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PRACTICES AND CURATIONS

Women and Water: An Art-Based Academic-Community Partnership

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WOMEN AND WATER IN WEST VIRGINIA

Women's environmental activism in Appalachia started in the 1970s in response to coal mining which was polluting waterways and, as a result, tap water. Fast forward 50 years, women are still at the head of the majority of environmental organizations and volunteer watershed groups in West Virginia (WV). Currently, they are active in WV in the fields of water policy and advocacy, source water protection, pollution prevention and remediation, conservation, and environmental education. They work on restoring waters affected by acid mine drainage and battling for stricter water protection regulation in a state where coal mining goes hand-in-hand with hydraulic fracturing, gas pipelines buildout and petrochemical plants (Caretta 2020).

Starting in 2017, we carried out semi structured interviews with 25 of these women to understand the motivations that lied behind their care volunteer work and what kept them going. We noticed, because of our snowball sampling, that all these women, and more, knew each other and knew of each other, but they were not part of a formalized network, as often is the case of women in the industry or private sector. Given the participatory nature of the research that we carried out (Caretta 2020), we asked participants to suggest how my research project could support them in their efforts to clean and preserve water in WV. Women said they wanted to spend time together, share their concerns and the frustration they experienced in carrying out such emotional work opposed by politicians and often their neighbors. They thought this time together could lead to the formation of a network. Our institution, at the time, had available funding for collaborations with civil society. We sought that funding and were awarded it to organize a weekend of networking. Together with a handful of women co-organizers, when thinking about how to structure that one weekend, we came up with the idea of having an icebreaker with a boundary object, a piece of art or an artifact that women could present to describe themselves

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and their connection with water. One of the co-organizers, who had prior experience in art curation, then said: “why not organize an art exhibit to showcase the importance of women’s care work as water stewards in West Virginia?.” At the time, the WVU University Library had a call for exhibits, and we were able to secure funding from the National Science Foundation (NSF) to cover the costs of the exhibit and have an inaugural night.

Contributing to argue that geography is in a prime position to be engage with art-based methods (Urbanik and DiCandeloro 2020; von Benzon et al. 2021; Kelly, Lally, and Nicholson 2023), with this piece we provide an incitement to our fellow academics to engage with art in participatory geographical research as a learning experience that can overturn the common researcher-researched power dynamics.

A BOUNDARY OBJECT—TO SIGNIFY WOMEN’S CONNECTION WITH WATER

In September 2018 we, together with three women heading the three most known water protection NGOs of WV, organized a weekend which we called “West Virginia Women and Water Network Kick-off Meeting.” While the funding for this meeting was acquired through WVU to facilitate engagement with civil society, most of organizing for the weekend was done by our community partners. Thirteen women working, most in volunteer capacity, in different watershed organizations in the state agreed to participate to the weekend. While the overall goal of weekend was to create a formalized network of women volunteering in water organizations around the state, alike to women’s networks in industry, in this piece we focus on one specific activity we did at the very beginning of that weekend. Women mostly all knew each other, some had friends in common but did not directly knew each other, so an icebreaker activity was organized so they all could become acquainted with one another. Women had received an email invite including this request:

For our kick-off ice breaker activity Friday evening, please bring a piece of art (photograph, 2D, 3D, found objects ... any media!) that reflects on or represents your experience as a woman working for water justice issues, or the relationships and intersections between gender and water in West Virginia. Share a work of art that has special significance to you, or show us a creative work that you made. The art can be as simple as a photograph you took or a piece by another artist that resonates with you.

Using a boundary object, and particularly a photo or an artifact, to share one’s identity or experiences is a way to elicit memories, while also feeling less stress about talking about oneself (Pyry, Hilander, and Tani 2021).

Here we present a few of these boundary objects coupled with research participants’ direct quotes in the captions. These are representative of the themes that emerged from those 13 women’s narratives about themselves.

This spot also has special significance for me, because my great-grandfather, grandfather, and father all camped and fished there as they were growing up. I had my first child this year, my only child. My sister and I both waited until later in life to have our families. It’s important for us to have them by the water a lot and that’s why I chose this piece.

This picture was taken in 1994 and this was the first time that my father took me white water rafting. Right out of high school my first job was actually with the rafting company that took us down the river

that day. Then started volunteering at this local fantastic fundraiser in my hometown the cheat river festival and stayed with that a long time. Life just kept sucking me back to this river.

I moved to West Virginia to be pretty far away from large bodies of water, but the state has so much water that your kind of don't miss that feeling. But I would like to leave something for future generations. Right now the way things are going, it literally sucks. Every time you turn around something else is getting destroyed. The resources here in West Virginia, one of the greatest ones was water, and it is slowly becoming a lost thing. A quilt that I made, and it is my version of a tree of life. This is all basically hand applique, the fabrics in the tree itself were all materials from clothing that I or my daughter had. It's all hand done, it's all hand quilted. It's kind of like a picture but on the reverse side the form is there, it's been colored in.

These three examples (Figures 1–3) bring up central themes that kept on repeating themselves throughout the weekend. Women had chosen to get involved with this unpaid care work because of their desire to preserve the environment around them for intimate personal reasons. They felt like their parents had passed on the connection with water to them (Figure 2) and they wanted to make sure their children could experience the same (Figure 1). They were frustrated because they were witnessing environmental destruction around them, jeopardizing not only their current quality of life, but also that of future generations. The example of the quilt (Figure 3) is emblematic: although the hills of West Virginia are beautiful and people choose to move there because of their idyllic nature, they also have a dark side of natural resources exploitation and plundering.

The stories that these women shared with us are emblematic of the motivations behind their engagements in water stewardship and reflect the history of women's engagement with environmental protection in West Virginia. West Virginia's history has been characterized by consistent natural resource extraction through logging, coal mining and more recently hydraulic fracturing. For the past century, men have been involved in the work of extraction and women stayed home and have been the first ones to realize that the water turned orange, smelled weird, or the tap run dry. Because of their domestic reproductive role women, who had historically congregated through quilting circles and community volunteering activities, started attending in the 1970s the Environmental Protection Agency hearings in their community, conveniently organized during lunch time so that the majority of the affected communities could not participate, but women could (Bell and Braun 2010; Smith 2015). Fast forward 20 years, women are still at the forefront of the environmental protection battle that is constantly taking place in WV (Caretta 2020). Importantly, these women and their care work in WV are not unique, they embody countless women around the world that head movements for the preservation of water (e.g. Mandara, Niehof, and Van Der Horst 2017; Caretta et al. 2020).

ART EXHIBIT—TO COMMUNICATE THE SIGNIFICANCE OF WOMEN'S CARE WORK

One of the women environmental leaders co-organizing the weekend was an art enthusiast, and since the idea of sharing artifacts in the ice breaker came up, she had toyed with the idea of organizing an art exhibit to showcase the work of women working in water in West Virginia. At the same time, the WVU Library had a plan to organize exhibitions in the library and the librarian in charge suggested that there was an NSF funded initiative Consortium of Universities for



FIGURE 1 Sister and son (photo by research participant, shared with consent).

the Advancement of Hydrologic Science, Inc. (CUAHSI) which had grants available called “Let’s talk about water.” We were able to secure 3000 USD funding from CUAHSI and with that amount we put together an exhibition, an opening night featuring a poet and a live art performance, and two discussion panels.

The exhibit featured approximately 20 photos, paintings, and sculptures collected, and in some cases created, by WV women water stewards. We approached the curation of the exhibit with a sense of care (see also Smith, Church, and Geoghegan 2021) as we wanted the imagery to convey women’s experiences around water in WV with the accompanying narrative panels narrating with their voices their personal descriptions of the relevance of each woman’s submitted works. Our intention for the exhibit was to include every piece discussed during the icebreaker, if



FIGURE 2 Dad (photo by research participant, shared with consent).



FIGURE 3 Quilt (photo by author).

the contributor wanted their artwork to be included. Only pieces with copyright issues or pieces that were too fragile to be included were not featured. Thematically, the ice breaker pieces felt cohesive as an exhibit, as discussed in the previous section, many of the pieces reflected women's familial and intimate personal connections with water. Another clear theme that emerged was the

impact of the 2014 water crisis in WV. The exhibit was sectioned into two themes, one showcasing the aforementioned familial themes, and another dedicated to exploring the embodied experiences of water contamination in West Virginia as it pertains to gender. A significant part of the exhibit was dedicated to the water crisis that had taken place in Charleston, West Virginia in 2014. In January 2014 a chemical storage tank holding 300k gallons of a coal cleaning chemical leaked into the Elk River in Charleston WV which sat upstream of a drinking water intake that distributed water across nine counties. Little was known about the health effects of that chemical (Whelton et al. 2015). Women had in fact shared pictures and artifacts that showed the consequences of the spill and the organizing that had happened as a response to that crisis (Figure 4).

This is a photo of a resident of Cabin Creek, West Virginia. During the WV Water Crisis, not everyone could get to water distribution centers to cover their needs. In this photo, she had put out Tupperware containers to capture melting snow for water to bathe her children.

I'm also a survivor of the water crisis. There's my sign for those of us who went to the legislature at that time. There's a package of licorice and bottled water wrapped together because one of the things about the 2014 water crisis, this was not my idea. I cheated a little bit. One of my friends in the trail club sent me a picture of water and licorice but it is also put together there with the lyrics of Tim O'Brien's song about the water crisis.

I brush my teeth with Coca-Cola, wash my face with mountain dew

We live down in chemical valley, licorice water runnin' through,

Licorice water runnin' through

I know politicians care about me, lobbyists love me the same



FIGURE 4 Tupperware to capture snow. Photo credit Keely Kernan.

Jesus lord is watchin' over but I don't trust that EPA
 All is money, all is power, one man's loss is another's gain
 I just do the best I can, put out my bucket, pray for rain

(Tim O'Brien, 2014 – Brush my teeth with Coca Cola).

In Figures 5 and 6 and the song lyrics, women shared with us the tangible consequences that the chemical spill had for the residents of Kanawha valley of Charleston, West Virginia. Water tasted like licorice, and it was unsafe to drink so people that could not drive to water distribution centers had to resort to whichever possible method to get water for their daily chores. These images and narratives paint a situation where poverty and marginalization are prevalent and where authorities were connivant with the industry. These circumstances led women into organizing and protesting against the contamination of drinking water, as these photos and excerpts below show.

After the leak, WVFREE approached me about conducting listening sessions to hear from women on the ground how they were handling the situation. At six different sessions, I ask what their concerns were, what questions had not been answered for them, and what actions they wanted to see taken to resolve their frustrations. Women (and men) from all different walks of life attended.



FIGURE 5 Keep our water clean (photo by author, shared with consent).



FIGURE 7 LaBelle Theater townhall meeting (photo by research participant, shared with consent).

were involved in it, and how the situation could be resolved. The women water stewards we collaborated with were working day in, day out during this crisis to inform the public, organize distribution centers, and push politicians to find a solution as quickly as possible. As part of that, in [Figure 7](#), we see the LaBelle theater in Charleston, WV where a townhall meeting was organized with elected officials to hold them accountable about the chemical spill that had taken place.

What transpired from the artifacts that women decided to share for the exhibit was that the water crisis in Charleston had been a catalytic event for them that had enraged, engaged, and

exhausted them. The care work they put into this time had defined their identity and the role they felt they had in their communities. Yet, at that time and with the subsequent election of Donald Trump, lesser and lesser attention was given to issues of environmental and gender concern in Appalachia. Testimonies to this were: the call to review the Clean Water Act, the environmental consequences of its potential abolition, and the elimination of the West Virginia Women's Commission, which was the only existing agency concerned with the status of women and their leadership in the state (Friedman and Davenport 2019; D. Smith, "House Votes to Eliminate WV Women's Commission." West Virginia Press Association (blog), March 3, 2017, <https://wvpress.org/breaking-news/house-votes-eliminate-wv-womens-commission/>).

Thus, the goal with the exhibit titled "WATER: A Cross Disciplinary Exhibit Exploring the Significance, Power and Play of Life's Critical Resource" displayed at the WVU Downtown Library during Women's History Month in 2019 (Figure 8) was to contribute to moving beyond a narrative of victimization and exploitation of Appalachia and of the secondary role played by women in this region.

Beyond the exhibit, with the funding we were awarded we were able to organize two panels on the theme of women and water. The first one focused on "Women in water careers and professionalization" and featured invited speakers from state institutions, university and environmental organizations. The second one zoomed in on "Flint and Charleston: Drinking water pollution and its impact on women's health" to explore safe drinking water and reproductive health, featuring environmental organizers, faculty and women's reproductive rights organizers. The panels were very well attended by students at WVU, particularly female students.

The coverage that the exhibit had in the local state press (WVPB 2019) and the attendance of students was encouraging for women water stewards as they told us they felt validated in their efforts, but also for us as researchers who had strived to conduct participatory research from the beginning of the research process and were finally able to disseminate the findings to the wider public.

ART-BASED ACADEMIC-COMMUNITY PARTNERSHIP

The icebreaker and the art exhibition that we presented in this piece are the culmination of three years of participatory research foregrounded by trust and rapport building with these women water stewards. As feminist geographers we interpret our role as academics to be that of bringing to the forefront the situated knowledge of groups that have been historically marginalized. To be able to gather their lived experiences and make emerge their narratives, this process required time and care to get to know each other, facilitate an open and continuous dialogue and create a sense of shared responsibility and mutual respect and trust. Gaining this trust was a lengthy but rewarding process which culminated in these participant-led two art-based activities. While the stage of data gathering and analysis was led by us as researchers, it was during the weekend starting with the icebreaker that the dynamic changed, with participants leading the charge to share and disseminate their own stories. After the sharing their boundary objects, we facilitated a member checking discussion where we researchers shared the preliminary findings of the research project looking at women's motivations behind their care work. Member checking is a fundamental step in participatory research as it allows reaching transactional validity i.e. participants confirming the researcher's interpretation of the data (Caretta 2016). Sharing preliminary

WOMEN & WATER

A visual exhibit of photos, paintings and sculptures, curated by WVU Assistant Professor of Geography, Martina Angela Caretta; Geography MA student, Bethani Turley; Friends of Cheat Executive Director, Amanda Pitzer; and Media and Outreach Specialist, Beth Warnick



March 4, 5-7pm
Opening Reception Program:

Welcoming Remarks by Martina Angela Caretta,
 Assistant Professor of Geography

Welcoming remarks by Amanda Pitzer, Friends of the
 Cheat Executive Director

Welcoming remarks by Karen Diaz, Dean of WVU
 Libraries

Image descriptions by
 Maya Nye, Doctoral Candidate in Public Health, WVU
 Bethani Turley, Master Student in Geography, WVU

Reading by Affrilachian poet Crystal Good

Performance Introduction by Mountain Lakes
 Preservation member April Keating

Live Performance by artist Heather Schneider

More information: exhibits.lib.wvu.edu



Exhibit Sponsors:

Department of Geology & Geography at WVU



FIGURE 8 Exhibit poster.

findings kicked off a discussion among women themselves around women's organizing, their motivations, and their desire for a formalized network. From this point on, women took the lead and decided how they wanted their stories to be shared with the wider public and art was the means through which it was decided to do that.

In this concluding section we want to stress for our fellow academics some lessons we have learnt during this academic-community partnership to encourage others to follow suit.

First, boundary and art objects were able to bridge the power dynamic intrinsic in academic-community partnerships. Having been clear from the outset that we were not knowledgeable with regards to arts, diminished the cliff of epistemic authority between us researchers and women water stewards. Notably, we were also part of the icebreaker and shared personal insights of our connection with water. This, we argue, was a meaningful way to dismantle some of the inevitable power unbalances when carrying out research. While during the earlier stage of research design and interviews, women had gotten to know our feminist epistemological orientation, discovering another piece of our personal identity connected to water made our connection tighter and proved once more that we were committed to their stories taking center stage during dissemination.

Second, participatory research is demanding as it requires a constant and care-full engagement, but when open dialogue with community partners is established, the possibility becomes concrete for research to be significant also outside the academic ivory tower. Had we not approached this research project from a participatory angle, we had not known about women's desire to constitute a network among themselves, we had not gotten to each other personally and had missed the opportunity to learn from our community partners that were art attuned. While we had never worked with visual methods prior to the icebreaker, we took this as a learning opportunity and facilitated the financial aspects of this gathering.

Third, as academics with access to small pockets of funding, it was crucial for us to leverage these to facilitate this academic-community partnership through a weekend of networking worth 6000 USD from a university community engagement grant, and to disseminate women's care work through the art exhibit worth 3000 USD from NSF CUASHI. While we were able to accomplish a lot with this small pool of money and to alleviate some of the financial burden of bringing women together from all across WV, and to fund the art exhibit opening, we still relied on unpaid labor and time on our part and on the community partners' part to accomplish the weekend and the art exhibit.

Finally, in this neoliberal academic era, where we are asked to work towards the "broader impacts" of our research projects (NSF 2022) and need to be able to prove "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia." (UK REF 2023), disseminating results becomes part of one of the boxes we must check as researchers. How can we turn this new requirement into an opportunity? As feminist geographers, disseminating results for us was never an option, but always an ethical obligation. As we did in our previous research projects (Caretta 2018), here too dissemination was designed based on the need and desire of research participants. What was however novel and enriching for us in this instance was the possibility to engage with art to disseminate research results to the wider public, not just to return them research participants themselves. That women water stewards were the initiators of the art exhibit, with us acting as financial facilitators, was a testimony to the participatory nature of the research project. Additionally, and not secondary for the requirements of the neoliberal academia, the art exhibit and its press coverage

made it very tangible that research findings were shared with the wider public in a way that was palatable and could start a conversation and potentially a change with regards to the need to financially reward women for their crucial care work in water stewardship.

All in all, as other geographers have shown, (Urbanik and DiCandeloro 2020; von Benzon et al. 2021; Kelly, Lally, and Nicholson 2023), using art allowed us as feminist geographers to work on overturning of researcher-researched power dynamics, giving us the opportunity to learn from participants in ways that were less hierarchical and more comfortable for them than a research interview.

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