The Future of the Creative Industries

The Future of the Creative Industries: *A Global Perspective*

Edited by

Madhura Yadav and Sampath Kumar

Cambridge Scholars Publishing



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MANIPAL UNIVERSITY JAIPUR, CELEBRATING DECENNIAL YEAR

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PREFACE

As defined by UNESCO, creative industries consist of the "cultural industries, which include publishing, music, cinema, crafts, and design, continue to grow steadily apace and have a determinant role to play in the future of culture." A report by World Intellectual Property Organization (WIPO) 2015 confirms that the creative economy sectors of publishing, broadcasting, advertising, performing arts, crafts, and others considerably contribute to national GDP and wealth creation in both the formal and informal economies. Reports UNESCO, the industries contribute around "3 percent of the global GDP." The importance of creative industries is highlighted because the 74th United Nations General Assembly has announced 2021 as the International Year of Creative Economy for Sustainable Development.

However, it is also ironic that due to many economic recessions at the global and local level, climate change, and more recently, the pandemic, have threatened many of these industries and the communities and individuals associated with them. Through the International Conference of Creative Futures (ICCF'22) hosted by Manipal University Jaipur (focused on the following disciplines and their sub and allied disciplines – Applied Art & Design; Built Environment; Fashion & Textiles; and Spatial Design & Interior Environments), we hope to be able to imagine just, resilient, safe, inclusive, and sustainable futures.

The conference theme has been identified as follows:

- 1. Buildings and Urbanscape
- 2. Digital, Vocal, and Tangible Art
- 3. Moving and Still Arts
- 4. Fabrics and Fashion

ABOUT MANIPAL UNIVERSITY JAIPUR

Manipal University Jaipur was launched in 2011 on an invitation from the Government of Rajasthan as a self-financed State University. MUJ has redefined academic excellence in the region with the Manipal way of learning, one that inspires students of all disciplines to learn and innovate through hands-on practical experience.

Manipal Group in education is a name to reckon with in India and the world. The seeds of its magnificent growth were sown in 1953 by Padma Shree, Late Dr. TMA Pai. Manipal University Jaipur is the youngest member of the Manipal Education family. Due to its broad spectrum of academic and research programs covering almost all disciplines like Architecture, Engineering, Sciences, Management, Law, Arts, Journalism, imposing high-quality infrastructure, excellent faculty committed to achieving excellence. Manipal University Jaipur has already established itself as a premier university.

Jaipur, one of India's fastest-growing cities, has an increasing demand for quality higher education in the region. Following an allotment of 122 acres of land at Dehmi Kalan village near Jaipur, the university's permanent campus has come up quickly. It is by far one of the best campuses in the region.

ABOUT THE FACULTY OF DESIGN

The design industry is one of the fastest growing industries of the 21st Century. Hence the demand for skilled designers has increased in the last few decades. Manipal University Jaipur aims to nurture it as one of its core strengths, with the mission to become the most preferred global destination in design education and research for students, researchers, faculty, collaborators, promoters, investors, and developers. The architecture school was set up in 2012, Faculty of Design (FOD) was established in 2014 to cater to escalating demands. Over time, the FOD has grown into two schools, namely, the School of Architecture & Design and the School of Design & Art, with many departments.

In line with Manipal Group's legacy of providing quality education to its students, the Faculty of Design is backed by excellent infrastructure (which includes well-equipped laboratories and workshops and a dedicated FOD library. Over time, FOD has established institutional partnerships, recognition from professional societies, and achieved a high ranking from national accreditation bodies. At present Faculty of Design is offering undergraduate and postgraduate programs and Ph.D., which include B Arch, M Arch (Landscape), B Des & M Des (Interior Design), B Des (Fashion Design), BFA & MFA (Applied Art). In the future, it will offer more diverse programs and pathways based on the strategic direction and market needs.

ACKNOWLEDGMENTS

We convey our gratitude to our panel of reviewers, editorial team, and mentors, who extended their guidance and time, which have helped us to organize this event. We would also like to thank our entire leadership team for their motivation and administrative support for this conference. Finally, this event is an outcome of the combined efforts of all the faculty members, supporting staff, and students, who have worked for this event for the last several months. We acknowledge their contributions to making this event possible. We hope to continue this initiative in the future to facilitate peer learning in the fraternity of creative professionals.

Regards
The Organizing Team
ICCF 2022

MESSAGE FROM THE DEAN

It is my great honor and pleasure to welcome you to the International Conference on creative futures during May 20-21, 2022, at the faculty of design at Manipal University Jaipur.

A report by World Intellectual Property Organization (WIPO) 2015 confirms that the creative economy sectors of publishing, broadcasting, advertising, performing arts, crafts, and others considerably contribute to national GDP and wealth creation in formal and informal economies. Furthermore, reports UNESCO, the industries contribute around "3 percent of the global GDP." The importance of creative industries is highlighted because the 74th United Nations General Assembly has announced 2021 as the International Year of Creative Economy for Sustainable Development.

However, it is also ironic that due to many economic recessions at the global and local level, climate change, and more recently, the pandemic, have threatened many of these industries and the communities and individuals associated with them. The International Conference of Creative Futures (ICCF'22) is focused on Applied Art & Design, Built Environment; Fashion & Textiles, Spatial Design & Interior Environments. We hope to be able to imagine just, resilient, safe, inclusive, and sustainable futures.

We hope you'll join us in this exciting endeavor so we can reshape and create a better future for the next generation of students, faculty, and researchers in academia and industry.

Dr. Madhura YadavDean
Faculty of Design

MESSAGE FROM THE DIRECTOR

This first conference organized by the faculty of design of Manipal University Jaipur is based on broad themes of planning for Creative Futures that are resilient, sustainable, just inclusive, ethical, and safe across various disciplines. This conference aims to provide an opportunity for academicians, practitioners, consultants, scholars, researchers, and policymakers with different backgrounds and expertise to present and share their work experiences.

In this book of abstracts, an attempt has been made by the faculty of design to put together design and research activities carried out by students, teachers, researchers, designers, artists, and the community at large deliberating upon new ideas, innovations, trends & advances looking into the future developments. This book should then serve as a guide to future young researchers and designers, who can contact the authors for the entire paper. We look forward to conducting such activities in the future and making this one a grand success.

Dr. J.P. Sampath KumarDirector
School of Design and Art

CHAPTER ONE

POTTERY IN INTERIOR DESIGNING: ART AND CRAFT CREATIVITY OF KUMHAR COMMUNITY IN INDIA

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Abstract

Pottery is the art of crafting clay into various shapes and forms, visually communicating the human imagination and having an emotional connection. It includes some skills, creativity, and procedures from kneading the clay or soil to shaping the clay into various products, ultimately firing it to have visual forms. Clay craft is one of the most ancient practices of human civilization associated with the Kumhar or Prajapati community in India. The demand for pottery products is gaining momentum as materials for interior design in modern India. As a mix of cultural creativity and technology usage, contemporary pottery has become the objet d'art for homes, restaurants, malls, universities, etc. This chapter discusses the significance of pottery's art and craft creativity in interior design in the context of India.

Keywords: pottery; craft; interior design; cultural creativity; Kumhar

I. Introduction

Pottery is the art of crafting clay into many shapes and forms which visually communicates the human creative imagination in materialistic forms. Clay craft means making an object with clay, predominantly by hand, where functional and aesthetic considerations are equally important. Clay crafting is associated with the Kumhar community in India as they have pottery

skills, which have been transferred to them from their ancestors. The current demands of pottery products have made them more creative with the help of technology, making them objects for interior design. For an appealing and elegant look, pottery items have been used for decorating purposes in homes, restaurants, academic institutions, museums, retail stores, and organizations. As they are eco-friendly and creative, pottery products are being used as luxurious materials and have become the prime choice for interior designers. Clay-made items may make people's lives more comfortable, joyful, entertaining, efficient, and organized without jeopardizing their health and safety, as imaginative home designs. Humans are inspired by creative interior design, which changes their lifestyle and allows them to appreciate the beauty of their surroundings and everyday objects. People's daily behavior, micro-cum-macroscale interpersonal relationships, multidimensional perceptions, emotional sentiments, and finally, bodily and mental wellness may all be positively influenced by a well-choreographed interior environment (Suh, 2020). The potters in India have much more scope in the future. They can play an essential role in interior design with the help of their clay craft creativity. This chapter discusses the significance of pottery's art and craft creativity in interior design in the context of India.

II. Pottery as Interior Design: Historical Background

It cannot be said that pottery products have only recently been used for interior design. Evidence shows that even ancient people used glazed clay craft materials to look attractive and luxurious. The Pannonian Plain's Bronze Age was a vibrant time during which several different groups of cultures were discovered. Such ancient peoples had different burial customs, settlement types, and pottery decorating traditions, represented in complicated national chronologies. The range and number of painted clay containers increased throughout the Bronze Age (2500-800 BC), including various types of Nagyrév pottery bowls, jugs, cups, pedestalled jars, hanging vessels, and storage containers. Another type of design is a sequence of incised motifs set in bands or vertical fields around the pot or covering the whole outside of the vessel (Fig. 1). Triangular symbols, textures, dot marks, vertical and horizontal outlines, and L-shaped and steplike patterns are among the most common geometric motifs. These designs may be found on various surfaces, including decorations on the walls of houses, carved bone, and boar tusk, and they were most likely also used on clothing and as body adornment. The vast majority of ornamented fine ware bowls (Fig. 2) throughout the Bronze Age of the Carpathian Basin are found

to be of exceptionally good quality and technically healthily manufactured, reflecting an investment of both material and skill above that of ordinary domestic goods (Sofaer, 2017).



Figure 1: Nagyrév vessel (Matrica Museum, Százhalombatta). Photo Source: Sofaer, J. (2017). Pots and Stories: Creativity and Design in the Bronze Age of the Pannonian Plain. J. S. Lise Bender Jørgensen, Creativity in the Bronze Age (Understanding Innovation in Pottery, Textile, and Metalwork Production) (pp. 221-234). Cambridge: Cambridge University Press. doi: https://doi.org/10.1017/9781108344357.026

Ancient kings from various locations used glazed pottery wares. Some notable Islamic princes asked potters from the Middle East to travel to India in the 12th century AD, ushering in the era of glazed pottery. Gujarat offers examples of beautiful glazed clay artifacts or pottery with Persian designs and Indian concepts dating back to the Sultanate period. Glassy-looking pottery is only produced in a few locations in the country, depending on demand. Later, in the 13th century, glazed ceramic wares became quite famous when Turkic princes invited pottery people from Persia, Central Asia, and other areas of the globe to settle in what is now the northern section of India. These glazed pottery goods were seen as a sign of economic affluence (Indian Pottery, 2021).

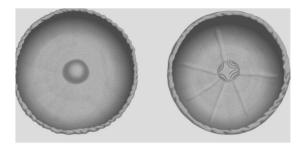


Figure 2: Decorated turban clay-made rim bowls from Vukovar Lijeva Bara, Croatia. Sun motif (left); Wheel motif (right) of the Bronze age. Photo Source: Sofaer, J. (2017). Pots and Stories: Creativity and Design in the Bronze Age of the Pannonian Plain. J. S. Lise Bender Jørgensen, Creativity in the Bronze Age (Understanding Innovation in Pottery, Textile, and Metalwork Production) (pp. 221-234). Cambridge: Cambridge University Press. doi: https://doi.org/10.1017/9781108344357.026

Terracotta and ceramic designs, as well as natural fiber products, are used practically all over India. In India, pottery has had various forms, from the renowned Longpi pottery of Manipur to the black clay pottery of Nizamabad. Longpi has a dark appearance and gets its color from the powder of the stone called black serpentinite, while black clay pottery gets its color when the clay-made products are carbonized by fire along with ingredients like the bark of mango trees and bamboo leaves. This also spreads to interior design and architecture, as seen in the clay dwellings of the Kutch area of Gujarat. Walls built of bamboo chips and clay plastered with *Lipan* (a clay and dung combination) were embellished with an intricate bas-relief created with the help of the thumb and index finger (Desai, 2017).

III. Interior Design

The term interior design has sometimes been considered as interchangeable with the term interior architecture. Although there is some overlap between the notions of interior design and interior architecture, both phrases have distinct meanings in the field of interiors, making them somewhat contradictory. Interior designers and architects deal with most structural renovations. Technically, the interior designer or architect develops the whole construction and structure inside the houses and is involved in the design process. They collaborate with builders, contractors, and technicians to make rebuilding or renovating an existing facility go as smoothly as

possible. Interior design, on the other hand, is more concerned with aesthetics. Interior design is an architectural and space planning profession that focuses on creating expressive and visually satisfactory designs for homes and business offices inside buildings (MasterClass, 2020).

Interior space design is an essential aspect of the architecture profession. Following the advent of interior decorating as a 'new' profession in the latter half of the 19th century, the recognition of interior design and architecture was predominantly seen in the 20th century. This split has created a source of friction that stems from conceptual disparities in the sectors' pedagogies and exacerbated by a conflict of interest between the interior design and architecture professions. Architects are taught to think in three dimensions: purity, geometry, philosophy, and idea maintenance. On the other hand, interior designers (who are lumped together with decorators to distinguish themselves from interior architects) are often concerned with people's comfort and the quality of two-dimensional surfaces, according to the findings of the study conducted by Meltem Gürel and Joy K. Potthoff (2006). The concepts of interior design (e.g., selecting furniture design and layout, interior ingredients and textures, attractive ornamental elements, color theory) were not well addressed by interior architecture (Potthoff, 2006).



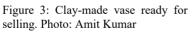




Figure 4: Clay-made vase used inside the home. Photo: Amit Kumar

Diverse terminology, such as interior decorator, interior designer, and interior architect, also contributes to the uncertainty in defining the scope, possibilities and duties of interior design. As one might expect, an interior decorator's work focuses on managing the attractive look of rooms with artwork, fixtures, and lighting; an interior designer's work entails the

selection and planning of the fixtures, finishes, and renovation of the available space; and an interior architect's work entails the allocation of innovative spaces with sturdier architectural interdependence, taking into account the architectural factors and site. So, interior design is a creative profession that aims to create settings that satisfy people's requirements and enrich their lives. The interior designers develop a strategy for innovative design, take care of ergonomics and build areas where people live, work, study, and play, and participate in various activities satisfactorily. Because of the multidimensional approach of interior designers, the places where various activities are performed show the diverse range and scope of people associated with it for a better environment for businesses and homes (Suh, 2020). The pictures in figures 3, 4, 5, and 6 give a better visualization of the pottery used for interior design, decoration, and architecture in today's India.



Figure 5: Clay art made on the wall of the restaurant in Ranchi, Jharkhand Photo: Amit Kumar

Figure 6: Clay art made on the wall of the house in Ranchi, Jharkhand Photo: Amit Kumar

IV. Art and Craft Creativity in Interior Design

Arts and crafts are the results of creativity flowing into the human mind. In the guise of culture, creativity may be found everywhere. There is creativity when there are problems and ideas. In simple terms, culture is the 'background' of invention, i.e., the product as the outcome (Yong Shao, 2019). Examples of creativity are playing, thinking, making, finding, dreaming, and exploring the natural environment. It is the result of the human mind and includes a variety of creative processes. It is more focused on the process of creating concepts and ideas for goods. 'Both originality and utility or appropriateness are required for creativity' (Jaeger, 2012).

Terracotta and clay are popular for emerging businesses and designers because of their originality, appropriateness, versatility, and durability. The Indian Kumhar believe their traditional crafts have survived and are earning appropriate attention because of innovative design inputs. Crafts may be revitalized and brought back into the contemporary space with the proper sustainable design. Brahmadeo Ram Pandit, a Mumbai-based potter, won the Shilp Guru award in India and was also awarded the Padma Shri for his contributions in the field of clay craft creativity (Desai, 2017). Figure 7 depicts one of his unique ceramic designs. Clay craft is a kind of Kumhar creativity, and this natural association of the Kumhar people highlights their distinctiveness. They mold clay into communicative arrangements and record the clay's plasticity. Clay is the same for the Kumhar and us, but they molded it into various forms that are presented, glazed, and ornamented, and have a purpose in everyday life. When you look at any Kumhar idol or object, it appears to be talking, transmitting some message; this is what creativity accomplishes. Creativity helps to address the physiological and psychological needs of people's environment through interior design. An overview of outlines and guidelines for interior design demands numerous 'Interior components, materials, and furniture' while considering economic and environmental concerns. The importance of ideas, methods, theory, practice, and development in comprehending interiors is highlighted by the fusion of such concepts (Vouchilas, 2011). Interior designers need to be creative, and one of the major purposes of higher education is to foster creative problem-solving abilities; yet, design is a complicated and enigmatic activity that includes 'many intangible aspects, such as intuition, imagination, and originality.' Thus, in deducing the creative design process from observations of the behavior of designers who created artifacts such as sketches, interviews, etc., the study of designers' verbal procedures is complex and only partial. So far, the complex link between interior design and creativity has only been studied in bits and pieces. We discuss internal design creativity in terms of product (qualities of creative interior design), process (strategies for creative output), and person from the standpoint of the invention as a complex phenomenon (prerequisites for creative interior designers) (Suh, 2020).



Figure 7: Ceramic pottery. Photo Courtesy: Brahmadeo Ram Pandit

We examine the unique relationship between creativity and designing by presenting a synthesizing framework for a domain-specific understanding of creativity in interior design rather than dealing with creativity in general. Aesthetics is one of the significant objectives of an interior designer so that the living space or working space can be full of energy and give positive psychological satisfaction. Clay craft materials have a tendency to help make people calm, satisfied, and responsible for environmental sustainability. The study of people's reactions to ecological items, mainly manufactured or artificial artifacts like clay craftwork or other artwork, is known as aesthetic psychology. Predilections, fondness, attractiveness, and different sorts of evaluative assessments, as well as emotional responses, are all examples of aesthetic experiences (see Fig. 8). As per the Indian belief system, using pottery products can calm the senses of humans, e.g., drinking water in clay made pots, the taste of cooked food in an earthen pot, etc. (Sarma, 2021).

Each aesthetic encounter is the consequence of a complex interplay between the features of the object of attention, the person interacting with it, and the environment in which the incident occurs. Because the things that individuals produce are frequently viewed aesthetically by others, aesthetics and creativity are inextricably linked (P.L.Tinio, 2020). By considering the project type, the socio-cultural environment, and the customer demands, creative interior designers try to produce innovative aesthetics to look at the given place. As a result, aesthetics plays a vital role in interior design, occupying two primary realms: visual and spatial, and involving the pictorial facets of a space, such as color, the surface finishing of space, and its shape; or the amplification of the three-dimensional experience, such as longitudinal quality, organization, or space sequence. In creative interior design, aesthetics represents the space's intrinsic quality that incorporates a more humane and sensual experience that appeals to the field of vision, sound, aroma, grasp, and taste.



Figure 8: Clay-made goods kept at a selling store. Photo: Amit Kumar

Clay is a timeless and dateless substance, and things made of it may survive for generations. Clay-made pots not only provide information about the history of a location; they also give a vivid image of the people who lived there and their way of life and cultural practices. They encapsulate the traditions, techniques, and cultures of the past time in which they were created. They are nothing less than a snapshot from a historical period. Clay crafts and artifacts from archaeological sites, such as bull carts, pots, stamps, and other pottery items, depict the history and culture of a bygone era, whereas contemporary artifacts, such as a man riding a bicycle, modern art sculptures, and fashionable jewellery depict contemporary styles and cultures. Clay was not just a creative material for beautiful ornaments, cutlery, and other items; it was also an essential aspect of ancient construction processes. The terracotta sculptural pattern tiles engraved on the facade of clay and terracotta temples in West Bengal still hold strong (Gupta, 2008).

Expertise, knowledge, skill sets, techniques, and so on are all prerequisites for creativity from the standpoint of a potter. Flexibility, adaptability, openmindedness and intense concentration are qualities for ideas that are transformed into visual forms with the assistance of clay idols and objects. Some people, such as members of the Kumhar group, are born with creativity, but it may also be developed to some extent. Education and occupational training can be used to earn the prerequisites. Furthermore, cognition and a thoughtful style are flexible and may be learned with practice. An interior designer must be familiar with current design trends, technological advancement, systems, structure, human behaviour, legislation, and visual insight. The designer can quickly extract relevant information

and resources when his experience and knowledge create a repository. The 'adaptable mind' is similar to the 'flexible mind,' which is the attitude of adapting to new, varied, and changing conditions. Open-mindedness is a person's attitude toward design that is free of prejudice or biases. Without flexibility, one is more inclined to stick to one's original concept, existing knowledge, or previous experience rather than exploring new ideas or ways. Adaptability to new ideas, images, and resources appropriate for the new project and current knowledge are required to be more flexible in the creative space. A great concept for one co-working space may not be successful for another; the notion may be too well-known, eliciting no more originality. The significant demands of creative designs are not just knowledge and competence but also acceptance, flexibility, open-mindedness, and adaptability to approach the issue from a new and innovative viewpoint (Suh, 2020).

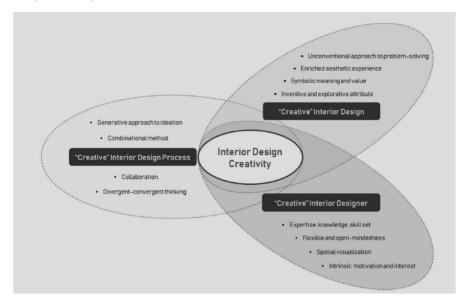


Figure 7: Diagram used to show the domain of interior design creativity. Picture courtesy: Suh, J. Y. (2020). Interior Design. In M. R. Steven Pritzker, Encyclopedia of Creativity (Third Edition) (pp. 685-694). Cambridge, USA: Academic Press. doi:10.1016/B978-0-12-809324-5.23600-6

V. Conclusion

Traditional clay craft practices are being phased out because of machine-made utensils with the changing times and fashion choices. Skilled pottery artisans are being displaced by machines, leaving them unemployed. Clay craft goods can be better options for objects d'art with an environmentally sustainable and creative touch in newer generations. Still, the skilled artisans in pottery are losing interest in working as potters, and as a result, they are shifting to other jobs and relocating to cities in search of work. The level of creativity in newer generations belonging to the Kumhar community is slowly decreasing as they move away from their cultural heritage. Machine-made crafts are replacing the magnificent art items due to the changing style of décor and interiors. Artisans must keep up with the challenges of the changing times and adapt to modern techniques and artworks to sustain the craft.

However, the artworks depicting relatable life experiences and feelings will never become old, old-fashioned, or uninteresting. Craft practices disappear into the black hole of forgotten traditional history skills when demand for the craft declines. Craftsmanship practices like this should be valued, encouraged, and maintained.

References

- Desai, L. (2017, September 19). Craftsmanship special: pottering about with clay. Retrieved from Architectural Digest India: https://www.architecturaldigest.in/content/craftsmanship-and-contemporarydesign-special-pottery-clay/
- 2. Gupta, C. S. (2008, January). Clay Traditional Material for Making Handicrafts. Indian Journal of Traditional Knowledge, 7(1), 116-124.
- 3. Indian Pottery. (2021). Retrieved December 23, 2021, from The Iloveindia: http://lifestyle.iloveindia.com/lounge/indian-pottery-2141.html
- Jaeger, M. R. (2012). The standard definition of creativity. CREATIVITY RESEARCH JOURNAL, 92-96.
- MasterClass. (2020, November 08). Interior Architecture vs. Interior Design: Explore the Differences. Retrieved January 15, 2022, from MasterClass: https://www.masterclass.com/articles/interior-architecture-vs-interior-design#how-to-become-an-interior-architect
- P.L. Tinio, P. (2020). Aesthetics. In S. P. Runco, Encyclopedia of Creativity (3 ed., Vol. 1, pp. 18-22). Cambridge, USA: Academic Press. doi:https://doi.org/10.1016/B978-0-12-809324-5.23690-0
- 7. Potthoff, M. Ö. (2006). Interior Design in Architectural Education. International Journal of Art & Design Education, 25(2), 217-230.

- doi:10.1111/j.1476-8070.2006.00486.x
- 8. Sarma, A. K. (2021). Significance of Kumhar Community and their Traditional Practices. In B. S. Amit Kishore Sinha (Ed.), Ancient Indian Wisdom For Sustainable Wellbeing (pp. 45-48). Varanasi: Bharti Prakashan.
- Sofaer, J. (2017). Pots and Stories: Creativity and Design in the Bronze Age
 of the Pannonian Plain. J. S. Lise Bender Jørgensen, Creativity in the Bronze
 Age (Understanding Innovation in Pottery, Textile, and Metalwork
 Production) (pp. 221-234). Cambridge: Cambridge University Press.
 doi:https://doi.org/10.1017/9781108344357.026
- Suh, J. Y. (2020). Interior Design. In M. R. Steven Pritzker, Encyclopedia of Creativity (Third Edition) (pp. 685-694). Cambridge, USA: Academic Press. doi:10.1016/B978-0-12-809324-5.23600-6
- 11. Vouchilas, G. (2011). Interior Design: A Critical Introduction (Book Review). Family & Consumer Sciences Research Journal, 40(01), 96-97. doi:10.1111/j.1552-3934.2011.02093.x
- 12. Yong Shao, C. Z. (2019). How Does Culture Shape Creativity? A Mini-Review. Frontiers in Psychology, 01-08.

CHAPTER TWO

POSTURE ANALYSIS AND IDENTIFICATION OF MUSCULO-SKELETAL DISORDERS IN DELIVERYMEN AND USERS WHILE TRANSPORTING LPG GAS CYLINDERS

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Abstract

The study is concerned with the ergonomic evaluation and prevalence of musculo-skeletal disorders (MSDs) in the carrying and transporting of LPG (liquid petroleum gas) cylinders by deliverymen and users in homes. Using surveys and interviews, data were collected to determine the work-related musculo-skeletal disorders (WMSDs) experienced by these users. The working posture of the people transporting gas cylinders was evaluated using the Ovako working analysis system's (OWAS) postural analysis tool. It was found that only two out of 10 postures did not require correction (category 1), while one required immediate correction (category 4) according to the OWAS. Studies were also conducted on the present use of mechanical aids like trolleys to prevent WMSDs in the target group. The use of trolleys was more prevalent in users in homes than delivery men, although the variety of MSDs reported was high in users in homes.

Keywords: ergonomics, MSDs, OWAS, cylinders, posture

I. Introduction

Background of the current research

Gas cylinders are one of the building blocks of a kitchen in order to cook delicious food. Looking at a highly populated country, many people, mainly from the rural or town areas, still rely on gas cylinders even though pipelines have started taking over. A section of the Indian population lives in 3-4 floor apartments, due to which there is either an absence of an elevator or the elevator is out of service given the electricity conditions. Here, the major task involves transporting the gas cylinders from the truck to the house. It is mostly done by hand, or cheap solutions are taken up.

A delivery man delivers a full gas cylinder, which weighs 29.8 kg, and takes away an empty cylinder weighing 14.2 kg for refilling and reuse. The delivery man will have to handle the delivery process physically, doing actions like lifting the full cylinder from the transport vehicle and then distributing it to the customer; then bringing back the empty cylinder to the transport vehicle. In addition, the delivery man has to rely on the stairs to manually transfer the LPG cylinder from the ground to the required upper level in the case of apartments with no elevators.

Delivery men are exposed to various ergonomic risk factors like improper or awkward postures, heavy loads, excessive force, highly repetitive tasks, and improper rest periods between tasks due to the above-mentioned LPG cylinder delivery process, which may lead to MSDs, such as back and shoulder injuries, wrist injuries, etc. As reported by the occupational safety and health statistics, workers suffer from back pain and experience shoulder injury caused by overexertion, bodily reaction, and contact with objects or equipment. Since incorrect body posture when doing such tasks is a major contributor to MSDs, we focus on analysing different postures in this study using an ergonomic assessment method.

II. Literature review

We did a literature review to understand the problems associated with the transportation of gas cylinders and problems associated with existing solutions. We took a closer look at the safety, efficiency, and attractiveness of the design of the appropriate items. Considering a huge fuel-consuming country like India, LPG plays a vital role in daily life. Many 3-4 floor apartments were built to accommodate the growing population in small towns, which resulted in many smaller apartments having an absence of