

## Artistic Practice: The Potential of Natural Local Fiber Waste Composite for Printmaking Matrix

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### Abstract

Natural fiber composites have great potential in developing printmaking matrix due to their unique properties and benefits. These composites are made by combining natural fibers such as wood dust, bagasse, rice straw or any wood waste, which results in some significant artistic practice for printmaking. Printmaking is a form of fine art in which the work involves the transfer of images from the surface of one matrix to the surface of another matrix. This printmaking work was produced using various techniques and approaches, and artists always conducted a wide range of trials and investigations, all directed towards producing important output printmaking itself. Thus, this study considers some possibilities of their aesthetic qualities, natural fiber composites offer a unique texture and visual interest that can enhance the final print. The fibers in the composite can create a natural grain pattern that adds depth and richness to the image, and the subtle variations in color and texture can create a sense of organic warmth and authenticity. The experimentations will be conducted in a lab polymer with a semi-scientific approach that looks at any subsequent result for each outcome to explore new forms of artistic expression. Another benefit of natural fiber composites is their versatility. They can be easily shaped and moulded into various forms, making them suitable for various printmaking techniques, including relief, intaglio, and planographic printing. Natural fiber composites can also be combined with other materials, such as rubber and LDPE (Low-Density Polyethylene), to create a hybrid printmaking matrix that offers even greater possibilities for artistic expression.

**Keywords:** Artistic Practice, Natural Fiber, Composite, Printmaking

### Introduction

In artistic practice, exploration and innovation are the lifeblood of creative expression. Artists perpetually seek new materials and techniques to push the boundaries of their creative art, forging unique and thought-provoking works of art. In recent years, one area has captivated

the imagination of artists and environmental advocates alike: the transformative potential of natural local fiber waste composite as a printmaking matrix. This emerging approach to printmaking ignites artistic inspiration and responds to the urgent call for sustainable and eco-friendly practices within the art world.

Traditionally, printmaking matrix have found their genesis in materials like wood, metal, or synthetic linoleum, each with well-established merits. However, in this study, we venture beyond convention, exploring alternative matrix to amplify the possibilities of printmaking artworks and redefine the very essence of the matrix.

Natural local fiber waste composite emerges as a beacon of promise in this creative quest. This composite material derives from locally available, often overlooked, and underutilized natural fibers, such as plant stalks, leaves, or agricultural by products. Artists can reduce the strain on virgin resources by repurposing these abundant but discarded materials and curtailing waste accumulation within their communities.

Applying natural local fiber waste composite as a printmaking matrix unlocks artistic opportunities. With its inherent textures and patterns, this material imbues printed artworks with depth and visual intrigue that transcend the capabilities of conventional matrices. The intricate interplay of color, thickness, and fiber composition begets a distinctive aesthetic that captivates the eye and invites contemplation.

Beyond aesthetics, the versatility of natural local fiber waste composite stands as a testament to its potential. It readily moulds, carves, and shapes, accommodating diverse artistic visions and encouraging experimentation with various printing techniques and processes. Artists are presented with an expansive canvas to render intricate and detailed prints, each a testament to the boundless creative possibilities.

However, adopting this sustainable practice extends beyond the studio; it aligns with the broader movement towards eco-conscious art-making. In a world awakening to the imperative of environmental stewardship, artists are uniquely positioned to lead by example, weaving sustainability into the fabric of creative processes. By employing natural local fiber waste composite as a printmaking matrix, artists contribute to a more sustainable art ecosystem and inspire others to explore eco-friendly practices.

In exploring the potential of natural local fiber waste composite for printmaking matrices, we delve deep into innovative techniques, creative vistas, and environmental dividends that this remarkable material offers. Through discerning examination of case studies, daring artistic experiments, and profound theoretical considerations, the aim is to illuminate the transformative impact this sustainable practice can bestow upon printmaking.

As this inspiring journey unfolds, there is an open invitation to artists, educators, and enthusiasts alike, beseeching all to join in reimagining printmaking through the lens of sustainability. Embrace the boundless potential of natural local fiber waste composite, for in doing so, visually captivating artworks are crafted and a more environmentally conscious and impactful artistic practice is championed.

## **Literature Review**

### **Printmaking**

This literature review goes into extensive detail regarding printmaking. It begins with an introduction and a basic definition of printmaking, as well as what constitutes original printmaking. It is followed by a review of printmaking processes, including explanations of each technique as well as the tools and equipment utilised. Furthermore, it clarifies and elaborates on all printmaking terms used in the creation of printmaking artwork. This chapter

also includes a brief history, definition, technical, medium, and concept of alternative printmaking. Finally, it reveals art philosophers' style theory.

According to Antony Griffiths (1980), a print is a graphical image made through a method that allows it to be multiplied. A single surface called as matrix is utilised to generate prints. The five most popular matrix forms are metal plates for engraving and etching, stone for lithography, wood blocks for woodcuts, linoleum for linocuts, and fabric panels for silk screening. To begin, a design must be created on a flat surface, such as a steel plate, a wood block, or a piece of linoleum. It is then inked and printed. Thus, surfaces with designs, such as an etched plate, will be printed with images embossed onto a sheet of paper or other materials, such as satin or vellum.

Printmaking is also regarded as an important graphic art form. The term graphic art is described in the book *Encyclopaedia of the Arts* (1966) as a collective term that focuses on drawing, writing, etching, lithography, aquatint, silkscreen, woodcuts, linocuts, and several other graphic art techniques. Printmaking, like painting, drawing, and sculpting, is one of the disciplines used to create visual artwork. According to the *Encyclopaedia Britannica*, printmaking is defined as follows:

"the production of images normally on paper and exceptionally on fabric, parchment, plastic or other support by various processes of multiplication; more narrowly, the making and printing of graphic works by hand or under the supervision of the artist."

*Encyclopedia Britannica* ( )

As stated by Michael Stuart Green ( ), the term print should be reserved for the products of autographic printmaking techniques carried out individually by artists, i.e. prints manufactured by artists from matrix created by them. Such work has a high intrinsic value because it was conceptualised and executed by the artist.

According to Michael Melot (1981), the smaller common denominator can be found in the root meaning of the term "print," which conveys the idea of impressing or transferring a design or image from one surface to another.

Jon Pengelly (1997) defines prints and printmaking differently in his thesis. He gave the following definition of print:

"An impression taken from a matrix, altered physically, medium or plate from which a chemically or electronically after the artist's own design, in order matrix - the physical print (image transfer) takes place. For example: woodblock, that an impression or record of that design may be transferred to stone or screen mesh and frame. Transfer by physical pressure, electrostatic and thermal processes. Metal etching plate, lithographic another substrate or medium (usually paper). This definition includes transfer by physical pressure, electrostatic and thermal processes."

Jon Pengelly (1997)

And the definition of printmaking is:

"The process of making multiple or single original works of art in which the artist directly engages

single or multiple print processes: relief - lino-cut, woodcut, wood engraving; intaglio - etching, engraving, drypoint; lithographic - direct, offset; stencil - screen print, pochoir; electronic - photocopy, laser, inkjet, or photographic means. The artist alters or exploits any of these printing processes or any combinations of these printing processes, in this definition presented in order to derive creative solutions from the physical, chemical or this thesis is derived from an electronic manipulation of the printmaking process”.

Jon Pengelly (1997)

According to the definition above, prints can be produced on most surfaces by hand or by specific devices supervised by the artist. Most prints may be generated repeatedly by re-inking the printing block. The matrix is created first, followed by the pulling of a print by pressing a paper against the inked surface of the matrix.

### **The History of Printmaking**

The history of printmaking began in China (around 105 A.D.) approximately a decade ago. After the invention of paper in the mid-15th century, the printing industry began to disseminate knowledge, ideas and practices. First and foremost, the process of printmaking was exported from the west to the east, and relief printing was introduced. With this in mind, relief printing is a primary or central printing technique in which ink is applied to the surface of a block, matrix, or plate and then brought into contact with paper. In conjunction with this assertion, the renowned foundation affiliated with printmaking is fine arts. The terminology and definitions of fine arts are associated with intellectual purposes, creative labour, diversity, and imaginative aesthetic value or beauty.

In addition, there was evidence regarding the development of printing in China. At the beginning of the seventh century, the Chinese figured out how to make multiple copies of print on paper using only ink. This technique was known as inscribed. Rubbings are referred to as inked squeezes (effect print) by producing exact reproductions that can be documented, transported, or distributed in a variety of ways. In addition to this technique, a second method removes the paper from the stone by tapping the surface with an inked pad after the paper has been laid on a dry surface.

Similarly, the stone rubbing was a technique for transferring images onto other surfaces via rubbing. As early as the second century, one of the matrix used for stone polishing was a wooden block. In order to study their scriptures or classical texts, Chinese academics utilised stone rubbing on relief printing in the second century, following the invention of paper in their country. They also began to invest in or produce sacred images, which were then carved onto large, flat stone slabs and accompanied by engraved or printed classic texts. In addition to incising the lines to initiate the printing process, moist paper was pressed and shaped on the surface to retain the paper in the incised lines. Thus, after applying ink and delicately removing the paper, the images will appear on the paper. Stone subtraction is a fundamental technique that has been employed and utilised throughout the era. India's printing development has been extending steadily. Buddhism adopted this newly-introduced method of block printing (868 CE). Images and text were printed on a single block. In addition, Japan has adopted the Chinese system, and its visual arts have flourished tremendously.

Through visual symbolism, all images are profoundly influenced by their surroundings, including flora and fauna, animals, and life. Relating to the history of China, the Japanese also developed relief printmaking as an art form. Ukiyo-e, also known as "pictures of the floating world," is one of the most well-known prints. The Ukiyo-e were printed in monochrome. The Japanese graphic arts emerged gradually in the middle of the 18th century. Typically, the Japanese art style tends to simplify or minimise the form of the subject, such as the subject's or object's characteristics. Ukiyo-e is well-known in the west for its use of woodcut techniques during the nineteenth century. This is because Ukiyo-e prints were developed in various methods, including dramatic techniques, the distinctive use of line and colour, and landscape or portrait styles.

Despite the fact that Ukiyo-e has developed tremendously in terms of design and technique, it was created specifically for the general public. From postcards to the world of fashion in two and three dimensions, Ukiyo-e's characteristic colours, shapes, design, and composition have been applied in a variety of ways. Some printmaking artworks are also created for residential wall decoration. In truth, the Japanese popular theatre of the era lent this print's dramatic colouration to the era's most renowned artist. Some of the printings, such as T'oshusai Sharaku, only emphasised the poet's appeal. This artist frequently utilised melodramatic subject matter and began emphasising and exaggerating facial lines into attractive customs. The majority of Ukiyo-e are printed in a variety of styles. Utamaro, many of the subjects only focused on female figurative form. He frequently uses the female figure to symbolise nature's intimacy and candour. He applied the quality of delicate lines to the compositional elements. The draftsman ship was extremely specific in terms of form and subject. In the 15th century, paper was established all over the world and in several regions, including Germany, France, and Italy. Generally, the first woodblock prints were created and produced in the Western world. The Western turn to Gothic and horrific images were crudely cut, inked, and printed from blocks of wood resembling printing processes. The purpose of Western arts was entertainment. Playing cards were the primary focus of their efforts to disseminate the printing era, as it is reproducible in large quantities and is also educational. In western churches, Gothic images were frequently used as the central image on the wall, depicting figures such as Jesus Christ and the Virgin Mary. All the images illustrated biblical narratives. Most illustrations are integrated with the text, and the quality of the illustrations has also improved over time.

### **Original Print**

The growth of printing has resulted in an almost endlessly multiplied number of images being reproduced each day, and most of the images that have been invented for newspapers and magazines, in addition to those for billboards and computer screens, all play a vital role in expanding our understanding of print. Prints are works of art that an artist produces by producing multiple copies of an image printed on one surface many times. In the field of printmaking, new techniques such as silkscreening, lithographic stone or plate printing, and woodblock printing are being introduced. In order to prepare all of things the artist will need paper and ink. Along with the techniques that the artist needs to complete in order to prepare the surfaces, the ink needs to be removed onto a piece of paper or another material in order for it to be considered an original print. There should always be clarity between an original print and a replica. This is due to the fact that the reproduction of an original work of art print was created using photographic mass production processes. The creative process as it relates to the artist's content skills. The very first print, also known as the original print, which was

inked by the artist and also supervised by them. It is required to have a unique design and composition, and the process of making it must be an integral element of the creative act as a whole.

### **Printmaking Techniques**

In printmaking, there are seven techniques and styles: relief print, intaglio, collagraph, lithograph, screenprint, digital print, and monoprint. Woodcut and linocut are the two subcategories of relief printing. While highlighting in intaglio, three categories are highlighted: etching, drypoint, and aquatint. The intaglio process can be tough because the artist must scratch or etch into the printing substrate or surface. The most common intaglio surfaces are zinc, aluminium, copper, plastic, coated paper, or magnesium.

### **Woodcut (Relief)**

The technique involves the use of a plank of wood or plywood. The artist draws an image and then carves wood. There are only one or two colors that can be applied to the block at one time. If many colors are required, a separate block must be provided and carved for each. The most important thing is that the image must align precisely with all the images from the other blocks.

### **Linoleum Cuts (Relief)**

Linoleum cuts or linocuts are almost identical to woodcuts; only the material is different. The artist works on battleship linoleum that is commonly used in the kitchen today. All the processes, including the inking, are the same as in woodcuts.

### **Etching (Intaglio)**

Etching is one of the most significant intaglio engraving techniques. It consists of applying acid-resistant ground over a zinc-specific metal plate. Although copper is also utilised in this process, utilising zinc yields the most significant results. All in all, the metal is exposed on the artwork's surface and drawn onto the material. Nitric acid then dissolves the plate, incising the lines to be inked and printed like a traditional intaglio engraving. This lengthy process requires a lot of patience as it progresses. To produce a successful printing result, particularly with regard to the finished appearance of the printed artwork, a specific technical solution and knowledge are necessary. The plate is constructed of zinc, which has mostly replaced copper as an acid-resistant material. The metal is first exposed using acid after lines are drawn on the ground. After that, the plate is submerged in acid, where the metal is exposed to oxidation and forms incised lines. More eroded lines will appear with increased exposure to acid and force. The buried lines' resistor is removed, and ink is added; however, the ink is then removed from the surface. The printing press is then used to apply heavy pressure on the plate as it is moved towards the paper to transfer the ink from the recessed lines. Occasionally, ink may be left on the plate's surface to create a background tone.

### **Wood Engraving**

Wood engraving is a little bit different from woodcut. In this printing, a piece of boxwood is cut perpendicular to the grain of the wood. Unlike the woodcut, wood engraving is an excellent form of woodcutting. Using blocks made from the end-grain of wood, the artist can work in detail and tonality. Wood engravings are usually small. Usually, the size of the block is under 5 x 6 inches because boxwood does not grow very big.



### **Stamped Prints**

This printing is the most basic of all print processes. It consists of simply applying ink or paint to something and transferring the ink to the surfaces to be printed. This process includes such simple things as rubber stamp print, potato block, fingerprints, and handprints.

### **Collagraph**

Despite the lack of a burin or the use of acid, collagraph typically falls under the intaglio category because the incised mark can serve as a container for the ink. Collagraph images can be printed using the intaglio technique; however, modern blocks also use the relief technique. A block of wood, metal, or hardboard is covered with layers of materials, such as string, eggshells, and found objects, and these layers are then glued or fastened together to create a collage. The block can be used to print an embossed picture, a relief, an intaglio plate, or even without any ink.

### **Lithograph**

The process of lithography involves drawing the image on a piece of limestone or a specially treated metal plate. The limestone has been given a material treatment so that when ink is applied on the stone, it will adhere precisely to the drawn lines. A high-pressure press is then used to transfer this image on a piece of paper.

### **Alternative Printmaking**

Change, renewal and progress will occur in human civilization. Similarly, art spans the stone period, the Egyptian era, the Renaissance, and the 20th century. Similarly to sociocultural and human culture, the visual arts are undergoing change and progress. In every human society, art is a component of a complex structure of beliefs and rituals, moral and social codes, mysticism or science, myth, or history, according to Stephen Farthing (2010). It stands between scientific comprehension and mystical or mythical thought, between human capacities and human inspirations. A print is essentially a sheet of paper on which a design is imprinted from a matrix made of a chosen medium, which is typically wood, metal, or stone. In an original print, as opposed to a photomechanically produced reproduction, the matrix is created by hand.

As a result of the invention of photography, new media, and technology, there is a revolution in communication throughout the entire nineteenth century. This revolution gradually affected printmaking, thereby expanding the variety and quality of visual media used in art creation and introducing numerous influences and variables. The innovation stimulated the art of printmaking in terms of materials and techniques. The invention of photography has had a significant impact on printmaking because photographic reproduction processes have endangered hand printing techniques. Combinations of both techniques, utilising the novel opportunity of photography and the hand-printing method, have preserved the artistic platform for artists.

Olympia Lambert (2009) stated that contemporary artists endeavour to label their own historical markers, from the earliest woodcut trees from the 15th century to the emergence of the most recent advancements in digital technology from the 21st century. TV and computers have enhanced the artist's visual language, which has been applied to the artwork. Technical capability affords art in the medium, performance, and presentation disciplines a variety of opportunities. Printing on materials and textiles inspired and influenced printing on

papers in addition to other factors. When fabric was rediscovered as a printing base, it was handled similarly to other materials and substrates.

The printing process has been implemented in either a two-dimensional or three-dimensional format and can be combined with other substances. No longer are artworks reproduced in two dimensions on flat surfaces. By applying pressure to a fabric and damp paper, it is possible to create an embossed and a relief form. As paper has become a larger component of print, the invention has been incorporated into its production. The paper was manipulated by controlling the casting and manufacturing processes to achieve specific effects. In addition, paper can be transformed into images during the papermaking process, so paper casting may be as distinct and versatile as any other medium. Paper can be cast over three-dimensional objects and collographic plates. This enables the printing of high-quality sculptures. Combinations of conventional printing techniques with fragments of distinct media make use of a vast array of printing skills and technology.

Printmaking techniques also include the use of plastics such as acrylic, polyester, metal, clay, and other materials that can be printed or embossed. Additionally, printmaking can be described as diverse in both its method and its product. Multiple refers to three-dimensional edited art objects utilised in the creation of printmaking artwork. Bahaman Hashim (1995) in *Alternative Printmaking Catalogue Exhibition* mentions that for half a millennium printmaking definition remained valid, but contemporary developments have stimulated a significantly more expensive view of the meaning of printmaking.

Today, a print is more likely to be defined as two- or three-dimensional images or forms produced through a process or combination of processes that can produce multiple reproductions or even unique pieces. Bahaman also enumerated the latest perspectives on innovation in printmaking.

### **Wastage Material of Natural Resources**

In previous years, the deterioration of waste management and the environment of the wood-based product has become a global issue among developing countries. Recyclables and environmental safety have become increasingly essential and consumer pressure on the manufacturer of the material. The products to consider the environmental impact of their products at all stages of their life cycle, including ultimate disposal of wood flour or wood waste (Peijis, 2002). Wood waste sources are primarily from construction projects, land clearing, and wood-based industries. The wood-based industry especially comes from the pallets and packaging industry, which reach almost 70% of the original wood volume (Suttie, 2004). Wood waste can usually be a valuable secondary material because it can be used in a wide variety of processes such as particleboard, flakeboard, fiberboard, and others. Malaysia, as a developing country, has the same products based on wasted material. Wood-based industries, particularly sawmilling, plywood, molding and chipboard, have expanded rapidly since the 1980s. Currently, more than 5000 manufactures are involved in wood products, including sawn timber, veneer plywood, moldings, medium density board, and furniture (Anonymous, 2005). According to Anna Thibodeaux, solid wood alternatives are considered agricultural waste like wheat straw, rice straw, sugarcane fiber and barley straw. Aided by special resins, these alternatives were compressed into products such as particleboard and medium-density fiberboard (M.D.F.).

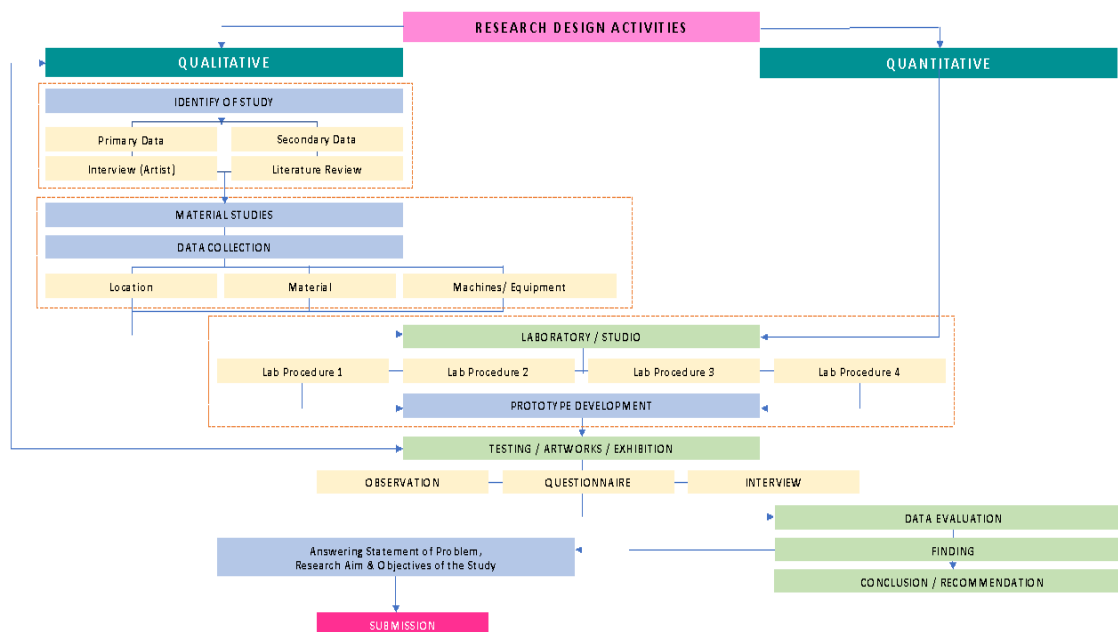


## Methodology

### Multidisciplinary Approach

The study research framework (Figure 1) for exploring the potential of natural local fiber waste composite for printmaking matrix involves a multidisciplinary approach that combines artistic experimentation, semi scientific analysis, and environmental considerations. The framework is designed to investigate various aspects of this innovative practice, including material properties, artistic techniques, and the ecological impact.

Figure 1: Research Framework



### Material Analysis

The research begins with a comprehensive analysis of different types of natural local fiber waste composite. This involves identifying locally available fibers, examining their physical and chemical properties, and evaluating their suitability as printmaking matrices. Scientific methods such as microscopy, spectroscopy, and mechanical testing may be employed to assess the fibers' characteristics and their potential for artistic use.

### Artistic Experimentation

Artists play a central role in the research framework, as their creative exploration drives the innovation and development of new printmaking techniques. Through a series of artistic experiments, artists test the compatibility of natural local fiber waste composite with various printmaking processes, such as relief printing, intaglio, or screen printing. They explore the material's responsiveness to different tools, inks, and substrates, and document their findings.

The research framework also delves into the aesthetic possibilities of using natural local fiber waste composite as a printmaking matrix. Artists investigate the unique textures, patterns, and visual effects that can be achieved with this material, considering its inherent characteristics and the manipulation techniques employed. This exploration may involve creating a range of artworks that demonstrate the diverse artistic expressions made possible by the composite.

### **Sustainability Assessment**

An essential aspect of the research framework is the evaluation of the ecological impact and sustainability of natural local fiber waste composite as a printmaking matrix. This includes assessing the environmental benefits of repurposing waste materials, quantifying the reduction in carbon footprint compared to traditional matrices, and considering the overall life cycle analysis of the composite. Environmental scientists and sustainability experts may be involved in this evaluation.

By combining semi scientific inquiry, artistic exploration, and studio assessment, the study research framework seeks to provide a comprehensive understanding of the potential of natural local fiber waste composite for printmaking matrix. It aims to inspire artists, researchers, and educators to adopt sustainable materials and techniques, while fostering innovation and creativity in the field of printmaking in artistic practise.

The exploration of the potential of natural local fiber waste composite for printmaking matrix yields significant findings and discussions that contribute to both the artistic and environmental aspects of this innovative practice. The results encompass material properties, artistic outcomes, and sustainability considerations, fostering a deeper understanding of the benefits and challenges associated with using this composite in printmaking.

### **Result and Discussion**

The exploration of the potential of natural local fiber waste composite for printmaking matrix yields significant findings and discussions that contribute to both the artistic and environmental aspects of this innovative practice. The results encompass material properties, artistic outcomes, and sustainability considerations, fostering a deeper understanding of the benefits and challenges associated with using this composite in printmaking.

### **Sustainability Assessment**

#### **Material Properties**

**Fiber Selection:** The research reveals that the selection of locally available natural fibers plays a crucial role in determining the characteristics of the composite. Different fibers, such as plant stalks, leaves, or agricultural by products, exhibit varying textures, colors, and structural properties, which directly influence the final print outcomes.

**Composite Formation:** The study demonstrates various techniques for processing and combining natural fibers with binders or adhesives to form a stable composite material suitable for printmaking. Factors such as fiber-to-binder ratio, curing methods, and surface treatments significantly affect the composite's strength, flexibility, and durability.

#### **Artistic Outcomes**

**Texture and Visual Effects:** Artists' experiments with natural local fiber waste composite as a printmaking matrix reveal its potential for creating unique textures and visual effects. The inherent qualities of the fibers, such as their irregularities and surface patterns, translate into richly textured prints that add depth and tactile qualities to the artwork instead of how the artist manipulate the matrix itself into relief or intaglio prints.

**Ink Interaction:** The research indicates that the composite's porous nature and surface characteristics allow for interesting interactions with different types of inks. Artists find that

water-based inks, for example, may be absorbed differently compared to oil-based inks, leading to variations in color saturation and ink retention, further expanding the artistic possibilities.

**Printmaking Techniques:** The study explores the adaptation of various printmaking techniques, such as relief printing, intaglio, and screen printing, to work with natural local fiber waste composite matrices. Artists successfully demonstrate that the composite material can be carved, etched, or applied with stencils to create intricate and detailed prints, showcasing the versatility and adaptability of the composite in different artistic approaches.

### **Sustainability Considerations**

**Waste Reduction:** The research emphasizes the environmental benefits of utilizing natural local fiber waste composite as a printmaking matrix. By repurposing locally available fiber waste, artists contribute to waste reduction and reduce the demand for virgin resources. This practice aligns with sustainable principles, promoting a circular economy within the art world.

### **Recommendation**

**Material Research and Development:** Encourage further research and development of natural local fiber waste composite materials specifically tailored for printmaking matrix. This includes exploring different combinations of fibers, binders, and surface treatments to enhance the material's properties, durability, and compatibility with various printmaking techniques.

**Artistic Experimentation and Collaboration:** Encourage artists to continue experimenting with natural local fiber waste composite matrices and collaborate with researchers, scientists, and other artists to exchange knowledge and techniques. This collaborative approach can foster innovation, inspire new artistic expressions, and deepen the understanding of the material's potential.

**Education and Workshops:** Organize workshops, seminars, and educational programs to educate artists, students, and the wider artistic community about the potential of natural local fiber waste composite for printmaking matrix. Provide hands-on experiences and demonstrations to showcase the material's unique qualities, techniques for manipulation, and environmental benefits.

**Sustainability Integration:** Encourage artists to integrate sustainability considerations into their artistic practice beyond the choice of materials. This may include exploring eco-friendly printing inks, responsibly sourcing additional art materials, and implementing waste management strategies in the studio. Promote a holistic approach to sustainability within the artistic process.

**Documentation and Dissemination:** Document successful case studies, artistic experiments, and outcomes using natural local fiber waste composite matrices. Publish articles, books, and online resources to disseminate knowledge and inspire other artists, educators, and researchers to explore and adopt sustainable printmaking practices. Foster a community of practice centered around eco-friendly materials and techniques.

**Industry Engagement:** Collaborate with printmaking suppliers, manufacturers, and art organizations to raise awareness and promote the availability and accessibility of natural local fiber waste composite materials. Encourage them to offer sustainable alternatives and support artists in transitioning to eco-friendly materials or possibilities for new matrix.

**Exhibition and Recognition:** Promote the inclusion of artworks created using natural local fiber waste composite matrix in exhibitions, galleries, and art events. Recognize and celebrate artists who embrace sustainable practices, highlighting their contributions to both artistic innovation and environmental stewardship.

By implementing these recommendations, the artistic practice of utilizing natural local fiber waste composite for printmaking matrix can flourish. Artists can further explore the material's potential, advance sustainable techniques, and inspire a wider adoption of eco-friendly practices within the art world. Through collaborative efforts, education, and recognition, the artistic community can contribute to a more sustainable and environmentally conscious future.

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