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## An Inventive Approach to Arts and Crafts Experimentation Using Unconventional Materials with Innovative Methods.

Shree kant<sup>ab\*</sup>, Dr. Saroj Kumar Das<sup>a</sup>

<sup>a\*</sup>Institute of Design Nirma University S G Highway, Ahmedabad-382481, Gujarat, India

<sup>b</sup>Department of sculpture ,faculty of visual arts, Banaras Hindu University Uttar Pradesh 221005, India ORCID: <https://orcid.org/0000-0002-4893-1248>

**Dr. Saroj Kumar Das<sup>a</sup> (Corresponding Author)\***

<sup>a</sup>Institute of Design Nirma University S G Highway, Ahmedabad-382481, Gujarat, India, ORCID- <https://orcid.org/0009-0008-4642-8121>

Email: <sup>a</sup>shreekant331@gmail.com, <sup>b</sup>saroj.ku.d@gmail.com

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### ABSTRACT:

The use of non-traditional materials within the fields of art, craft, and design embodies a dynamic and inventive methodology towards artistic manifestation, environmental consciousness, and inter-professional cooperation. This paper explores the many consequences and ramifications associated with the utilization of non-traditional materials, including recycled and reused resources, natural elements, industrial elements, and discovered things. This abstract also highlights the importance of interdisciplinary collaboration in promoting innovation at the intersection of art, craft, science, and technology. Practitioners collaborate to develop inventive techniques for manipulating materials, creating items, and inventing ideas. Professionals utilize unusual substances to inspire others, urging them to reassess their relationship with materials, embrace the experimental process, and actively contribute to a future that is more resilient and harmonious for both the creative community and the environment.

**Keywords:** Unconventional materials, Experiments, Arts & Craft, Form, sustainability, innovation.

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## 1. Introduction

Unconventional materials provide people with a distinct opportunity to express their personal identity. Artists can increase the complexity and depth of their creative work by incorporating aspects with specific historical or cultural significance, thereby infusing personal meaning into their artwork. Using unconventional materials has great potential, but it also presents challenges. To fully understand the characteristics and constraints of creative materials, such as durability, flexibility or drawbacks, artists may have to conduct significant experimentation. The use of unconventional materials in crafts can help connect multiple disciplines such as art, design and science. The fusion of artistic vision with the scientific method can lead to unprecedented innovative discoveries through collaboration between artists and experts from multiple fields. The use of unconventional materials in crafts encourages community involvement. Workshops and activities focused on these areas provide people of all ages and backgrounds with the opportunity to explore their creativity and build relationships with others. Artists working with unconventional materials draw inspiration from a variety of sources such as the natural environment, technological advancements and cultural heritage. Their artwork has the ability to challenge and change perceptions, prompt reflection, and inspire people to reevaluate the possibilities of common objects. The field of crafts using unconventional materials is constantly advancing as artists push boundaries and explore innovative concepts. As society becomes more aware of environmental issues, there has been a significant increase in the use of sustainable methods and creative techniques in the field of artistic expression. Unconventional materials provide a distinctive and thought-provoking medium to express creativity, promote environmental awareness, and foster innovative thinking. Artists produce engaging, provocative, and inspiring works by defying norms and embracing innovation. The use of recycled or salvaged everyday items for creative purposes, including but not limited to newspapers, plastic bottles, cardboard, and old clothing. Natural organic materials, including leaves, twigs, feathers, shells, seeds, and animal bones, are used in a number of applications. Recycled parts or products often used in industrial or technical operations, including cables, circuit boards, machine parts and electronic components. Consumable items such as pasta, rice, spices or confectionery contain colour, texture or form characteristics that make them suitable for various applications. Unusual items found in the common surroundings, such as metal fragments, discarded items, damaged toys or urban rubbish. Unconventional artistic materials such as resin, plaster, concrete, silicone or foam have the ability to be handled in non-traditional ways, so being able to create distinctive textures and shapes. Unconventional textile art sometimes uses fabrics or materials that are not commonly used, such as plastic bags, rubber bands, paper or unusual fibers. Unconventional materials in art and craftsmanship promote creativity, adaptability and originality, often challenging the conventional. They also contribute to sustainability by reducing waste and promoting environmentally friendly practices. Unconventional materials refer to substances and objects that are not commonly used in arts and crafts. Materials include a variety of objects, including repurposed or recycled materials such as newspapers and plastic bottles, natural materials such as leaves or feathers, industrial parts such as wire or circuit boards, food items, found objects such as metal scraps or discarded furniture, non-traditional substances such as resin or plaster, and non-traditional textiles such as plastic bags or rubber bands. By using unconventional materials in their creative works, artists and craftsmen not only leverage limitless creativity and innovation, but also promote sustainability by reusing objects that would otherwise be discarded. This technique breaks away from traditional creative processes and encourages exploration, experimentation, and the creation of unique and intellectually engaging artworks that go beyond conventional boundaries.

**Objective:** The research aims to explore the artistic and creative potential of unconventional materials, challenging conventional assumptions to encourage creativity. The exploration will include a range of unconventional materials, such as recycled materials, organic substances, industrial components, finding items, and non-traditional textiles, in order to comprehend their unique properties, textures, and possibilities for creative applications. The project aims to disrupt standard creative approaches by using unconventional materials to foster creativity, originality, and awareness of social and environmental dimensions. We will promote inter-professional collaboration to deepen our understanding of unconventional materials and their artistic possibilities. Community participation will be facilitated via workshops, exhibitions, and promotional events, which will encourage people from all age groups to discover and nurture their creative abilities while additionally teaching them about sustainable art-making techniques.

A cultural environment will be promoted that encourages experimentation, risk-taking, and ongoing learning. The research will advocate for responsible consumerism, waste reduction, and the transformation potential of art to inspire social and environmental change within the art community. The goal is to showcase the boundless possibilities of non-traditional materials in art and craft, motivating people to reconsider their perception and use of materials in their surroundings.

### **The Methodology of Using Unconventional Materials:**

Select materials based on their unique characteristics, visual appeal, and suitability for the selected artwork. You should consider factors such as texture, color, strength, and availability when making a selection. It may be possible to discover unexpected possibilities when testing a range of materials.

Preparation and processing Unconventional materials may be prepared for use by the process of sanitation, cutting, shaping, or blending them as needed. To enhance the utility or durability of some materials, it may be essential to use certain treatment or manufacturing procedures.

Examination and Legal Proceedings Develop a mentality characteristic by curiosity and research in order to discover the creative potential of unconventional materials. Explore different approaches, improvements, and combinations to discover unique textures, forms, and effects.

The integration of traditional approaches Integrate unconventional materials with conventional creative or craft techniques to create artworks that are harmonious and effective. This research explores the capacity of various materials to enhance or degrade traditional methods, thereby adding complexity and depth to the creative process.

Adaptation and innovation Stay open to adapting and implementing new approaches while working with unconventional materials. Embrace unexpected outcomes and challenges as opportunities for personal growth and creative expression.

The process of conceptualization and design involves the development and creation of ideas and plans. Create a clear and logical structure and strategy for your artwork, taking into account the unique characteristics and possibilities of the chosen materials. It is important to analyse the relationship between the material selections and the intended message, theme, or narrative of the artwork.

Proficiency in technical skills and creativity in artistic expression Develop and enhance technical skills and artistic abilities to effectively handle and control unconventional materials. To achieve the desired aesthetic and structural integrity in one's work, it is crucial to develop precision and attention to detail.

An analysis of ethical and environmental considerations The study discusses the ethical and

environmental implications of using non-traditional materials, focusing on sustainability, resource use, and waste generation. Consider re purposing products and promoting sustainable practices in order to mitigate adverse effects on the environment.

Create a documentation of your creative process and reflect on your experiences using unconventional materials. Keeping documentation, including notes, sketches, photographs, or specimens, will facilitate learning and future experiments.

The subject of focus is community involvement and collaboration. Engage in the artistic community and promote cooperation with other artists, creators, or experts in related fields to share ideas, knowledge, and personal experiences. Individuals might participate in seminars, displays, or events to showcase their work and inspire others to explore the possibilities of unconventional materials.

Artists and creators has the capacity to use unconventional materials in order to produce unique, intellectually engaging, and artistically interesting artworks that challenge conventional standards and inspire novel perspectives on perception and creativity.

### **Research Gap:**

Research into non-traditional arts and crafts materials has advanced in recent years. However, our understanding and research of this topic are lacking.

Crafting using non-traditional materials has been studied for its environmental, social, and economic impacts. To encourage environmentally aware behaviour, materials must be assessed for sustainability, including carbon emissions, resource use, waste minimization, and other factors.

Compared to more conventional art materials, rare materials face several durability and conservation concerns. Additional study is needed to understand material deterioration and devise techniques for conserving atypical art for future generations.

Non-traditional materials' health and safety consequences are poorly documented. To safeguard artists and creators, certain substances' allergenic, toxicity, and chemical interactions must be studied.

Cultural and aesthetic analysis Unconventional materials are increasingly valued for artistic expression. These hobbies have little academic studies on their artistic and cultural components. More study is needed to understand how artists choose, change, and characteristic non-traditional materials in different creative and cultural settings.

Education and teaching Research on using atypical materials in art education and teaching is lacking. Curriculum development and instructional strategies for incorporating non-traditional resources into community arts initiatives, higher education institutions, and elementary and secondary schools need further study.

Current market and industry trends analysis Despite the rise of sustainable and ecologically aware art, academic research on market trends, customer preferences, and business dynamics for non-traditional art is scarce. These pioneering works' economic significance, indispensability, and the role art institutions, museums, and galleries play in promoting and aiding non-traditional artists deserve more study.

By studying these lesser-known fields, we may learn about the pros and cons of using non-traditional materials in art and handicraft. Thus, this knowledge may influence future methods, policies, and advancements in this field.

## Experiment: Fig no 1



Fig no .1 Siali creeper experiments ( Experiment by Sravishta Damre Institute of Design, Nirma University)

### Materials: Siali (Fig no .1

The perennial creeper known as Siali (*Bauhinia vahlii*) Originating from the Indian subcontinent, the Mankadia tribe dwelling in Odisha, India, heavily relies on it for their livelihood. This study examines several facets of Siali, including its botanical attributes, customary applications, cultural importance, and the obstacles encountered by the Mankadia community as a result of restricted resource availability and competition from plastic commodities.

#### A.The botanical attributes.

Siali is a rapidly growing vine, with a maximum height of 50 feet per year. The leaves of this plant have two lobes and may reach a length of 18 inches. The stems and petioles are adorned with reddish hair. The seeds of this plant, after roasted, may be consumed.

#### B.Conventional applications

The Mankadia tribe has used Siali for years to produce a diverse range of environmentally beneficial and long-lasting items such as ropes, baskets, bowls, flower pots, and wall hangings. Their proficiency in Siali craftsmanship is transmitted throughout several generations, and their goods are renowned for their robustness and elegance. Siali leaves are used in the production of plates.

Food: The Mankadia tribe relies on the roasted seeds of Siali as a primary source of sustenance.

Siali is recognised for its therapeutic benefits within the context of ancient Ayurvedic procedures.

#### C.Cultural importance

The mythology posits that Lord Krishna's death occurred upon a bed constructed from Siali lata, a botanical term denoting a climbing plant. The aforementioned affiliation contributes to the cultural importance of Siali within the Mankadia tribe.

The principal source of income for the Mankadia people is the Siali craft. The sale of their artisanal items enables them to satisfy their fundamental necessities and maintain their customary lifestyle.

**D.Obstacles and hazards :**

The Mankadia tribe's eviction from their native area inside Similipal National Park has resulted in limited access to Siali, adversely affecting their means of subsistence.

The presence of inexpensive and vibrant plastic goods has resulted in a decline in the market demand for traditional Siali crafts, so posing a significant danger to the economic prosperity of the Mankadia community.

The decline in younger generations' engagement in Siali craft, mostly driven by economic constraints, poses a potential threat to the preservation of traditional knowledge and skill sets. Siali has significant importance among the Mankadia tribe, since it is intricately connected to their cultural identity, customs, and economic prosperity. Safeguarding their ability to use this resource, advocating for sustainable Siali craft methods, and establishing an equitable market for their goods are essential measures to guarantee the preservation of this distinctive cultural heritage.

The analysis of Siali, the creeper that has significant cultural significance among the Mankadia tribe, reveals its distinct capacity to serve as both a cultural emblem and a multifaceted creative medium. A comprehensive depiction of the use of Siali fibres provides a clear portrayal of its inherent physical characteristics and the diverse range of creative potentials it offers.

**Fibrous Characteristic:** Siali was thinned by dividing the bulky fibre into strands. This shows that Siali is fibrous like jute and flax. A subtle brownish tinge improves the material's earthy appearance, making it ideal for rustic or organic projects.

**Water-based change:** My observation of Siali's remarkable transformation after soaking is crucial. The material responds to water treatment by becoming stronger and more flexible. This allows me to manipulate the material in different ways, making shaping and interlacing easier. The soaking process changes these properties, expanding creative possibilities.

This fabric shows the versatility of wet Siali in textile applications because to its excellent weaving. When the braided portion is cooked, the water becomes a deep scarlet. This suggests that the fibre may contain dyes or instants, opening up natural colouration research.

**Forming and shaping:** Striking through a wet and cooled Siali shows its shape ability when handled properly. The above feature and its ability to hold form when drying make it suitable for three-dimensional creations.

**An Analysis of Fevicol:** Fevicol is a very prevalent brand of adhesives in India. The particular kind I used is most likely classified as Polyvinyl Acetate (PVA), which is well recognised as white glue. Polyvinyl alcohol (PVA) adhesives function by establishing hydrogen bonds with the surface of the substance, resulting in a strong mechanical binding upon drying. The presence of water in the glue provides an initial level of flexibility, allowing me to mould the Siali. However, when the glue dries, the water evaporates, resulting in a firm and inflexible bond.

**Obstacles and Adjustments:** we successfully addressed the problem posed by the weight of the wet Siali and the natural airiness of the balloons by securely fastening the material to the mould.

**Desiccation and solidification:** The Siali was subjected to a 12-hour drying period after each manipulation, which facilitated the complete curing of the Fevicol bond and hence ensured the structural integrity of the final shape.

This creative manifestation exemplifies the capacity of this substance to transcend conventional craftsmanship and go into the domain of modern art.

The conclusion reveals that Siali has the potential to be a material that has great cultural importance and offers several creative possibilities. The material's water responsiveness, wet malleability, and dry form-holding capacity provide a unique environment for conducting

experiments. other investigation into the natural dyes and compatibility of the material with various adhesives has the potential to provide other creative possibilities. The amalgamation of conventional wisdom and current methodologies might revitalize this age-old substance, guaranteeing its significance in the contemporary day.

Final Product: Fig no.2



Fig no.2 Final form through the siali creeper (Form created by Sravishta Damre Institute of Design, Nirma University)

## 2. Discussion

A lot of different topics come up when people talk about the use of Unconventional materials in art and craft, such as creativity, sustainability, innovation, and cultural expression.

New and original thoughts and ideas Artists and makers are encouraged to think outside the box and question established practices when they use unusual materials to make things. When artists work with unusual materials, they often come up with new styles and forms that fascinate and excite people.

Being creative and aware of the surroundings One strong case in favour of unconventional materials is that they might help people become more aware of the environment. Artists may help the earth, save money, and go against consumerist ideas by finding new ways to use old things. Sustainability is an idea that fits in with larger social trends towards caring about the environment and managing resources responsibly.

More research into texture and shape Because non-traditional materials offer so many colour, shape, and texture options, artists can use them to make multi-layered works of art that are both aesthetically pleasing and mentally stimulating. When these materials are used to make art, they have a wide range of textures, from smooth natural surfaces to rough industrial edges. These textures are what draw the viewer in and make them feel strong emotions.

Reviews and thoughts on social and culture problems Making use of unusual sources could be a strong way to criticism and comment on society. Using artefact with important cultural or historical value in their works lets artists explore issues like consumerism, social justice, identity, and globalization, making viewers question what they think they know about these topics and what they think is normal.

Experimenting with unusual materials can lead to exciting new ways of expressing yourself, but it also comes with its own challenges and limits. Besides problems with getting and using

materials, artists also have to deal with issues related to how long they last, how dangerous they are, and how to keep them safe. Because these things aren't typical, there are a lot of questions about how they can be used to make money, get people interested, and get help from institutions.

People from art, science, engineering, and engineering are often put together on mixed teams when they are working with unusual materials. Sharing information across fields makes the creative process better and opens up new areas of art and craft by encouraging people to think about and use materials, technology, and ideas in new ways.

The conversation about unusual materials in the arts is shaped by the dynamic interaction of imagination, nature, social awareness, and working together across disciplines. By using unusual materials and pushing the limits of what people think they know, artists promote critical thought, broaden people's views, and improve cultural life.

### **3. Result**

(Fig no.2)

Art, craft, and design using unusual materials creates items with distinct meanings.

Artists make stunning, thought-provoking works that push creative limits. Nontraditional materials are used by artists to engage audiences, evoke emotions, and question established beliefs, contributing to current art trends.

Using abandoned or neglected resources, non-traditional materials improve sustainability. This approach decreases waste and environmental effect and encourages creatives to utilize more sustainable solutions. Innovative objects with purpose and form may be made using non-traditional materials. Designers make recycled plastic furniture and fabric-based fashion art stylish and sustainable.

Cross-disciplinary collaboration between artists, designers, scientists, and engineers enhances art, craft, and technology. Interdisciplinary teams combine knowledge and skills to create new methods to manipulate materials, manufacture things, and design ideas.

In art, craft, and design, unconventional materials communicate cultural criticism and social participation. Artists and designers address consumerism, waste, and environmental harm.

Collectors, galleries, and museums respect and publicist artists that utilize non-traditional materials. As sustainability becomes increasingly vital, eco-friendly arts and designs are becoming more popular and lucrative.

Finally, non-traditional materials in art, craft, and design show ingenuity, innovation, and sustainability. Artists, makers, and designers encourage people to experiment with materials and build a robust and harmonious future.

### **4. Conclusion**

In conclusion, using non-traditional materials in art, craft, and design has important creative, environmental, and social impacts. By employing unconventional materials to produce artworks and designs that engage, motivate, and controversy standards, artists, makers, and designers may explore many creative possibilities. Non-traditional materials demonstrate a dedication to sustainability, as professionals recycle, decrease waste, and promote an Eco-conscious creative environment.

Practical and ethical, sustainability signals a trend towards more ethical and mindful art and design. Non-traditional materials stimulate cross-sector cooperation and innovation in art, handicraft, science, and technology. Professionals collaborate to develop novel material manipulation, industrial, and conceptual design methodologies to boost creativity and problem-solving.

Alternative materials in art, craft, and design demonstrate how creativity, innovation, and sustainability can change things. Artists, makers, and designers' research of uncommon substances pushes others to reconsider their connection with materials, experiment, and actively contribute to a resilient and mutually beneficial creative community and planet.

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