Waste Materials as a Sustainable Medium in Contemporary Art: An analysis of Malaysian artists' creative practices

Mursyidah Zainal Abidin¹, Nik Syahida Sabri ¹,
Wan Samiati Andriana WMD¹, Wiwik Sri Wulandari²
¹ College of Creative Art, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia
² Institut Seni Indonesia, Yogyakarta, Indonesia

Abstract
This study analyses the integration of environmental factors into creative representation, focusing on Malaysian artists proficient in 2D and 3D artworks that utilize waste and recyclables. It emphasizes the value of waste-derived materials in artistic expression, highlighting artists competent at converting varied waste forms into fascinating artworks. Using Feldman's theory, the researchers selected artworks to understand their content and context. Acknowledging the potential for art to contribute to change, the research advises employing waste as a creative, sustainable strategy to address environmental challenges and increase awareness. It promotes waste as a significant artistic medium for encouraging sustainability consciousness in Malaysia.

Keywords: waste pollution; waste art; Malaysian artists; creative artwork

1.0 Introduction
When pollution was first discussed, it was seen as a significant threat to human well-being and the earth's natural resources. The term "environment" refers to everything around us. It could indicate living or non-living. Living things exist in their surroundings, continuously interacting with and adapting to them. The environment includes interactions between animals, plants, soil, water, and other living and non-living organisms. However, pollution's impact over time is modest and pervasive. Although there is awareness about pollution, the behavior and efforts made have a limited effect. Malaysia urgently needs to reduce its dependency on landfills due to its high population density, but an alternate solution, such as a combustion zone, is challenging to implement. As a result, controlling solid waste in Malaysia remains a significant concern. Office, municipal, commercial, industrial, and construction waste are increasing in amount and type daily. This paper focused on municipal waste, which consists of typical everyday items thrown away daily by the public. To reflect on the environmental issue, identify the Artist who manipulates the waste material as media in creating creative artwork.
According to the Compendium of Environment Statistics published by the Department of Statistics Malaysia (DoSM), Malaysia had a 4.5% increase in the amount of scheduled waste, reaching 7,505.2 metric tons in 2021, compared to 7,185.2 MT in 2020. Selangor, Perak, and Johor accounted for the highest proportions of the total, with contributions of 27.8%, 26.1%, and 13.7%, respectively. The article emphasized the influence of the Movement Control Order (MCO) on the river water quality in Malaysia during 2021. Following research conducted by the Department of Environment, out of the 144 river basins analyzed, 75% were classified as "clean," 20.1% as "somewhat contaminated," and 4.9% as "polluted" in comparison to the data from 2020. Despite the public's disapproval in the face of floods, it is imperative to acknowledge that insufficient waste management practices indirectly contribute to the repetitive occurrence of disasters.

1.1 Waste Pollution
Waste pollution is a major problem that people face every day. Pollution is defined as anything that makes our environment harmful or unpleasant for living organisms. Each household now produces more waste every day because of the rising global population and the demand for food and other necessities. Because of mismanaged waste, it is causing hundreds of thousands of people to die each year in the developing world from easily preventable causes, and plastic waste is adding a new and dangerous dimension to the problem. A report has found that "municipal waste frequently goes uncollected in poorer countries, and its buildup fuels the spread of disease.

Waste such as air pollution, land pollution, garbage pollution, beach pollution, and plastic pollution is the main cause of environmental pollution, which is a major threat to people, animals, plants, and ecosystems. Pollution devastates animal habitats, especially those of orangutans and tigers. Local authorities are not entirely responsible for waste management and waste minimization in Malaysia. Instead, most government agencies, such as the Ministry of Housing and Local Government, the Ministry of Environment, the Ministry of Health, and the various academic institutions and NGOs, should work collaboratively to achieve these goals.

1.2 Waste Material
The improper disposal of waste in landfills and the ineffective management of plastic waste in Malaysia have led to numerous environmental and public health issues. Consequently, the country has gained an unfavorable reputation as a significant contributor to the marine plastics crisis. Malaysia should strive to establish a closed-loop plastic waste recycling system that operates on the principles of a circular economy, ensuring that plastics are never disposed of as waste (Chen,2021). The most common types of waste were garbage, plastic, bottles or glass, paper, metal, and fabrics. Discarded plastic bags, fishing nets, and cigarette filters are on beaches, endangering marine life and the marine environment. Pollution caused by hard and soft non-biodegradable plastic that remains on the land for thousands of years or forever creates environmental health and composition issues. Plastic bags and food packaging are among the most prominent forms of plastic waste that come from a variety of human activities. Environmental crises have been brought on by the global predominance of plastic waste. Items made of discarded plastic present serious difficulties even if they are a substitute material for many human needs. Because plastic waste contains synthetic polymer components that prevent it from decomposing biologically, ecological calamities are a result of the waste’s crucial nature. This emphasizes how urgent it is to address how plastic waste affects the environment and investigate sustainable alternatives to lessen its negative effects on the environment (Hidayatullah,2018).

To improve solid waste management, Malaysia has chosen a step-by-step strategy for restructuring and organizing it. The standard waste management hierarchy consists of five critical steps: reuse, reduce, recycle, treat, and dispose. Currently, the most used phase in Malaysia is disposal. The Malaysian government continues to develop a more effective system for handling waste by encouraging reuse and reduction, thereby reducing landfill waste. A sustainable solid waste management system requires careful planning as well as effective resource allocation and management.

2.0 Literature Review

2.1 Waste Art
Numerous art projects have been conducted to promote awareness about recycling. The Solid Waste Management and Public Cleaning Corporation (SWCorp) has established a platform for its special art activists and the public to create work based on discarded and used goods that have commercial and aesthetic value and have the potential to evolve the community’s mind into a world-class mind community. The Waste to Art Competition was initiated in 2016 to raise the community's awareness and understanding of the value of repurposed and recycled items as a valuable resource, mainly when utilized creatively. This competition aligns with the goal of the National Cleanliness Policy, which aims to transition from an economy of linearity to a circular economy with the collaboration of all stakeholders. Furthermore, it also aligns with the 12th Sustainable Development Goals (SDGs), which aim to reduce the production of recyclables by 2030 through recycling initiatives, zero waste practices, and efficient waste management to promote sustainable development and environmental well-being.

The responsibility to preserve the planet transcends the realm of heated political discourse. Throughout the year, an increasing number of exhibitions are centered around it, featuring both technologically advanced exhibits and the works of great masters. They aim to create artistic respect and encourage individuals to address environmental issues. As numerous tiers of the art world come to terms with their responsibility for the climate crisis, the notion of upcycling, which entails repurposing materials that would otherwise be disposed of in landfills, has begun to gain popularity.
Innovation and creativity are critical aspects of waste management. Growing awareness among individuals, with a particular emphasis on children, surrounding the value of appropriate waste management practices can significantly alter their perspectives on refuse disposal. The transformation of refuse materials into artistic forms can substantially impact this context. Integrating aesthetic appeal and functionality makes it possible to transform refuse materials into novel art forms, thereby encouraging the pursuit of creativity. Innovative concepts artists and designers contribute are crucial in reshaping conventional art forms. Therefore, it is essential to incorporate waste management strategies into the academic curriculum as an innovative learning method to foster the development of fresh artistic expressions.

2.2 Malaysian Artist

Every Artist's works vary significantly in terms of concepts, techniques, style, and technical expertise. Despite the apparent disparities between their works, they all advocate for environmental protection. The artwork aims to let viewers see art through an ecological lens, emphasizing how installations display the environment and our place in society. These artists are reimagining waste as a plentiful and principally neglected resource that can be changed into beautiful objects through technology, creativity, and creativity. This differs from simply recycling, or "upcycling," as the contemporary design language puts it.

Gallery Prima’s Ameliorate exhibition (2021) is also an excellent beginning. Its purpose is to showcase artists from all areas of life, which is especially significant given the country's isolation. The exhibition's theme, "Returning the Past, Restoring the Present, Reinventing the Future," about discarded materials, deterioration, and rejuvenation, feels appropriate. The materials used have significantly impacted human history, from the Stone Age to the Bronze and Iron Ages. Vast-scale technological developments throughout the late 18th century celebrated the start of the Industrial Revolution, which allowed humans to create vast quantities of steel, plastic, and wood—albeit at a tremendous environmental cost. Among the artists exhibiting works from trash to art are Ramlan Abdullah, Rosli Zakaria, Sharmiza Abu Hassan, Fauzin Mustafa, Zakaria Sharif, Liu Cheng Hua, Idrus Rani, Faiz Yunus, Nor Tijan Firdaus, Nicholas Choong, Aimman Hafizal and many more. The artwork by Nor Tijan Firdaus titled Waste to Art uses e-waste on a wood panel coated with resin as the primary material; 'Unbreakable' by Liu Cheng Hua uses a welded metal fork; and 'The Red' by Syed Zamzur Akasah uses paper, recycled paper, clay, plastic, and acrylic on canvas.

3.0 Methodology

This study aims to analyze a phenomenon in social science and employs a qualitative methodology. The study involves acts of observation and the compilation of appropriate documentation. This approach systematically evaluates events, behaviors, objects, artworks, and the language employed within the paintings. Statement involves directly assessing present behaviors or problems, utilizing knowledge, experience, and competence to evaluate the observed information (Tjetjep Rohendi Rosidi, 2015).

3.1 Grounded Theory

The study started with identifying the artist who works with waste material as media and using grounded theory by Edmund Burke Feldman (1970) to analyze the artwork. This theory was selected since it is the most effective form of art criticism for comprehending visual artwork. The figure shows steps on how the analyzing process has been done.

Edmund Burke Feldman established a framework for art criticism to comprehend specific art pieces. Feldman's criticism consists of four basic stages: description, analysis, interpretation, and judgment. To describe the work, first identify visually apparent characteristics of the artwork, like artists name, media and technique, size, year, and type of artwork. The next step is to analyse the artwork, emphasizing its formalistic elements, including composition, shape, form, colour, and texture. To interpret the ideas behind the artwork, we can propose possible meanings based on the visual evidence of what the artist is trying to communicate. Finally, to judge the overall strengths or success of the artwork, we can observe its significant effect on feelings and understanding of the underlying message. This research aims to enhance the expertise of the chosen artwork by offering a more comprehensive analysis of the process involving waste material.
### 4.0 Findings
Each of these works of art represents the artists’ thoughts or ideas about the significance of producing art from waste materials. Along with building values, these artworks promote awareness, responsibility, health, cleanliness, and creativity. The following is an analysis of artists and their works that consistently utilize waste items as a leading source of creativity.

<table>
<thead>
<tr>
<th>The Artwork</th>
<th>The Analysis</th>
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<tr>
<td><img src="image" alt="Electronic waste" /></td>
<td>The artwork by Nor Tijan Firdaus, titled <em>Climate Change is Real</em>, was exhibited in 2020. This piece of art simultaneously refers to our society's heavy reliance on technological devices and ignorance of the enormous waste they generate. Nor Tijan Firdaus uses electronic waste as her primary medium of expression to create a portrait of an innocent and naive youngster. She collects these items from the very foods that the contemporary world eats. The dramatic composition makes the audience aware of humans' more significant role in destroying the environment, giving them a strong sense of reality.</td>
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<td><img src="image" alt="Compressed HDPE plastic waste" /></td>
<td><em>The Last Hope</em> is a large-scale work size 8 x 10 x 10 feet produced by Mohd Razif Rathi and his group. This work was created in 2019 and exhibited in conjunction with the Ipoh International Art Festival and Climate Exhibition, organized by PORT in Ipoh, Perak. Discard multi-layered high-density polyethylene (HDPE) from a detergent container, which is then melted and reformed into a solid three-dimensional form. The sculpture is attractive since its colors originate from numerous discarded bottles. The sculpture embodies the harmful effects of pollution, especially waste from consumers. The figure standing upright from the pile of plastic debris and facing the sky represents our attempt to restore Mother Nature's balance through recycling and reducing consumer waste. Also, it acts as an open invitation for the audience to think about the issue around consumer waste, how they can minimize it, and—above all—how to bring about <em>hope.</em></td>
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<tr>
<td><img src="image" alt="Discarded fabric" /></td>
<td>Noorhidawati Mohamed Amin is an artist who works with discarded fabric as her medium. The artwork was created in 2022 and was titled <em>Pink Dotted Garden</em> 135cm x 94cm. In 2023, Hidawati exhibited at Prima Gallery, Bangsar. She utilizes needles and thread to paint, and she emphasizes her artistic approach to stitching and embroidery since she enjoys these pursuits and believes that they give her a unique edge over her fellow artists. This talented Artist has produced numerous painting series embracing different subjects. She enjoys working with thread, textile collage, and acrylic in her series Landscape. Hidawati displays an impressive range of fabrics that incorporate most of the colors. Her artwork is remarkable because of how the subject matter is arranged and how the cloth is stitched.</td>
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Anisa Abdullah's work, incorporating collages from magazine paper, has become an unforgettable signature. Considering his academic years, she has incorporated magazine waste into his work. Renjis-Renjis was produced in 2023 using the paper collage technique. The result is 122 x 91.5cm in size using the paper collage technique on canvas, exhibited at G13 Gallery. The artwork portrays several women attired in Kebaya, like a Malay woman in the 80s. She assembled paper cuttings of various colors to form a landscape of decaying buildings. The aesthetic appeal of the composition exists in the harmonious arrangement of the papercuts and the subject matter.

William Koong, in collaboration with UEM Sunrise, constructed the sculpture of the oriental pied hornbill from car parts and scrap metal to raise awareness of this endangered species that is native to the Iskandar Puteri ecosystem. A scrap metal artist making waves in Ecological Art or 'Eco-Art' is a contemporary form of environmental art created by artists concerned about local and global ecological situations. In conjunction with Earth Day 2022, the Artist turns scrap metal into sculptures. His father could not afford toys because of his family's economic situation. Alternatively, he discovered innovative methods to support himself by gathering discarded goods such as miniature components and hi-fis to explore. This event marked the Artist's first encounter with recycling discarded materials. The Artist's exploration of metal gained prominence when his brother-in-law founded a workshop in Klang. At twelve years old, he had an opportunity to engage in a workshop where, during school breaks, he learned skills like welding and molding different metals to match his artistic interests.

Her first work showcases a printmaking artwork using discarded drink box materials. Mursyidah Zainal Abidin, with her artwork titled Sepasang, uses the dry point technique on paper. The artwork size is 35 x 23 cm with a frame. This work was exhibited with Printmaking Open at HOM Art Trans in 2022. The Artist used an alternative matrix using tetrapak waste to create her prints. The subject matter used is a pair of chickens, symbolizing two human beings in love. Most printmaking was produced using conventional matrices, such as woodblock, linoleum, metal plate, and silkscreen. Printmaking can be created even without using an actual matrix by employing waste materials like Tetra Pak. The print work was remarkable because of the surface of the discarded matrix.

5.0 Discussion
A study of previous works reveals that many Malaysian artists use waste and recycled materials to inspire their creations. The forms, styles, methods, and approaches utilized to produce two- or three-dimensional artworks are diverse. Using waste materials enhances the work's interest and uniqueness, even though its message has nothing to do with pollution. The chosen lineup of artists is renowned for their distinctive and innovative approaches. The wide range of recycled materials they use in their works—including foil layers on tetrapak, paper, plastic, metal, fabric, and electronics—showcases their creative thinking. The unique qualities that every material contributes to the depth and complexity of their artistic expressions in two- and three-dimensional formats are combined to create something truly extraordinary. The diversity demonstrates the artists' ability and the potential for these frequently disregarded materials to be turned into visually appealing and provocative works of art. By utilizing the unique characteristics of each medium, the artists expertly extend the boundaries of traditional artistic forms and, through their careers, add to the larger discourse on environmental consciousness and sustainability.

Recycling art enthusiasts are driven by their desire to contribute to the environment and their excitement about this artwork. This approach is also an exciting teaching tool to increase recycling awareness in the neighborhood, especially for educating youngsters about the effects of human behavior on the environment and the importance of recycling for improved quality of life. Recycling is now a requirement for every community, rather than a choice, to preserve the environment for future generations (Merman, 2021).

Swati Sharma (2022) notes that engaging with artists has enlightened the researcher about the transformative potential of discarded waste in artistic endeavors, serving as both a medium of creation and a cautionary message on recycling and environmental conservation. Artists' small initiatives can foster global awareness of the raw waste issue, gradually shaping a more environmentally responsible society. Even though few artists globally are using discarded materials, they create impactful artwork, influencing audiences to use waste materials wisely. This underscores art's power as a meaningful and creative tool to reshape public awareness regarding the state of the planet.

Innovation and creativity are critical aspects of waste management. Growing awareness among individuals, with a particular emphasis on children, surrounding the value of appropriate waste management practices can significantly alter their perspectives on refuse disposal. The transformation of refuse materials into artistic forms can substantially impact this context. Integrating aesthetic appeal and functionality makes it possible to transform refuse materials into novel art forms, thereby encouraging the pursuit of creativity. Innovative concepts artists and designers contribute are crucial in reshaping conventional art forms. Therefore, it is essential to incorporate waste management strategies into the academic curriculum as an innovative learning method to foster the development of fresh artistic expressions. (Abd Shukor, 2023)

6.0 Conclusion & Recommendations

Although each Artist's canvas is different, the artwork has one thing in common: the use of a variety of waste and recycled materials, ideas, and presentations to express something that can appear indescribable at times. Save the environment, protect nature. Recycle. Reduce the amount of waste that we produce. Those messages reverberate through the artwork. This effort could be a stepping stone for the public to see destruction from a better perspective, through the lens of creative expression, and it is an artist's effort to save the earth.

Artists, activists, and curators are collaborating today to create objects and images that inspire and empower people to be critical thinkers and participate in making the world a better place to live. More competitions should be organized in which waste material from developing works is the primary material. For its sustainability, the community can also participate by gathering waste material in conjunction with certain government agencies. As a cost-effective alternative to expensive art materials, waste, and recycled materials are the best media for young artists to create art. In addition to protecting the natural environment and humankind, it can also strengthen the aesthetic value of materials and give a message against pollution.

In the future, people will comprehend recycling concepts more effectively and practice them more consistently. Growing engagement from the government, the creative industries, higher learning institutions, and schools will boost public awareness of waste. A yearly art competition focused on recycling materials could be an essential component of raising public awareness of environmental challenges. By providing financial incentives, one motivates artists and raises awareness of the value of recycling. Funds from corporate sustainability-related businesses may be used to assist artists in constructing large-scale sculptures from scrap metal, which would promote creativity and solve the issue of waste.

Apart from competitions, art galleries play a role as they allow artists to specialize in using discarded materials as their medium and platform. This benefits the artists by giving them more exposure and has an enormous impact on Malaysia's art scene. Through the exhibition and support of art made from waste, galleries play a proactive role in establishing a more ecologically conscious and sustainable art scene. This two-pronged strategy of gallery assistance and contests has the potential to spur broad change and a heightened appreciation for environmentally conscious art among Malaysian artists. Art encompasses the power to encourage us to enhance our world; thus, we must utilize its impact.

Acknowledgment

Highest gratitude towards Allah the almighty for the blessing and guidance so this study can be successfully conducted and produced within the time constraints and shortcomings. Alhamdullilah. Besides, gratitude is expressed towards all directly and indirectly involved in this research. It is hoped that this research will give benefits as well as be blessed by the almighty. Insha'Allah.
Paper Contribution to Related Field of Study
The study would add to the discourse on contemporary art by examining the use of waste materials as a medium. It could contribute to understanding how artists in Malaysia contribute to the evolution of artistic practices, challenging traditional norms, and responding to global environmental concerns. Analyzing the cultural context in which Malaysian artists work with waste materials can provide insights into the societal values, traditions, and problems that influence their artistic choices.

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