand. The William Averette Anderson Fund for Hazard Mitigation Education and Research (also known as the Bill Anderson Fund, or BAF) was created to address this disparity. The fund was created in honor of Bill Anderson, whom many in the hazards community will remember for a career spent working to understand and address the extent to which marginalized groups suffer disproportionately when disasters strike. He also fought vehemently to ensure that women and people of color were recruited into all hazards professions—from the frontlines of hazards management to critical hazards research. These two interests are not unconnected.

For decades research findings have highlighted the phenomena of racial and ethnic minorities having increased difficulty evacuating before a crisis and being more likely to experience disproportionate physical and financial loss during times of disaster (Taylor, 2005). These differences in response and recovery occur for a myriad of reasons, including socioeconomic status, cultural and language barriers, lack of representation within local institutions, and other factors. Catastrophes such as Hurricane Katrina and recent disasters such as Hurricane Sandy demonstrate what can happen when the unique needs of communities are not included in disaster planning or when emergency responders cannot effectively communicate with community members (Andrulis, 2014). More diversity in the hazard and disaster field has been widely acknowledged as necessary for better understanding of and more inclusive planning for marginalized populations.

While both academics and practitioners might agree on the need to address this dynamic, substantial efforts to solve this problem rarely move beyond mere discussion. After Anderson passed away in 2013, his wife Norma dedicated herself to taking action to address this disparity through the Bill Anderson Fund.

“Bill would raise two fingers, sometimes three or four, to represent the number of African Americans and minori-

ties in an audience of hundreds with himself being one,” she recalled. “Bill was never shy at raising these concerns at conferences.” By supporting students of color as they pursue careers in the hazard and disaster field, the BAF seeks to ensure that future professionals do not have similar experiences.

Ellis Stanley, the former Director of Emergency Management for Brunswick County, North Carolina, agreed that the BAF is a great way to address this lack of representation. As an African American Emergency Manager with more than 35 years of experience in the field, Stanley recognizes the historical lack of parity between the emergency management workforce and the diversity of communities it serves.

“Bill understood how extremely powerful it is when a community or individual sees themselves represented,” he said, speaking about the Fund. “The BAF has the potential and can transform the field by becoming the visible force that inspires future generations to become interested in the field.”

Emergency management is among the fastest-growing job sectors in the United States and sustained growth is projected in the coming years (Webster 2010). Yet the representation of women and minorities in this field continues to be low. The Federal Emergency Management Agency acknowledges the need for increased diversity within its ranks.

“This is part of the ‘whole community’ approach we have at FEMA, which means we need to be inclusive in everything that we do,” stated Elizabeth Zimmerman, of the FEMA Office of Response and Recovery. “The makeup of emergency management agencies should reflect the makeup of the communities they are likely to serve” (Lindesmith, 2014). As the hazard and disaster field has expanded, the underrepresentation of diverse populations has also become increasingly recognized as problematic in emergency management and related professions.

To address the demographic deficit in the hazards field, the BAF focuses both on recruitment of minorities at the undergraduate level and the retention of those pursuing graduate degrees. Both tasks are daunting, especially the

latter. A study by the Council of Graduate Schools and the Educational Testing Service found that attrition in U.S. doctoral programs is as high as 40 to 50 percent (de Vise, 2010). Even more alarming is the low number of minorities that join the ranks of tenured faculty—as of 2011, only four percent were African American, three percent Hispanic, eight percent Asian/Pacific Islander, and less than one percent American Indian/Alaska Native (U.S. Department of Education 2014).

But as challenging as the work might be, the focus on outreach to students is just as essential, because careers in policy, practice, research, and other disaster-related professions increasingly require advanced degrees and specialized training. Having a mentor that understands the challenges of minorities can ease some of the difficulties graduate students face in today's market. John Cooper, Jr., a Texas A&M associate professor affiliated with the Hazard Reduction & Recovery Center knows that firsthand.

"I got my PhD ten years ago and many people would say I turned out fine," he said. "However, looking back on it, I believe that if I had something like the BAF, it would have been a tremendous asset. I would not have stumbled as much... completing the coursework is the easy part, it does not get hard until you start preparing for exams and actually writing the dissertation. I was fortunate to have an advisor, Phil Berke, who is still my advisor, who stressed the need for my perspective in the field. Bill Anderson was one of the few lone voices at the time."

This type of encouragement and support, provided systematically to students from underrepresented groups at various stages in their academic career, can help to better prepare them to contribute their perspectives as hazard and disaster professionals of color.

The BAF's unique organizational structure of four advisory councils allows practitioners, academics, and students to work cohesively to actively recruit new students and provide mentoring and growth opportunities for current graduate students. The councils include the Fundraising Council, which is made up of individuals who help generate funding, the Distinguished Leaders Council, who are members of the hazard and disaster mitigation field vested in the BAF mission, the Program Council, which is a two-part group that focuses on identifying undergraduate students interested in the hazards profession and on identifying graduate level programs and professional organizations to receive these students, and the Student Advisory Council, which consists of students in the fields of hazard and disaster research.

In its inaugural year, the BAF Student Advisory Council held the three-part Hazard & Disaster Mitigation Professional Development webinar series which benefitted more than two hundred students and emerging professionals with firsthand interaction with professionals in diverse disaster-related careers. The first annual Bill Anderson Fund Student Council Workshop will be held in advance of the Natural Hazards Research and Applications Workshop in Broomfield, Colorado. This event will include workshops, training, and networking opportunities that support members of the Student Advisory Council in attaining profes-

sional goals and enabling them to pass along knowledge and lessons learned to subsequent cohorts.

Cam Horne, current BAF Student Advisory Council member and a new Public Assistance Specialist for South Carolina Emergency Management Division, is a great example of the BAF's success.

"The Fund is fostering an amazing social community and cultural environment for someone like me who is passionate about the hazard/disaster field," he said. "Whether it's networking opportunities, learning from others and now being able to mentor new students, [it] has helped me grow tremendously in this profession."

In 2014, Norma Anderson set out to found the fund in memory of Bill Anderson. One year later, the results are already evident. Its continued success, however, will depend on how truly dedicated the hazard mitigation field is to increasing diversity. It is time for us as a community to move beyond talking about change. The Bill Anderson Fund and other organizations focused on diversity provide unique opportunities to alter the ways in which hazard mitigation and response are approached. It is important that we support and learn from their model so that our entire society benefits from the exceptional talent that will result from its dynamic approach.

Special thanks to collaborators Nnena Campbell, Marccus Hendricks and Shimere Ballou

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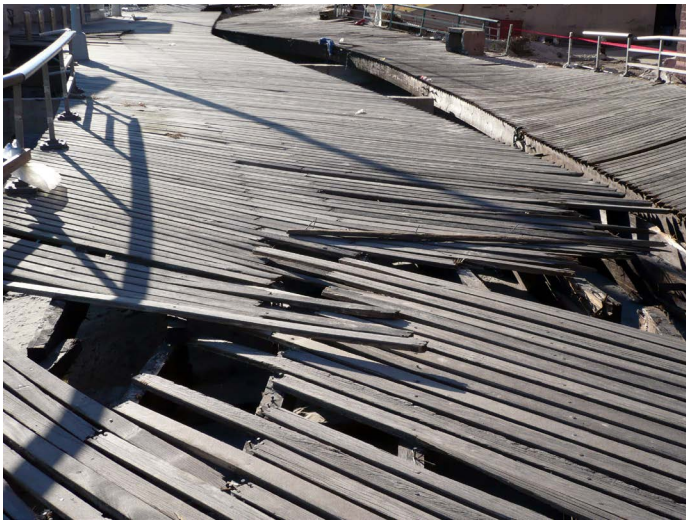
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For this assignment we invite you to use your camera to document climate change and how you see it changing the place you live.

We would like you to explore the climate in your own neighborhood and community. Have you seen any changes? Are trees leafing out earlier in spring? Are the flowers blooming earlier? Are you seeing different and new kinds of flora and fauna? Do you see birds that are ordinarily found farther south, or north? Are there more wild fires or floods where you live? If you live in a coastal community, are you seeing impacts from coastal storms, like coastal erosion from rising sea levels? Have rivers and lakes dried up around you? Is it hotter or colder than usual? Are you seeing more or less precipitation? Have you seen climate action initiatives in your community?

Submit your photographs, captions, and a short bio to:

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Angels for Joplin

ARTIST TRICIA COURTNEY

In the late afternoon of Sunday, May 22, 2011, a catastrophic EF5 multiple-vortex tornado struck Joplin, Missouri. With a path that reached nearly one-mile wide, the tornado killed 158 people, injured another 1,150 and caused \$2.8 billion in damages. Within minutes much of the city was turned into rubble.

In the aftermath of this devastating disaster, Joplin-based artist Tricia Courtney began to collect the tornado debris that was scattered everywhere. She used it to create Angels of Joplin, a series of assemblage sculptures. She has made and sold hundreds of angels and donated the proceeds for tornado relief. Courtney—herself a survivor of this tornado—shared her story and talked about her tornado experience and how her remarkable project came about.

WHEN SHE WAS A LITTLE GIRL growing up in Tornado Alley, Courtney thought that storms were thrilling. “I used to love the dark skies, the humid breeze, and the rumbling of thunder,” Courtney said. “Occasionally the weather would be severe and some of my neighbors would come to our house and head to safety in the basement with us. My mom would make popcorn and I remember it was fun, not scary.”

Two events in the early 1970s changed her carefree outlook on storms. “In May 1971 an EF3 tornado hit Joplin, killing one person and causing \$20 million in damages,” Courtney recalls. “Two years later a powerful thunderstorm with hurricane force winds took three lives, injured over 100 citizens, and destroyed many homes and businesses.”

Courtney was deeply affected by these two events and rather than feeling excited when storms were near, she began to be distressed and nervous. “I was always keeping an eye on the sky,” Courtney said. “And even when I told

myself to be calm, there was this inner feeling of nervousness.”

The days that led up to the 2011 tornado were no exception and Courtney recalls feeling anxious. She followed the forecasts on the Weather Channel closely. “The meteorologists were predicting a tornado outbreak for our area that Sunday afternoon,” said Courtney. “My husband and I insisted that our two daughters stay home and not go out that night.”

As Courtney and her family watched the approaching storms, neighbors started to ring the doorbell. “All of my neighbors have a standing invitation to hide in our cellar when the sirens sound,” Courtney said.

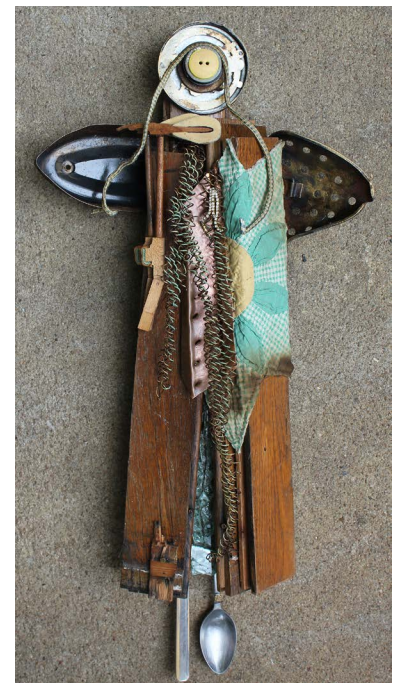
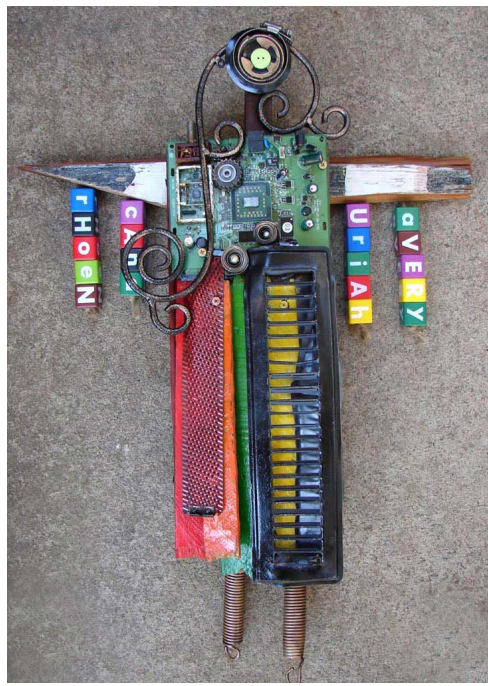
As the neighbors filed in, the sirens were accompanied by a rolling rumble in the distance. It was very dark outside, Courtney remembered, and it was raining heavily. “We noticed that the rain didn’t fall down, it poured horizontally. It was very strange.”

After the sirens had stopped and the storm had past, news of the tornado damage began to trickle in. “St. John’s Hospital had been hit and was on fire,” Courtney said. “A church, the elementary school that our children had attended, a high school, the Wal-Mart and Home Depot had been hit. Fires were everywhere. We heard the sound of fire trucks, ambulances, and helicopters.”

Courtney and her family went to McAuley High School where a triage station had been set up. Until the early morning, they helped serve coffee and sandwiches to patients who had been moved from St. John’s to safety.

In the next few days, news about people who survived and who hadn’t survived came in. “Our family knew several people who died in the tornado,” said Courtney. “There were so many heart breaking stories.”

Altogether 158 people died that day. The sheer scale of



death and destruction was overwhelming, Courtney recalls. She drove to a friend's house and all she could see was debris. "It looked like a bomb had exploded and it reminded me of the images I have seen of European cities that were bombed during World War II," she said. "All the landmarks were gone, the only thing that I could see that told me where I was, was St. Mary's Church cross, which was left standing while the church around it was destroyed."

A week after the tornado, Courtney met with a friend who came into town from California to visit her parents and volunteer in the community. Her friend asked Courtney if she was going to make any art from the debris. "I said probably not, and told her about the time that I had visited Greenburg, Kansas, after the 2007 tornado," Courtney said. "I picked up a few pieces of debris—a broken mirror, scraps of metal, and scraps of wood, thinking I'd make an angel."

But instead, Courtney said, she felt strange about it. It didn't seem right to her to make and sell a piece of art that had come from so much sorrow. "I eventually made a small angel of the Greenburg debris and gave it to a friend of mine from Tulsa, Oklahoma, whose one-year-old son had died," Courtney explained. "To me that made sense."

Courtney, encouraged by other friends and family members, decided that if she were to start creating art from debris, she would make it a project to help the community. She designed a logo, built a Facebook page and began collecting debris.

In the past few years, she has made hundreds of angels. "Many people brought me debris from their homes, so I could create special angels for them or their loved ones," Courtney said. "Many of these people shared their stories with me. Where they were when the tornado hit, how they

survived, and how they were coping."

Courtney made angels for doctors, nurses, firemen, policemen, teachers, and the volunteers who came to help. Making the angels was cathartic for her and others. She explained that after the tornado, people were all affected emotionally, spiritually, and mentally.

"Many of us felt helpless, especially in regard to aiding those who were affected in a more physical way, with the loss of loved ones, homes, and businesses," Courtney said. "I realized that creating these angels from the debris of this traumatic event was my way of touching these people's lives in more ways than one."

Courtney felt that through the broken pieces of debris, she could give survivors a symbol for putting their lives back together, piece by piece. "I know that healing is happening when I see tears of joy from the survivors who receive the angels, Courtney said.

The project was incredibly successful. Altogether Courtney made around 500 angels. She donated many of them to charity auctions and she heard that some of them sold for as much as \$1000—one even fetched \$3000.

The money she raised from selling the angels—around \$12,000 in total—went to several different charities. Joplin Area Catholic Schools, Art Feeds, Children's Center, St. Ann's School, Spiva Center for the Arts, Audubon Society, Joplin High School to name a few. The production of the angels has since slowed, although Courtney still creates them on request. To order an angel you can email her at courtney.tricia@gmail.com

Courtney is currently writing a book about Angels of Joplin, which will include images of the tornado's destruction and the angels she's created.



Building Bridges

The Program on Population Impact, Recovery, and Resiliency

An Interview with David Abramson

I met up with David Abramson in his office at New York University's College of Global Public Health recently to talk about his newly-launched research endeavor, the Program on Population Impact, Recovery, and Resiliency (PiR2). With this program he intends to build much needed bridges between the two distinct worlds he has straddled since he started working in the disaster research field ten years ago: the public health world of disaster preparedness and the disaster research world.

Why the acronym PiR2? "Because it describes the area of a circle and can be scaled to apply to small circles or large circles alike" said Abramson. "To me, it's the model to strive for in assessing population recovery: consider all the people, institutions, resources, and relationships engaged in disaster preparedness and recovery within a community – the area within their circle – and be scientific about it."

PiR2 applies both social science and public health theory and methods to the examination of disasters' effects on human health and well-being. The program has two major components, Disaster ResearchWorks and the Population Impacts, Recovery, and Resiliency Data Lab.

The first component—Disaster ResearchWorks—encompasses rapid research efforts, post-disaster assessments, and the design and implementation of research-informed solutions. Its flagship project is the SHOREline program, a national high school-based youth-empowerment project in which "youth help youth recover from disaster." SHOREline, which seeks to foster Skills, Hope, Opportunities and Resilience through Engagement among youth, was founded by Abramson and his colleague Lori Peek based upon a decade's worth of Gulf Coast research about the impact of disasters on children.

The second component—the Data Lab—analyzes research data that Abramson and his teams have assembled in multiple disasters. Abramson is also planning to layer additional data on top of the survey data he has collected. This could include geospatial data that can vividly illustrate hazards and impacts, as well as social, demographic, and economic data that helps to more fully characterize the neighborhood environment.

Several large-scale, representative cohort studies and their associated data sets make up the heart of the Data Lab. These include the Gulf Coast Child and Family Health Study, a large cohort study of displaced households that Abramson began shortly after Hurricane Katrina; the Sandy Child and Family Health Study, a project which examines the potential long-term effects of Superstorm Sandy on New Jersey residents' health and well-being; and two cohorts related to the Deepwater Horizon Oil Spill, the Gulf Coast Population Impact Project, and the Women and Their Children's Health Study. Abramson is also poised to join colleagues in an NIH-funded program that includes his co-Principal Investigators from Tulane and Harvard, Mark VanLandingham and Mary Waters, as well as scholars from Brown, University of Michigan, University of Illinois, and Colorado State University to return to the Gulf Coast a decade after Katrina to explore long-term recovery.

By creating a comprehensive social science data lab, Abramson's goal is to compare the cohort data he has collected over the past ten years across various geographic and social contexts. He wants to understand what is generalizable, what is common, and what is different across all of these disasters. By doing so, he hopes to answer questions such as: How can recovery be best measured? And, perhaps most importantly, what factors are most likely to contribute to a timely and successful recovery for individuals, households, and ultimately entire communities?

RESEARCH VS. NEEDS ASSESSMENTS

The idea for the program was informed by Abramson's difficulty finding funding for long-term studies, starting with his Katrina study.

"It is always a tough sell to any funder, to say right after a disaster, 'I'd like to do a longitudinal study of recovery,'" Abramson said. "Funders tend to think, 'There are people who are suffering right now, why would I fund a research study that takes years?'"

While searching for financial backing for his Katrina Gulf Coast study, Abramson was reminded how much funders—particularly foundations and other philanthropies—resist devoting their humanitarian contributions to disaster research. Instead, they prefer needs assessments that immediately address urgent problems.

When Abramson first spoke to Children's Health Fund founder and president Dr. Irwin Redlener about his proposed Katrina study, Redlener, a pediatrician who has dedicated his career to providing medical care to some of the nation's poorest and most medically underserved children, too was a little allergic to the word research. This

forced Abramson to alter his proposal on the spot.

"My pitch to him was, 'Well I can do both, I can do a needs assessment that immediately addresses some of the questions surrounding the most pressing issues right now for people who are affected by the disaster, and at the same time, when I talk to these people we can enroll them in a longitudinal study and begin to look at long-term trajectories of recovery,'" Abramson explained.

Redlener "totally got it," Abramson said and provided the financial backing for the study. The same approach also proved successful when Abramson needed funding for his subsequent studies that he launched after the Deepwater Horizon oil spill and Superstorm Sandy.

Over the years, Abramson has been careful to use similar questions and measures when he surveys populations who have been exposed to natural, technological, or man-made disasters. This practice allows him to compare the experiences of people affected by disasters across time and different events. "It is humbling to hear the similarities across disasters," said Abramson, "and to be able to convey to communities, providers, and policy-makers that disaster impacts such as mental health effects are not unique to their neighborhood and their disaster, but have similar root causes and consequences. Contextualizing disasters this way can also help the media put a disaster in to perspective, as much as it may drive the development of common mitigation or recovery efforts influenced by such generalizable data."

SANDY CHILD AND FAMILY HEALTH STUDY

Over the years, Abramson has had the chance to observe the similarities across time and space, but also to see many differences. For instance, when I asked him about the variance he observed while conducting post-Katrina versus post-Sandy research, he said:

"Sandy was largely a middle class disaster," Abramson said. "New Jersey is one of the wealthiest states, per capita, and quite different socially and culturally from the Gulf Coast states as well. It is very interesting to compare Sandy data to that of other disasters, because when we bring together all these datasets, you can distill the effects people endure regardless of income, regardless of class, and regardless of social strata."

The Sandy Child and Family Health study, an ongoing project modeled on the Hurricane Katrina and Deepwater Horizon Oil Spill studies, examines the potential long-term effects of Superstorm Sandy on the health and well-being of New Jersey residents exposed to the storm. It also looks at the ongoing needs of affected residents and investigates how well people and households are recovering.

The project is co-led by Abramson and Donna VanAlst, a member of the School of Social Work faculty at Rutgers University. In addition to NYU and Rutgers, the study also involves academic partnerships with Columbia and Colorado State Universities, and is funded by Social Services Block Grant monies under the direction of the New Jersey State Health Department. The study team established a Public Partnership Group that includes the central gov-

ernmental agencies involved in health and human services response and recovery (New Jersey's Departments of Health, Children and Families, and Human Services).

"These state agencies want to understand the impacts of a storm like Sandy on their residents so they can prepare for future events," said Abramson, "and they want to know what worked and what didn't work. They are also determined to understand the hurricane's lingering effects."

Abramson and his team are producing four reports for the project, each building upon the other. The first report analyzes the impact of the disaster on residents' homes, and the decisions they made leading up to the storm; the second report examines Sandy's effect on residents' health and well-being, the third report sheds light on unmet needs and service gaps; and the fourth report looks at how adults as well as children are recovering and what paths to recovery were facilitated or impeded.

Over a nine-month period a team of nearly three dozen New Jersey-based interviewers enrolled and interviewed the 1,000 randomly sampled residents in to the study. These respondents represent the attitudes and experiences of the 1,047,000 residents living in Sandy's "Disaster Footprint" along the state's eastern flank. Wave 1 of the data collection is complete, and Abramson and his team have now moved on to resurvey and the same residents for Wave 2 of the study.

SHOREline

Combining project-based learning, community service, and opportunities for high school-aged youth to build connections with local and national leaders, the SHOREline Project, which was launched in 2013, is intended to help young people within their own communities as they strive to help others.

Abramson and Peek, as part of a community engagement effort after the Deepwater Horizon oil spill, visited a number of communities to examine the disaster's impact. Peek and Abramson had noted time and again in their research how much children and youth wanted to contribute to recovery and rebuilding efforts, but there often was no such space available for them to do so. Fortunately, as of late, there has been a considerable groundswell in the disaster science community to engage youth directly in their own empowerment and recovery.

Abramson and Peek seized upon the idea for a research-to-action project after they completed a four-state survey along the Gulf Coast exploring the impact of the oil spill on children's health. Among the 1,437 parents and caregivers they surveyed, one in five reported that their children had experienced mental health distress since the oil spill and nearly the same number reported physical ailments such as skin or breathing problems. Beyond that, though, the two researchers heard many stories of forestalled futures and shortened horizons for a number of children in the Gulf Coast.

"We identified five different communities, and for each of these communities, we made a poster that was built on

survey work done across four states," Abramson said. "We went to these communities, and met with focus groups—kids, parents, teachers, community leaders, doctors, and nurses—and we showed them the poster and said 'these are the numbers, tell us the story behind these numbers.'"

The interviews revealed that parents and community leaders worried about eroding safety nets for children and about the loss of local opportunities.

"One of the community leaders we interviewed summed it all up when she said, 'The only thing for kids to do around here is to go fishing, get high, or get pregnant, and you can't go fishing anymore,'" Abramson said. In fact, in this community nearly one in ten of every high school girl was pregnant.

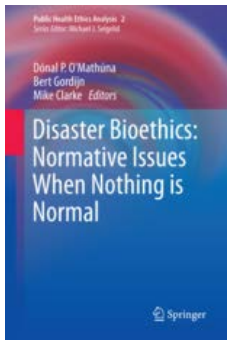
The SHOREline program addresses these lack of opportunities for youth as well as responds to their own expressed desire to be engaged in their own recovery. So far, the program has been a huge success. After debuting in five high schools in the Gulf Coast, two New York City schools—the Urban Assembly School for Emergency Management and the Urban Assembly Maker Academy—have recently been added to the project. Peek and Abramson are also looking to add schools affected by flooding and fires in Colorado and Superstorm Sandy in New Jersey over coming months.

"ONE OF THE COMMUNITY
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It doesn't stop there. In order to create a sustainable model, Abramson and Peek are working with high school teachers, their Gulf Coast field team, and graduate students at Colorado State University to design a core curriculum while building up a network of high schools.

"We have big visions," Abramson said. "In the nearby future we want to establish a national network of youth helping youth recover from disaster."

This mission is one of the central themes of the new NYU program. "'Population impact' has a double-meaning," said Abramson. "It's not only about the impact that disasters have on children and on communities. It's also about the impact that communities and children can have on the world around them."



Disaster Bioethics: Normative Issues when Nothing is Normal
 O'Mathúna, Dónal P.; Bert Gordijn, Mike Clarke, (Eds.), 2014,
 ISBN 978-94-007-3864-5,
 219 pages, \$129.00,
 Springer Netherlands

By Nathalie Baker

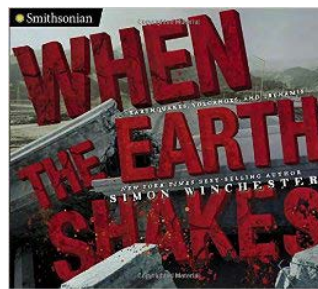
This edited volume brings together an interdisciplinary array of scholars from around the world to discuss disaster bioethics. The 13-chapter volume is divided into two sections. The first one covers questions of health care ethics in disasters and the second focuses on disaster research ethics. The book's main goal is to foster discussion on ethics in those two spheres, rather than to provide a comprehensive overview or a greater theoretical contribution.

The book offers an insightful examination of some neglected topics within the larger study of disasters that warrant inquiry. For example, one chapter suggests that a macro-ethical approach to disaster bioethics is required to determine what is best for the victim. Another argues that "ethical entry" into disaster-affected communities should be considered mandatory by those who work in these settings in order to avoid further negative impacts on disaster survivors.

Particularly interesting are both the direct and indirect discussion of morality throughout much of the book, which is a fundamental consideration within the context of

ethics, but little studied within the context of disaster research. Such discussions can provide needed insight into how fieldwork can be approached in ways that are more culturally competent. For instance, the book criticizes how researchers and aid workers study and treat disaster 'victims.' One of its main arguments is that people affected by disasters should not be deemed passive 'subjects' of study, but rather as active participants. The ability to carry out work in the aftermath of a disaster is a luxury for the researcher, but traumatic for the victim. This volume argues that scholars and practitioners must place primacy on respect for participants, rather than on more self-serving motivations, such as the idea that practitioners are saving lives.

Disaster Bioethics is a much needed contribution to a field that struggles with how to carry out research in extreme situations. It should be read, at the very least, by any scholar or practitioner who wishes to conduct fieldwork in disaster research.



When the Earth Shakes: Earthquakes, Volcanoes, and Tsunamis

Simon Winchester, 2015
 ISBN 067-07-853-69
 80 p., \$18,99
 Viking Books for Young Readers

By Elke Weesjes

Aimed at a teenage audience, this book about disasters that "make the earth shake" is written by Simon Winchester, a *New York Times* best-selling author. Winchester is primarily known as a journalist—he worked for *The Guardian* for decades and covered the Troubles in Northern Ireland and the Watergate Scandal in the United States among many other events—but was originally trained as a geologist. At Oxford University, England, he became involved in the University Exploration Club, and was a member of a six-man sledding expedition onto an uncharted section of the East Greenland icecap in 1965. After finishing his degree he joined the Canadian mining company Falconbridge of Africa where he worked as a field geologist in Uganda.

When the Earth Shakes, is based on Winchester's experiences as a geologist and as a journalist. He takes the reader on an exciting journey to places where he himself has gone to explore the wonders of geological forces and explains to his readers how earthquakes, volcanoes, and tsunamis are inextricably intertwined.

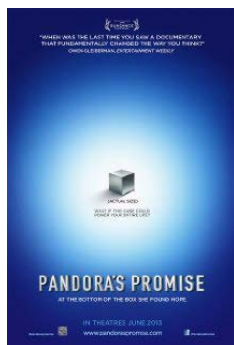
Weaving together personal narrative, scientific knowledge, and history, Winchester explores infamous natural disasters that made the planet shake, explode and flood. From the 1883 volcano eruption on Krakatoa, Indonesia



and the 1906 San Francisco earthquake that destroyed 80 percent of the city, to the 21st century tsunamis that devastated Indonesia and Japan.

Winchester reminds his readers that all of these events are natural disasters and, however horrible, they are a normal part of the functioning of the planet Earth. He calls on them to be responsible custodians of the planetary resources and respect the way the planet itself operates. He ends with a warning: "We inhabit this planet subject to geological consent—which can be withdrawn at any time, and without notice."

This book—richly illustrated with beautiful historical and contemporary photographs, maps, diagrams, and charts—might be written for 10 to 16 year-olds, but it is equally fascinating for any adult interested in the devastating and powerful natural forces that shape the earth.



Pandora's Promise
 Director Robert Stone
 2013, 87 minutes

By Elke Weesjes

It doesn't happen very often that longtime supporters of a scientific theory or social cause reconsider their stance and do a public one-

eighty. Yet, this is exactly what the well-known and respected environmentalists in *Pandora's Promise* have done. *Whole Earth Catalog* publisher Stewart Brand, Pulitzer Prize-winning A-bomb historian Richard Rhodes, *New Yorker* journalist Gwyneth Cravens, English eco-activist Mark Lynas, and environmental policy expert Michael Shellenberger all revised their firm opposition to nuclear power. They now argue that nuclear power might actually be safer, cleaner, and greener, than other energy sources.

The though-provoking documentary *Pandora's Promise* is built around the narrative of these converts and makes the case for the use of nuclear energy as a better option than coal or oil.

The film starts off with a discussion of the alternatives to the unsustainable use of fossil fuels and concludes that solar and wind power are undependable and the technology neither financially feasible nor capable of delivering enough power for an increasingly energy hungry world. In addition, according to the film, wind turbines require natural gas as back up, solar panels are toxic to produce, and natural gas has unfortunate environmental consequences—for example the leakage of methane, a far more potent global warming gas than CO₂. In an attempt to win viewers over, the film makes one particularly intriguing assertion: nuclear power is not as deadly as many opponents assume. In fact, it claims that nuclear power is second only to wind turbines in terms of safety. Apparently

many more people are killed by burning coal or manufacturing solar panels.

The film insists that public perception of safety of nuclear power bears little relation to reality. Many misconceptions are perpetuated by people like physician and anti-nuclear activist Helen Caldicott, who is shown lecturing a crowd about the million people who died as a result of the 1986 Chernobyl disaster. She is followed by the articulate and soft spoken Richard Rhodes who carefully reminds the viewer that Caldicott's claims aren't based on scientific evidence. Citing *The Chernobyl Forum*, a United Nations' report, he notes that the damage caused to people by the fallout was remarkably limited. In total, 56 people died as a result of Chernobyl and an estimated 4000 people have shorter life expectancies, according to this report.

Pandora's Promise also debunks a number of other myths about nuclear power, from the dangers of low levels of tritium in drinking water, to the correlation between congenital malformations and radiation.

Overall filmmaker Robert Stone, makes an compelling argument for the use of nuclear power, and even though *Pandora's Promise* will not convince everyone, it is a welcome and above all refreshing contribution to the nuclear energy debate.



The Atomic States of America
 Directed by Don Argott and Sheena M. Joyce
 2012, 95 minutes

By Elke Weesjes

In 2010, the United States approved the first new nuclear power plant in 32 years. As part of what was called a nuclear renaissance, nuclear energy was heralded by experts and by President Obama as the answer to climate change. This renaissance abruptly ended when a year later the Fukushima accident in Japan renewed a fierce public debate about the safety and viability of nuclear power. Between these two events, filmmakers Don Argott and Shenna M. Joyce began filming *The Atomic States of America*, a documentary about the safety of nuclear power reactors. They explore what it is like to live in a so-called reactor community and give a detailed overview of the history and impact of nuclear power.

The documentary is based on Kelly McMasters' book *Welcome to Shirley* (2008), a memoir about growing up in the shadow of the Brookhaven National Laboratory on Long Island. Brookhaven—established in 1947—had three nuclear reactors on its site for scientific research. In January 1997, ground water samples taken by Brookhaven staff revealed concentrations of tritium—a radioactive type of hydrogen—that were twice the allowable federal drinking water standards. Some samples taken later were 32

times the standard. It was concluded that the tritium was leaking—and had been leaking for 12 years— from one of Brookhaven’s reactors into the aquifer that provides water for nearby Suffolk County residents. In her book, McMasters discusses the many health consequences, including a childhood cancer cluster, documented by the people living in Shirley.

Besides exploring the evidence gathered by McMasters, the film also looks at other communities situated near nuclear facilities. The residents of these communities call into question who can be trusted to provide truthful information, and how much influence the nuclear industry has over the Nuclear Regulatory Commission (NRC) and its decisions.

Residents are particularly concerned about the fact that the NRC has re-licensed virtually every single plant that applied for a new license. The majority of the United States’ commercial reactors were built in the 1950s and 1960s and were, structurally, only supposed to last for 30 years. However—despite the aging internal structures of the reactors—the NRC has been re-licensing such plants for twenty or thirty more years.

In an interview with *Film Maker Magazine*, Directors Argott and Joyce said that their goal with *The Atomic States of America* was “to take the intimidating topic of nuclear power, and to make it accessible and personal by telling the individual stories of people living in reactor communities, working as NRC inspectors, and advocating on both sides of the issue.” This goal isn’t exactly met. Even though they’ve included interviews with a couple of NRC inspectors and a former government leader, activists are the bulk of the interview subjects. Furthermore there is a serious lack of hard, epidemiological data to back up the claims made by activists and residents of reactor communities. To achieve a more balanced account, the filmmakers should have included more voices from the pro-nuclear energy camp and nuclear and medical scientists. Nevertheless, *The Atomic States of America* is a passionate and well-made film that keeps the conversation going about a topic that is so often dominated by money and politics, but affects us all.



Natural Hazards Library

THE LIBRARY IS an extensive collection of resources that focuses on the social dimensions of natural hazards and disasters.

The collection provides a wide spectrum of information for both researchers and practitioners. Regardless of discipline, it provides practical, applied, and academic support to those in need of disaster knowledge.

What’s happening in the Library:

- Thanks to funding from the University of Colorado’s Institute of Behavioral Science, the library has moved part of its collection to cyberspace and is working to make full-text copies of titles available through the new HazDoc repository. The project is expected to be completed sometime in 2016.
- We encourage all researchers and authors to join the Open Access movement! While we work out copyright and digital ownership issues for proprietary material, submitting a prepublication copy of your work for inclusion into HazDoc will allow it to be freely shared with others in the hazards and disaster community. For more information contact Wanda Headley at 303.492.5787; wanda.headley@colorado.edu.
- HazCat is a fully functioning online public access catalog that allows users to more easily find and access full-text titles. HazCat will be making its public debut in the Fall of 2014.

July 21-24, 2015

**11th Canadian Conference on Earthquake Engineering
Canadian Association of Earthquake Engineers (CAEE)
Victoria, Canada**

Cost and Registration, \$800, open until filled

This conference will address the many aspects of earthquakes and their impact on society. Topics include seismic hazard and seismology, tsunami hazards, codes and standards, geotechnical hazards, structures, societal impacts and Risk Management, and Monitoring.

August 10-11, 2015

**Hurricane Sandy Conference
U.S. Department of Health and Human Services
New York, New York**

Cost and Registration: Free, open until filled

This conference will discuss the research outcomes of a two-year series of Hurricane Sandy research grants issued by HHS Office of Preparedness and Response, the U.S. Centers for Disease Control and Prevention, and National Institute for Environmental Health Sciences. Topics include various research on Hurricane Sandy, as well as strategies to build preparedness and resilience, translating research into practice, best practices in public health, and effective risk management.

August 10-11, 2015

**Emergency Restoration Logistics Conference
Electric Utility Consultants Inc.
Boston, Massachusetts**

Cost and Registration: \$1,595, open until filled

This conference will focus on responding to electrical outages caused by natural hazards. Topics include collaboration between utilities and state and federal agencies, logistics following a catastrophic event, a case study of Hurricane Sandy, timely decision making for emergency managers, and effective internal workforce management.

August 16-19, 2015

**APCO International Annual Conference
Association of Public-Safety Communications Officials
Washington, D.C.**

Cost and Registration: \$650 before July 20, open until filled

This conference will focus on providing knowledge and training for better safety communication. Topics include procedures for frontline communicators, issues in communications center management, emergency preparedness, response and situational awareness, relevant trends in radio technologies, and operational responses to major events.

August 24-25

**California Climate Change Symposium 2015: Using Climate Science to Plan for a Resilient Future
Climate Resolve**

Sacramento, California

Cost and Registration: \$150, open until filled

This event will bring together state and local agency research managers, policy makers, practitioners, and members of California's climate change research community to explore ways to translate cutting-edge climate science into practical actions to ensure a better future for the Golden State.

September 09-10

**Disaster Risk Reduction 2015 - 30th Annual DMISA Conference
Disaster Management Institute of Southern Africa
Western Cape, South Africa**

Cost and Registration: \$550, open until August 3

The conference of the Disaster Management Institute South Africa is the biggest annual disaster management conference in Africa. This year's theme is "the 2030 resilience, sustainability and adaptation mandate: a new action agenda for disaster risk reduction." The theme is inspired by the outcomes of the Sendai Third World Conference on Disaster Risk Reduction, which includes the 18 March 2015 release of the Sendai Framework for Disaster Risk Reduction 2015-2030.

September 14-18, 2015

**37th Conference on Radar Meteorology
American Meteorological Society
Norman, Oklahoma**

Cost and Registration: TBA on Web site <https://www.ametsoc.org/meet/fainst/201537radar.html>

This conference will introduce attendees to National Science Foundation observational research platforms and how they can be used to promote field campaigns and education. Conference topics include new and emerging radar technology, microphysical studies, mesoscale and severe weather, airborne and spaceborne radars, and the use of radar data for Nowcasting and NWP Models.

October 15-16

**2nd Disaster Risk Reduction Conference
Faculty of Geography and Regional Studies, University of Warsaw
Warsaw, Poland**

Cost and Registration: \$186, open until July 31

The aim of this conference is to share knowledge and experience among theoreticians and practitioners and identify the key problems of Disaster Risk Reduction with particular consideration of social aspects and uses for new analytical methods. It will cover the following issues: extreme phenomena in the changing environment, natural disaster risk management, social and economic aspects of natural disasters, reduction of the effects of natural disasters in local and regional solutions, and the role of the state and civic responsibility.

Below are descriptions of some recently awarded contracts and grants related to hazards and disasters. Please see <http://www.nsf.gov/awardsearch/> for more information.

Collaborative Research: Quantitative Reconstruction of Past Drought Patterns in Western North America Using Lakes, Stable Isotopes, and Modeling

Award Number: 1446329. Principal Investigator: Michael Mann. Organization: Pennsylvania State University. NSF Organization: EAR. Start Date: 02/15/2015. Award Amount: \$67,126.00

Collaborative Research: Landslides caused by the April 2015 Nepal earthquakes, from immediate hazard to tectonic driver

Award Number:1546630. Principal Investigator: A Joshua West. Organization: University of Southern California, NSF Organization: EAR. Start Date: 07/01/2015. Award Amount: \$52,737.00.

Analysis of the May 2015 Texas Flood with a Connectivity Framework and High Resolution Topography Data

Award Number: 1547200, Principal Investigator: Paola Passalacqua. Co-Principal Investigator: David Mohrig, David Maidment. Organization: University of Texas at Austin. NSF Organization: EAR. Start Date:07/01/2015. Award Amount: \$22,639.00.

Conference: Infrastructure and ecosystem adaptations in the face of global climate change; Baltimore, Maryland, August, 2015

Award Number: 1541324. Principal Investigator: Sue Silver. Co-Principal Investigator: Kristina Hill. Organization: Ecological Society of America. NSF Organization: DEB Start Date: 07/01/2015. Award Amount: \$45,000.00.

Collaborative Research: Post-Disaster, Reinforced Concrete Building Performance Data Collection following the April 25, 2015 Nepal Earthquake

Award Number:1545595. Principal Investigator: Andreas Stavridis. Organization: SUNY at Buffalo. NSF Organization: CMMI. Start Date: 07/01/2015. Award Amount: \$24,040.00.

2015 Graduate Climate Conference (GCC); Woods Hole, Massachusetts; November 6-8, 2015

Award Number:1542590; Principal Investigator: Raffaele Ferrari. Organization: Massachusetts Institute of Technology. NSF Organization: AGS. Start Date: 07/01/2015. Award Amount: \$20,000.00.

Collaborative Research: Nepal Array Measuring Aftershock Seismicity Trailing Earthquake

Award Number: 1545933. Principal Investigator: Marianne Karplus. Co-Principal Investigator: Aaron Velasco. Organization: University of Texas at El Paso. NSF Organization: EAR. Start Date: 06/15/2015. Award Amount: \$131,790.00

Forensic Hydrological Field Investigation of the Blanco River Flood - May 2015, Wimberley, TX

Award Number: 1548215. Principal Investigator: Chad Furl. Organization: University of Texas at San Antonio. NSF Organization: EAR. Start Date:07/01/2015. Award Amount:\$26,531.00.

Investigating the Link between Fluvial Flood Events, Remobilization, and Preservation in the Stratigraphic Record along the Northwestern Gulf of Mexico Continental Shelf

Award Number: 1548598. Principal Investigator: Joseph Carlin. Co-Principal Investigator: Timothy Dellapenna. Organization: California State University-Fullerton. Foundation; NSF Organization: EAR. Start Date:09/01/2015; Award Amount: \$24,968.00.

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Student Paper Competition Winners Announced

The Natural Hazards Center is pleased to announce the winners of the 2015 Hazards and Disasters Student Paper Competition. The competition was established in 2004 to recognize undergraduate and graduate students who conduct research on interdisciplinary hazards and disaster. The papers submitted this year showcased promising research on topics such as gender, climate change hazard mitigation, pandemic illness, transportation in emergency response, and disaster recovery. Winning papers, however, displayed outstanding originality and data collection and analysis, as well as a well-organized thesis and argument.

Two graduate student winners were chosen:

- Hannah Rebecca Zulch, Griffith University: Psychological Preparedness for Natural Disasters—Improving Disaster Management Theory and Practice
- Yin-Hsuen Chen, University of Florida: Multi-Scale Vulnerability Assessment of Surge and Wind Hazards In Coastal Communities—Venice Island, Florida

Winners will each receive \$100, publication on the Natural Hazards Center Web site, and an invitation to the 2015 Annual Natural Hazards Research and Applications Workshop in Broomfield, Colorado.

The 2016 call for papers will be announced early next year.

For more information visit:

<http://www.colorado.edu/hazards/awards/paper-competition.html>

AIC and CAC-ACCR 2016 Annual Meeting: Call for Papers and Workshop Proposals

The theme for the American Institute for Conservation of Historic and Artistic Works's 44th Annual Meeting, held jointly with the 42nd Annual Canadian Association for Conservation Conference, in Montreal, Canada, May 13-17, 2016, will be Preparing for Disasters and Confronting the Unexpected in Conservation.

Colleagues are invited to submit abstracts that address in a broad-based way the impact of past, present, and future disasters on the protection of cultural property. In addition, papers that address confronting the unexpected in conservation whether it occurs during the treatment of an artifact or during a natural disaster are requested.

The Collection Care Network (CCN) of the American Institute for Conservation seeks abstracts that explore the partnerships crucial to successful emergency management for their session. Papers may speak to any emergency man-

agement phase, be it preparedness, response, recovery, or mitigation. Topics might include collaborations between cultural and emergency managers in training, architectural modifications to prepare museum structures for climate change, modeling sea rise, and health and safety issues in remediation of cultural heritage structures.

For more information visit <http://www.conservation-us.org/abstracts>.

Deadline: September 14, 2015.

Wanted Co-primary Investigator for Nepal Study

Save the Children is recruiting for a co-primary investigator with a background in public health/epidemiology to look at the causes of deaths and injuries in Nepal, for the purposes of evidence-based public education. Nepali-speaking preferred. Experience in South Asia a possible substitute.

For more information contact Marla Petal, Senior Advisor Education and Disaster Risk Reduction, Save the Children. Email: marla.petal@savethechildren.org.au

Wanted Technical Librarian

The Natural Hazards Center is seeking a versatile, well-rounded technical librarian with solid cataloguing skills and the ability to develop and maintain a complex information architecture. The successful candidate will drive the migration of records to DSpace cataloging system, develop and maintain library, customer, and Web site information systems, and create coded data management interfaces.

See the posting on the CUJobs Web site (<https://www.jobsatcu.com/postings/97110>) and upload a letter of application, resume, statement of salary, proof of degree, and three professional references. Only candidates selected for an interview will be contacted. Review of materials will begin immediately and continue until the position is filled.

Proceedings of Third UN World Conference on Disaster Risk Reduction Now Online

The proceedings of the Third UN World Conference on Disaster Risk Reduction are now available in English. The publication can be found online at:

<http://www.preventionweb.net/english/professional/publications/v.php?id=45069>

Our Shop:

Readers Explain Their Organizations

Since becoming editor of the Observer in December 2014, many people have asked to publish pieces about a program or an organization they are involved in. While the Observer hasn't typically run articles of this type, it occurred to me that these enthusiastic descriptions of hazards and disasters work could be as interesting to readers as they are to us. With that in mind, I decided to create a returning feature where people can let others know about their programs and the work they do. Welcome to the first installation of Our Shop, submitted by A. J. Faas of the Society for Applied Anthropology. Read to the bottom to learn how you can submit to Our Shop.

IN THE PAST 50 YEARS, the anthropological study of disaster has become a diverse and robust field of inquiry. Anthropologists have long joined scholars and practitioners of all disciplinary stripes to influence policy and practice in disaster prevention, mitigation, response, and recovery. In recent years, the growth and development of the anthropology of risk, hazards, and disasters has been nowhere more evident than in the Society for Applied Anthropology (SfAA).

Two years ago, at the 73rd Annual Meeting of the SfAA in Denver, a loosely organized group of disaster anthropologists put together nearly two dozen panels featuring more than 100 papers on the topics of risk, hazards, and disasters. To those of us involved, it became clear that disaster research had become a major field of interest among applied anthropologists. We wanted to sustain the momentum and organize more formally. In the summer of 2013, we officially formed the Risk and Disasters Topical Interest Group (TIG) within the SfAA. At the 74th Annual Meeting of SfAA in Albuquerque, New Mexico, we organized even more panels and papers than the year before and held our first official meeting as a TIG.

This year's meeting, which took place in March, featured 22 Risk and Disaster TIG-sponsored panels and 114 papers. Our members seized on the conference theme—Continuity and Change—to have a series of focused conversations about the state of risk and disaster theory and practice. We organized a plenary panel comprised of established and emerging leaders in the field to consider a series of discussion topics.

As many working in disasters are aware, we often observe combinations of persistence alongside rapid changes in human behavior and relationships as crises unfold. These processes often reveal a great deal about the societies and groups affected by disaster. Plenary panelists discussed the various types of social and cultural continuities and changes they have witnessed in disaster contexts, how they've explain them, and how it has influenced the the advice they've given to policy makers and practitioners.

The group reflected on how the fields of risk and disaster research and practice have changed. Finally—because threat of catastrophe looms over the communities where social scientists work—the panel talked about how to better prepare and assist the broader research and practitioner communities to work in disaster contexts. We plan to publish a transcript of this panel by Fall 2015.

One key activity for the Risk and Disaster TIG in the future is to facilitate engagement with practitioners, scholars, and disaster-affected communities in and beyond the SfAA. Activities in this area will include inviting practitioners, grassroots organizers, and scholars outside the United States to join us for colloquia and workshops at the SfAA Annual Meeting. We would also like to better engage disaster-affected communities in several ways. First, we would like to identify and visit communities in the vicinity of our annual meetings to see if we can identify opportunities for collaboration. Second, we are exploring potential partnerships with NGOs and federal agencies so that we can serve as a liaison between them and experienced anthropologists who have relevant geographical and topical knowledge when crises arise.

The first of these is a partnership with the U.S. Department of Interior Strategic Sciences Group (SSG). In this partnership, the SfAA joins the Natural Hazards Center and more than twenty professional societies and academic centers to create a network of scholars who can be called upon by the SSG to rapidly deploy multidisciplinary teams that will advise practitioners and policy makers during environmental crises.

Members of the Risk and Disaster TIG are also working on several publication projects. We have two significant publishing projects: a special issue of *Human Organization* on risk, hazards, and disasters (expected at the end of 2015) and a new book series, *Catastrophes in Context*, on engaged social science in disasters by Berghahn Books. The first book in the series, called *Disasters without Frontiers*, is expected in Spring 2016.

Our intention is to continue building a TIG with broad appeal, whose activities are effective in fostering the growth and development of scholars and practitioners. There are a number of ways to get involved with the Risk and Disasters TIG. Please join the TIG listserv by following the links on the SfAA website (<http://www.sfaa.net>). Follow us on Twitter at @RiskDisasterTIG or join our Facebook group. Once you have joined, we would encourage you to start sharing and participating in our discussions.

To feature your organization in Our Shop, please contact Elke Weesjes at elke.weesjes@colorado.edu. Submissions will be published at our discretion.



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Support Center Operations—Provide support for core Center activities such as the DR e-newsletter, Annual Workshop, library, and the Natural Hazards Observer.

Build the Center Endowment—Leave a charitable legacy for future generations.

Help the Gilbert F. White Endowed Graduate Research Fellowship in Hazards Mitigation—Ensure that mitigation remains a central concern of academic scholarship.

Boost the Mary Fran Myers Scholarship Fund—Enable representatives from all sectors of the hazards community to attend the Center's Annual Workshop.

To find out more about these and other opportunities for giving, visit:

www.colorado.edu/hazards/about/contribute.html

Or call (303) 492-2149 to discuss making a gift.

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