

Spring 5-2019

# Ethical Art Waste: Examining Resource Management in the Art Studio

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## Recommended Citation

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Ethical Art Waste:  
Examining Resource Management in the Art Studio  
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Abstract

This paper highlights the lack of education about production and disposal of art materials within the field of art therapy. Failure to educate clinicians creates ethical problems when hazardous materials are used in sessions unknowingly. This paper is grounded in environmental studies and chemical management to supplement the art therapy field's lack of research and commentary. The literature is dedicated to educating the reader about the hazardous nature of materials, issues surrounding regulations of chemicals involved in production, and consumerism in relation to waste processing. The research data was collected from a community engagement project: an educational presentation was offered to the Expressive Arts programs' students and faculty at Lesley University about creating a healthy and safe studio space. The advertisement received positive replies, and several faculty members expressed interest using information in future classes, but only a few participants attended the presentation. The research implies a need for raising awareness within the art therapy field, an increase in educational opportunities, and exploring other options for information accessibility about art materials to inform clinical practice.

*Keywords:* art studio, art supplies, art therapy, environmentalism, health and safety, resource management

Art therapists must seek to provide a safe, private, and functional environment in which to offer art therapy services. This includes, but is not limited to: proper ventilation, adequate lighting, access to water supply, knowledge of hazards or toxicity of art materials and the effort needed to safeguard the health of clients, storage space for client artworks and secured areas for any hazardous materials, monitored use of sharps, allowance for privacy and confidentiality, and compliance with any other health and safety requirements according to state and federal agencies that regulate comparable businesses.

-Art Therapy Credentials Board, 2016

### **Introduction**

Have you ever experienced a tightening in your gut as you watch someone put a half-filled cup with paint under a spray of water? The paint resists for a second before bubbling up and flowing over, drying leftover chunks of plaster and clay scattered in the sink. Have you ever been mystified by the pigment stains that linger on your hands after a good scrubbing? Or did you question the amount of plastic needed to create all the containers you see when gazing upon stocked shelves of a supplies store? What makes up that fine pastel powder you're breathing in? Have you ever wondered about the trees that fell for your art? There is a recycling bin right down the hall, yet the trash is collecting crumpled papers.

The hope of this capstone thesis is to magnify issues regarding art material management. Art therapy practice overlooks or underestimates the potential consequences associated with art supplies, our essential tools of the trade. At the same, art therapy clinicians and their literature champion the concept of reconnecting with nature and using nature-based imagery. Personal experience in Lesley's art therapy graduate program has shown me a lack of examining the

practice of pro-environmental behavior in art therapy courses. It is ironic that the profession emphasizes the importance of nature without addressing or acknowledging sustainability in basic practice. Safe and ethical practice includes conceptualizing art materials as consumer products which may contain unsafe ingredients. To address these concerns, awareness is needed about the manufactured nature of our tools. A presentation on establishing a healthy and safe art studio was part of this paper's community engagement project to educate students and faculty in the expressive arts community at Lesley University.

As an artist and art therapist, I think it is important to educate artists about the impacts of art materials on the health of the user and the environment, both inside and outside the studio setting. Particularly for art therapists, ethical practice includes being aware of the hazards of art materials and providing a safe environment for clinical work (Art Therapy Credentials Board, Inc., 2016). Resource education and management may be easier to adopt when reframed as an ethical practice to create a healthy and safe environment; this includes the clients, the practitioner themselves, and the environment when supplies exit the studio and enter the waste stream. While it is an art therapist's priority to engage a client's self-expression through art, they must remember that the materials do not magically appear and disappear between each session. Pollution is created with the production of art supplies and when leftovers from art making are discarded.

Regulation of chemicals used in production varies by geography, and lack of management adds to the ever-growing issue of global pollution. That is not to say that people can live without producing waste, but an ethical diligence can be adapted towards examining the art studio for better waste management practices. Some examples include being aware of needless waste production, using alternate biodegradable materials, and being more cautious with

consumer practices. Financial benefits may be another incentive to increased consciousness of the issue. How is preventing a client from dumping unused paint into the sink any different from asking people to turn off lights when they are not in the room? Even without the argument that people should live more sustainably, both bills need to be paid—whether it's the electricity bill or restocking art supplies.

While absent in art therapy literature, sustainability and ecological art making is addressed in art education as an important practice. Along with education-based guidelines, literature also includes art movements and theoretical perspectives. For instance, Blandy, Congdon, & Krug's (1992) article examines the ecological art movement's history such as its creation in response to earth art and applications of ecofeminist perspective: "...an ecologically restorative orientation to their teaching will allow art educators to encourage their students to see themselves as connected to nature, a part of nature rather than apart from it. Attitudes toward materials become participatory rather than 'masterful.' ...cooperation rather than competitiveness contributes to ecological well being" (p. 241). Reviewing pollution regulations and policies is also a vital educational step within this project; waste is an unavoidable part in art making, but art-related practices can begin to recognize and appreciate efforts towards environmental awareness: using environmentally preferable products, efficient water use and water recycling, and understand globally standardized health and safety information that are important for knowledgeable management (D. Peavey, personal communication, December 10, 2018). For example, Babin & McCann (1992) address what types of art products would be considered hazardous waste and how to dispose of them based on US regulations at the time. Reviewing commercial regulations for byproducts such as paint waste water can also help put into perspective the dangers of hazardous waste production. It also may challenge artists to think

about expectations of using materials: at what point does usage require regulation, and what are the ethical implications behind neglecting or overlooking resource management.

The remainder of this paper is divided into five sections about a community engagement project focused on increasing education towards resource management in the art studio. The following literature review aims to inform readers about art materials' relation to health and safety, current regulations of toxic ingredients, and green consumerism. The methods and results sections describe the project that was conducted and what data was gathered. The discussion section addresses considerations for future research towards increasing education and an overview of the research's limitations. Lastly, the conclusion section highlights important findings of this paper.

### **Literature Review**

To begin, it is crucial to view the nature of art materials beyond the scope of creative means; we must examine supplies as manufactured materials and that usage creates waste. Energy and resources have been used to produce art supplies, creating a loss of "locked resources" when waste cannot be reused or reclaimed through recycling. Pollution is also part of the manufacturing and recycling processes that use chemicals. Ingredients in art supplies may be considered hazardous, resulting in environmental health hazards. Hazardous substances may affect users and can enter the outside environment: "...In recent decades, our ability to produce new chemicals has expanded, concentrations of chemical contaminants in the environment have increased, and public concern for health and the environment has grown..." (Withgott & Laposata, p. 215). Reduction and reusing materials are effective strategies for protecting the environment. Benefits include saving energy and money, reduction of waste that goes to landfills and incinerators, and a reduced need to harvest new raw materials. In the long term, greenhouse

gas emissions would be reduced, leading to a lessened increase of global climate change and allows for sustaining the environment.

### **Education on Health Hazards**

Prevention of acute damage is much more apparent in art-making education, such as the use of acids and ventilating noxious gases, etc. This aligns with art that requires special education about equipment, stricter use regulations, knowledge of chemical reactions for the art process, and immediate notable effects on the user (i.e. dizziness, chemical burns, etc.). By comparison, there is less education about what goes into the production of commonplace art materials, such as paints. The potential for art supplies' ingredients including heavy metals, toxic dyes, and biocides may be unaddressed in educational programs. Lack of studio regulations and inaccessibility to information can also hinder self-taught artists taking precautions: "Some artists are unaware that they are exposing themselves and, if working at home as many artists do, also exposing their spouses and children to these hazardous materials" (Gupta, McCann, & Harrison, 1991, p. 569).

Ignorance is bliss, which is especially true regarding artists' knowledge about effects of chronic exposure to hazardous art supplies. Chronic damage is tricky to comprehend because of its relationship with time: "...chronic exposure is more common—and more difficult to detect and diagnose...Because of the long time periods involved, relationships between cause and effect may not be readily apparent..." (Withgott & Laposata, 2019, p. 219). Confounding variables may include activities that increase risk of health problems, such as smoking, or an individual's inherent susceptibility to disease. Therefore, knowledge of hazardous materials is essential for artists, whose lives may be adversely affected by their craft. The U.S. Consumer Product Safety Commission (2007) advises caution and limited exposure to hazardous materials,



which "...will likely minimize, if not prevent, the possibility of developing adverse health effects in the long term" (p. 6).

There are studies to support chronic effects on people involved both directly and indirectly with hazardous art supplies. For instance, Guha, Merletti, Steenland, Altieri, Cogliano, & Straif (2010) ran a meta-analysis on studies linking paint and lung cancer. After adjusting for smoker status, they found a 35% increased risk of lung cancer in painters, "a statistically significant, positive duration-response relationship" (Guha et al., 2010, p. 308). The meta-analysis highlights a lack of variation across continents in relation to changes in paint composition and environment. Bauer & Buettner (2018) specifically examined acrylic paint for the connection between emitted odors and harmful ingredients. They backed the urgency for research on previous findings that correlated volatile organic compounds (VOCs) with occupational asthma along with reports of hepatic damage and neurotoxic effects related to VOCs contained in other water-based paints (Bauer & Buettner, 2018). Their research found that odors and likely health risks are decreased when paints contain purer thinners and lower content of paint additives such as benzene derivatives, acrylic monomers, and polycyclic aromatic hydrocarbons (PAHs); "...these substances are either known to cause hepatic or nervous damage or have been reported as potential carcinogens" (Bauer & Buettner, 2018, p. 10).

Lack of education on health hazards has been an issue since the mid 1980s. Hagaman (1986) argued that art classrooms are set up without health and safety awareness because "we tend to teach as we have been taught" (p.44). She also points out that ignorance of art-related dangers may be a legal pitfall for art teachers; any serious health impacts resulting from classroom experience puts art teachers at risk for not providing adequate health and safety measures (Hagaman, 1986). In the 1990s Fields (1997) pointed out the unchecked nature of

artists in relation to self-employment in unregulated environments and are financially unable to acquire safety equipment. He also highlights the shortage of “industrial hygienists” who understand health impacts associated with art studios or work space; the art community does not raise red flags among safety-related agencies because of its unsystematic disposition (Fields, 1997). It is assumed that artists are uninformed of risks associated with their materials because of the “...diversity of sources and materials-often unaccompanied by instructions or labels-can make predicting exposures difficult...they don't hold the same healthy respect for materials as other professionals” (Fields, 1997, p. 286). That same mentality still exists despite the passing of several decades. Workman (2011) provides a recent example of a cast sculpture workshop with limited attentiveness to health and sustainability practices. His commentary highlights issues including studio ventilation, air pollution affecting neighboring buildings, daily exposure to hazardous materials, and the large amounts of trash produced by the craft. The studio was swept weekly, yet dust residue could still be found on equipment afterwards. Ventilation would send the dust into the immediate neighborhood, and “noxious vapors” infiltrated the other sections of the building (Workman, 2011). Typically, indoor air has higher pollution concentrations than outdoors, and that pollution has a bigger impact in developing nations due to little or no ventilation (Withgott & Laposata, 2019). Workman (2011) uses his work experience as evidence to his commentary of artists’ scope of health and safety practice: “Art production is seemingly indemnified from even a cursory mention of the notion of ‘art as pollutant’ among the industry’s numerous public platforms for dialogue, and the best you are likely to hear from an artist is a mumbled apology as their work heads for the garbage at the conclusion of an installation” (p. 521). At the very least, current art practices should maintain minimum air pollution by

monitoring air quality, keeping rooms clean, maintaining adequate ventilation and using low-toxicity materials (Withgott & Laposata, 2019).

### **Regulations**

Artists traditionally do not have training regarding the chemical composition of art products and their associated hazards. Most professionals would assume products intended for use in the art studio or classroom to be regarded as safe and tested prior to commerce. The Labeling of Hazardous Art Materials Act (LHAMA), the Federal Hazardous Substances Act (FHSA), and the Consumer Product Safety Improvement Act (CPSIA) authorizes the United States' Consumer Protection Safety Commission (n.d.) to regulate art products; art materials must be evaluated by a toxicologist for potential health problems related to use before they can be sold. The manufacturer must place caution labels on products if they are considered hazardous. Children's art materials may be banned "if the hazardous substance is accessible by children and the child is not old enough to read and heed instructions" (US Consumer Protection Safety Commission, n.d.) Manufacturers and importers of children's art materials "must test and certify compliance of such products before importing the products or distributing them in commerce" (US Consumer Protection Safety Commission, n.d.). Such regulations protect consumers from unreasonable harm and injury. Unfortunately, federal and state regulations in the United States are dated compared to other countries. However, the US is more lenient as to what chemicals can be present in products compared to the European Union; many consumer products "...are made of synthetic materials, and novel synthetic substances are not comprehensively tested for health effects before being brought to market" (Withgott & Laposata, 2019, p. 306). Leniency includes following in compliance with Department of Labor's Occupational Safety and Health Administration OSHA). For example, a Massachusetts 2018 bill amended M.G.L. chapter

149 §6 ½ to “... clarify employee safety requirements in public sector workplaces...[and] contain the phrasing for OSHA compliance...” (Department of Labor Standards, 2018). This includes the requirement that all private and public employees to be protected under OSHA’s hazard communication law.

In the European Union (EU), all chemicals used in commerce, including products and imported materials, must be tested by the manufacture for its hazardous properties as part of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation. Data is collected on the toxicity and environmental fate which is submitted to European Chemical Agency’s (ECHA) online database which was established in 2007 (European Commission, 2016). ECHA is required to review and evaluate all chemicals and restrict or prohibit those that pose potential harm to public health or the environment (European Commission 2016). ECHA has collaborated with other nations involved in the Organisation for Economic Co-operation and Development (OECD, n.d.) to develop eChemPortal, a free-access database for information on “existing chemicals, new industrial chemicals, pesticides and biocides” using the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The EU has banned or restricted many chemicals for use in products compared to the United States. Looking to the cosmetics industry as an example, Narayan (2018) reported on the ineffectiveness of self-policing within US companies, whereas the EU “...has already banned 1,328 chemicals from cosmetics...which is used in a variety of hair products and lotions — and has required premarket safety assessments, mandatory registration and government authorization for the use of material”.

### **Consumerism**

Let us examine consumerism as an aspect of artists' trade. Nowadays, synthetic chemicals are everywhere and in everything produced as an essential part of modern life in developed countries. Withgott and Laposata (2019) examine the role chemicals play in maintaining a high standard of living along with weighing the benefits versus risks: "Plastic bottles, can liners, and wrappers serve a useful purpose in containing and preserving our food, and their usefulness means that despite their health risks, we may as a society choose to continue including them in products when we judge their benefits to outweigh their impacts on human health" (p. 216). Unfortunately, there is little to no understanding of the risks related to hazards associated with synthetic chemicals. The lifecycle of these synthetic chemicals often is not fully understood, especially their multiple impacts on the environment and potential adverse health effects such as endocrine disruptors, chemicals that mimic or inhibit natural hormones in living organisms (D. Peavey, personal communication, April 11, 2019) To make matters worse, there are many barriers towards the adoption of green consumerism by consumers and manufactures. Consumer barriers include the following: low willingness to pay, low perceived credibility of green advertisements (also known as greenwashing), poor environmental awareness, low literacy rate, lack of availability of safe and healthier products, low efficiency and unreliability of available products, lack of support services, and difficulty of integration (Nath, Kumar, Agrawal, Gautam, & Sharma, 2014).

Lack of environmental awareness and greed affects the manufacturer's incentive to develop and provide green products. Carrington, Neville, and Whitwell (2010) noted the impact of green consumerist behavior, such as ethical purchasing and boycotting, "by the 47% growth in global sales during 2007 of products endorsed by Fairtrade Labelling Organizations

International” (p. 140-141). However, it is it crucial to understand discrepancies between industrial and developing nations in terms of material production and waste management systems in place. Withgott and Laposata (2019) reflect on the cost and availability of products with synthetic chemicals in many developing countries with low daily incomes. People in developing countries consume fewer resources, resulting in less waste. On the other hand, consumption and waste production increase as countries become more affluent. The up-tick in waste production leads to increased littering and a need for better waste management systems. Withgott and Laposata (2019) point out the significance of financial disparities with regard to waste processing: “Wealthier nations also can afford to invest more in waste collection and disposal, so they are often better able to manage their waste and minimize impacts on health and the environment” (p. 402). Advantages of modern society often are negated with use of synthetic chemicals generating hazardous waste that affects the health of people and the environment.

Conceptualizing consumerism and its environmental consequences throughout the world may be overwhelming, but there are components that individuals can reflect upon in their actions and artistic identity. Individuals can only do so much for the world compared to large organizations such as big business and governments. However, individualism and societal consumerism are innately intermeshed; ignoring personal consumption disregards self-determination and industrial marketing’s aim to appeal to the individual. An individual can assess how they want to act within society while aiming for rational control and personal responsibility (Gibson, 2011). Another way to look at it is that one must evaluate their sense of values and willingness to committed action. Artists may be conflicted between balancing values of self-expression and environmental stewardship. Instead of viewing art-making as excessive consumption, artists can maintain expressive endeavors while being aware of how their work is

affected by commercialism. Gibson's (2011) criticizes industries for trapping consumers "in self-defeating patterns of social interaction and by distorting natural consumer preferences" such as excessive consumption. Taking a simpler perspective, Jeff Chester aptly states the following on the ethical consumerism of art materials:

It is impossible to live your life and not cause at least some death and destruction. This is true even if you are the most careful, loving environmentalist and animal rights champion on the planet... It's not right or wrong, it is just the way it is. Most of us care about these things on a sliding scale... There really is no way to participate in our modern society and not be complicit in at least some less-than-savoury business practices, but it is something you should think about. (2014, October 1)

### **Methods**

The purpose of this study was to educate individuals in Lesley's Expressive Arts programs about the importance of safe art material use and disposal. I determined a need for education in Lesley through personal experience attending the Art Therapy graduate program. A community engagement approach was taken by conducting a focus group that involved an educational presentation and time devoted afterwards to brainstorming ideas and methods to create a safe, eco-friendly art studio.

The group was advertised to Lesley's expressive therapies community. The 3-hour workshop was held in an art studio on the campus of Lesley University. Those who were interested were advised to RSVP ahead of time [See Advertisement, Appendix A]. In the presentation, I gave a brief overview of defining risk as by hazards and exposure factors, defining resource consumption, and identifying resources as renewable or nonrenewable. Other topics addressed were the following: waste management methods, health and safety labels and

how to access materials' safety data sheets, health effects from ingredients such as pigments and biocides, using paper and microplastics as examples for environmental effects from pre- and post- consumption of materials, sewer disposal regulations, methods for processing waste water, and examining the US' Consumer Product Safety Commission's Art and Safety Guide (n.d.) for accessible information on specific materials [See presentation, Appendix B].

After the presentation, the attendees and I brainstormed ideas about how to better reuse materials and reduce excess waste. The art supplies cabinet in the studio was opened as a reference for materials that could be addressed in the discussion. I took notes for each idea that was mentioned as part of the data collection process. Before the group ended, attendees were asked what they thought about the presentation and if they had any feedback that they would like to offer. I noted their comments. The data were analyzed through self-reflection via my own art making, and the list was examined and categorized based on the types of waste management methods explored in the brainstorming process. The PowerPoint developed for the presentation was emailed to those who initially RSVP'd, along with reference documents.

### **Results**

Three students and two Lesley faculty members RSVP'd, but only two students attended the presentation. Both students who attended were part of Lesley's Masters art therapy program and were interested in the environment. The third-year student was working on her capstone thesis with a focus on nature therapy, and the first-year student had artwork on display at the time as part of Lesley's effort to raise awareness about environmental issues. The Lesley professors who were interested requested the use of information for research purposes and slides from the PowerPoint to be used in their classes.



The session lasted for two hours instead of the scheduled three hours due to the attendees' schedules; time was split evenly between the presentation and discussion components. The attendees were able to ask questions throughout the presentation, which typically were asking for clarification about terminology or exploring different applications of art materials.

Comments about the information were generally positive. The two participants were grateful for the opportunity to learn more about materials, and they were able to identify with practice concerns, such as lack of education in college programs. The lack of recycling bins in the classrooms with art materials was a point we commiserated. The participants talked about how they might apply it to their personal work. For example, they showed interest in examining their art materials more closely. Participants also gave examples of how they use materials in eco-friendly ways and how they have participated in art exhibits related to environmental awareness. The attendees found that the information presented was clear and useable for outside application. They specifically noted that the implications for ethical practice, limitations, and alternate resource recommendations made the presentation more realistic and achievable. The emphasis on privilege, financial, and time considerations were received well.

The list created during the brainstorming process contained 20 items [See Appendix C]. The list was organized into categories based on waste management methods: 3 items for reduction at the source, 1 item for separating waste streams, 15 items for recycling or repurposing, and 1 item for material reclamation. While brainstorming, the attendees were asked to consider the materials or studio setups they encountered at previous internship sites. Ideas emerged from the group's past experiments with repurposing materials, influenced by the presentation content, and using the classroom's art supplies as references.

Using art as analysis after the workshop, I selected materials from the generated list. I

used scrap fabric to sew a heart by hand and stuffed it with plastic bags. Then, I attached a piece of ribbon to the heart with paper-beads strung along it. I also made plarn (yarn made from plastic bag strips) and laid it out around the sewn heart before taking a photo [See Appendix D]. I decided on a handsewn art project because I do not have experience sewing beyond using a sewing machine. I felt that this was an appropriate craft to reflect the patience and attention to detail that is similarly involved in learning and practicing resource management. It is fitting that my hand stitching became more rushed and messier over time, resulting in a slightly misshapen heart. It emulates how easy it is to overlook small details for immediate results. I thought of how leftover solids are poured down the drain with rinse water when cleaning up because it is faster than taking the time to separate them from the liquid. The heart shape was also important to me because it represents the courage it takes to become actively aware of the environment and facing the discrepancies in art therapy practice. Making paper beads and plarn were other methods I was unexperienced with, and the crafting process was mostly experimental and assessed for feasibility. The paper-beads were quick and easy to produce, kept my hands busy, and it was fun to see what different shapes could be made. The plarn was time-consuming to build up a suitable length, and it required more thought in measuring lengths and keeping the plarn organized. In the end, I choose not to dedicate time to knitting anything with the plarn. Between the two methods, I felt the paper-beads were more worthwhile to make in terms of time limitations and enjoyability.

### **Discussion**

The community engagement project was relatively successful with its goal: I was able to provide information about resource management and the participants were able to brainstorm practical ideas an art studio. It is unfortunate that only two out of five people were able to attend,

so the project was limited in its ability to educate a large population. Nonetheless, the advertisement had attracted interest among faculty involved in Lesley's Expressive Arts Therapies programming. Further correspondence with the professors may lead to educational opportunities to increase awareness of resource management. Two themes arose from the data: idea generation is limited by knowledge, and there is need for increased educational opportunities.

Going through with the presentation was nerve-racking; for one, I am generally nervous with public speaking, and my nerves were compacted by the fact that my personal background knowledge related to environmental science was self-taught or learned through my parents. I was coming at this research as an art therapist trying to wrangle all the new information from a field outside my academic scope. As an upside, it helped acknowledging that so too would be my likely audience. As went through the presentation slides, I found myself growing more confident in answering questions and giving real-world examples that may be encountered in the art studio. I was able to recognize that my understanding of the topic at the time of the presentation was more extensive compared to the audience. The comparison supports a lacking presence of health and safety education regarding art supplies within Lesley's programming.

Some of the generated may require further steps in learning about health risks associated with the repurposing process. For instance, several items require a material to be heated for use. Rule of thumb for safe practice is to ventilate whenever a solid material is melted. Plastic bags can be layered and fused to make fabrics for art, but the type of plastic may create toxic fumes. For melting down crayons and oil pastels, I would advise checking the company's safety data sheet in case the process may produce toxic fumes as well. Feasibility is also an issue to consider. China has stopped accepting recyclables from US since 2018, which has led to cities

suspending recycling programs due to rising costs (Corkery, 2019). The separation method of increasing recycle bins may not be possible in some cities depending on their program status. Reusing or repurposing materials are still key steps in waste management; for example, buying empty bottles for spraying paint defeats the purpose of limiting the consumption of extra resources. For those who choose to create pattern rollers on the list, contamination of the tube via paint may keep it out of the recycle stream and packing bubbles can always be reused in future packaging. Other miscellaneous considerations include the use of burlap and making homemade spice paints. Burlap is typically not treated with chemicals and is made from organic fibers; it is possible to compost burlap after shredding it. As for homemade paints, artists should know that color variations and degradation over time depend on the organic materials used.

If I were to hold the presentation again, there are a few aspects I would change. A large amount of information about waste management was presented, and future opportunities should be longer in duration for the participants to conceptualize what they have learned. If I were to hold another session, it would be more appropriate to have a three-day workshop. This will give attendees time to receive and process the information at length. The first day would cover information regarding health concerns related to ingredients used in art materials as well as practical knowledge such as learning how to read health and safety labels and accessing products' safety data sheets. Health and safety are immediate concerns to individuals, so it would make sense to start with a relational approach rather than macroscale issues like pollution effects on the environment. The second day would then address large-scale issues regarding waste management, both inside the studio and outside; this includes standards for sewer disposal, the handling of waste streams, global pollution created from producing and recycling materials, and organized repurposing programs. Attendees would be given time to process the information by

creating an art response and holding a group discussion on thoughts and opinions regarding ethical responsibility of sustainable art practice. The third day would contain a quick recap of the previous days' information along with presenting alternative, eco-friendly resources and methods related to art supplies, followed by time for art-making and group discussions.

Future research may focus on ways to fill in the educational gap on hazardous materials in art-related programming. Particularly for expressive arts therapies, a potential method could focus on distributing the Consumer Product Safety Commission's Art and Craft Safety Guide (n.d.) to classes dedicated to standards and ethics; the students could review the guide with their professor and debate ethical practice indications. Attitudes towards regulations and feasibility issues could be more freely conveyed in a setting dedicated to the discussion of ethics. The guide could also be distributed to community studio spaces at different sites, like K-12 art classrooms and studios for art education or expressive therapies. Possible data to collect would include frequency of use, helpfulness, and opinions on mass distribution. Other considerations for education include art-related departments offering safety classes for credit. Another option would be to bring in experts as guest speakers to give a lecture about hazardous materials in art supplies (Fields, 1997). Fields (1997) also recommends more extensive tests and accurate labelling by manufacturers, and "artists could switch to safer, if more time-consuming, materials and techniques" (p. 289).

As for the literature, it is important to note that most of the references used in this paper come from various sources. The lack of awareness in the art therapy field is apparent when most of the research comes from outside of the field, such as marketing and environmental science. Art education touches upon health and safety issues, but the literature arises from individuals similarly trying to raise awareness out of need observed from personal experiences. The art

therapy field should incorporate related information from outside specialties to advise work and research so that the field can maintain a well-rounded practice.

### **Limitations**

As the author, I do not have an educational background in environmental sciences. I received advice on the slideshow's layout and how to explain aspects related to sustainability by my father, Dr. Dwight Peavey, a Scholar-in-Residence in Chemistry and in Environmental Studies at Brandeis University. The presentation was also limited to North American data, particularly the United States and Canada.

Both attendees were engaged in environmental activism and other eco-friendly activities. The results reflect the participant bias involved in prior knowledge and opinions about environmentalism increasing positive reception of the presentation. Bias may have also been induced via the advertisement description of the presentation; it is worded so that it may appeal more to those interested in the topic. The description may have deterred other people with little background knowledge or controversial opinions of the topic. The time between the advertisement email and the presentation was limited to four days; this may be a likely cause for low attendance.

The presentation was also limited by a language barrier. In the second hour of the meeting, an attendee noted that they are trilingual and had difficulty with understanding some of the slides due to issues with translations. This highlights that translation of technical terminology, associated with health and safety procedures or chemical lists, may act as an obstacle for providing standardized information in an educational format.

The data collected was skewed because I provide questions to guide the group discussion after the presentation. I thought that generating ideas would come organically from opening the

art supplies closet as reference. Most ideas generated pertained to reusing or repurposing efforts. With the limited number of participants, I also threw in ideas along the same line, thus perpetuating the focus on repurposing materials. Only a few ideas involved reduction at the source, separating waste streams and material reclamation; examples such as making spice paints rather than buying manufactured paints, increasing the presence of recycle bins, and identifying Crayola's ColorCycle program. I was disappointed by the lack of method variation, and upon categorizing the items, I realized that I had hoped to hear more about alterations in disposal practices and limiting excessive material use. Ultimately, I held expectations too high about what ideas would be generated, and I did not predict barriers in the brainstorming process. Limited attendance, the participants' background knowledge and experience with the topic, and my facilitation and participation in the discussion affected the data collection. I recognize now that it is hard to think of new, innovative methods when working with limited knowledge, a small timeframe, and only a few people for brainstorming.

### **Conclusion**

Ultimately, there is a need for more safety education about the usage of art materials. Artists and art-related professions should be aware of health and environmental impacts that come with usage. Particularly for art therapists, the ingredients found in art supplies may be detrimental to their clients' health. Part of the education includes consumer awareness; for instance, regulations of hazardous chemical ingredients are not equally implemented across all countries. The community engagement project acted as an educational opportunity at Lesley University to educate students and faculty about how to establish a healthy and safe art studio. Attendees learned about waste management methods and risks associated with hazardous art materials. They were able to develop practical ideas that covered methods such as reduction at

the source, separating waste streams, reusing materials, and material recovering. The data from the presentation brought forth considerations for continued education via future workshops and increased availability of safety information.

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### **Appendix A**

Environmentally conscious? Want an eco-friendly studio? Artists go GREEN; be part of the solution. Come and learn about art and sustainability.

Looking for artists and art therapists (students and clinicians alike) interested in joining a focus group about exploring green art studio practice. The gathering will include a presentation on the importance of resource management in the art studio. The rest of the time will be devoted to brainstorming different ways to reuse materials and reduce excess waste. Important references for resource management and a compilation of ideas produced during the group will be emailed to participants after the meeting. The facilitator will experiment with creating several of the group's ideas/methods and collect data on feasibility and effectiveness.

**Appendix B**

The original version of the February presentation is hosted online through Google Drive:  
[https://drive.google.com/file/d/1ZbQx2vPkAazo3psHhage0\\_5iplMsKULL/view](https://drive.google.com/file/d/1ZbQx2vPkAazo3psHhage0_5iplMsKULL/view)

**Appendix C**

Reduction at the Source	Separate Waste Streams
<ul style="list-style-type: none"> <li>• Making spice paints for biodegradability</li> <li>• Small figures and childhood toys can be used for sand trays</li> <li>• Empty condiment bottles can be used for consolidating paints and make it easier to control pouring</li> </ul>	<ul style="list-style-type: none"> <li>• Increase availability of recycle bins</li> </ul>
Reuse	Material Recovery
<ul style="list-style-type: none"> <li>• Pattern rollers made from packing bubbles and toilet paper tubes</li> <li>• Leftover wire can be used as twist ties</li> <li>• Leftover foil and burlap for sculpture base &amp; plaster gauze</li> <li>• Leftover paper, fabric scraps plastic wrappers, and plastic bags can be used for stuffing</li> <li>• Refilling used watercolor containers with homemade watercolor paint</li> <li>• Use cardboard for printmaking, stencils, or cardboard furniture</li> <li>• Plastic bags and containers for supply storage or incorporated into art, such as making plastic yarn</li> <li>• Fabric taken from old clothes for art or rags, such as using leftover silk scraps for egg coloring</li> <li>• Reuse empty spray bottles for spraying paint</li> <li>• Rehydrating dry clay for slip</li> <li>• Melting crayons for candle making</li> <li>• Remaking whole crayons or oil pastels out of melted stubs</li> <li>• Paper making from waste paper scraps</li> <li>• Recycled paper and magazines can be used for paper beads</li> <li>• Coffee filters can be used as paper</li> </ul>	<ul style="list-style-type: none"> <li>• Company repurposing opportunities, such as Crayola's ColorCycle</li> </ul>

**Appendix D**

Art as Reflection:



***THESIS APPROVAL FORM***

**Lesley University  
Graduate School of Arts & Social Sciences  
Expressive Therapies Division  
Master of Arts in Clinical Mental Health Counseling: Art Therapy, MA**

**Student's Name:** \_\_\_\_\_Amanda Peavy\_\_\_\_\_

**Type of Project:** Thesis

**Title:** \_\_\_\_\_ Ethical Art Waste: Examining Resource Management in the Art Studio

**Date of Graduation:** \_\_\_\_\_May, 2019\_\_\_\_\_

In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

**Thesis Advisor:** \_\_\_\_\_Raquel Stephenson\_\_\_\_\_