

Development of Outerwear Handicraft Industry Technique in the Application of Simalungun Pinar Hurungguan Ornaments

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ABSTRACT

The engineering development of the outer fashion craft industry in the application of the Pinar Hurungguan Simalungun ornament is a research on the creativity of students in Medan-North Sumatra. The development of creativity applies an explosive qualitative method, which is to produce new designs that have never been designed by someone, through a critical thinking process to create new inspiration. The stages of the activities carried out in creating women's outerwear crafts are as follows: 1) theoretical presentations about fashion craft art; 2) craft concept maps; 3) drawing sketches; 4) design motifs and clothing using corel draw; 5) the process of making crafts using cloth; and 5) outerwear craft presentation. The goal of developing the outerwear craft industry is to increase the knowledge and skills of the younger generation in the creative industries. So that the preservation of regional culture is maintained optimally and improves the community's economy.

Keywords- Development, Outer, Ornaments, Pinar Hurungguan, Simalungun.

INTRODUCTION

1] Development is defined as the systematic application of scientific knowledge to be achieved in the production of materials, methods or systems, and the design of various forms of prototypes.

2] Development is an activity to broaden and deepen one's knowledge. So that in essence development is a formal and non-formal education activity that is carried out systematically, consciously, directed and responsible in introducing, growing, guiding, developing a personality base that is aligned, balanced, whole, skilled according to talents, knowledge, desires and abilities. as a person to improve, develop personality in order to achieve optimal and independent human qualities and abilities.

3] Engineering is an activity that uses knowledge entirely with the aim of being able to apply scientific knowledge and ensuring that the resulting product can meet agreed market needs and manufacture new products with optimal methods.

4] Crafts are the result of cultural constructions that are always related to the life of the social environment of society, especially Indonesia. Crafts are often connected with traditional culture, so that crafts today can be said to be diverse. Thus the status of craft has penetrated into the aesthetic and conceptual aspects. Previously, the aesthetic applied to the craft was the result of the cultural representation of the local community. So the higher the culture of society, the higher the creation of crafts. For example, kris craft, batik craft, wayang, and other crafts that are not only beautiful but also have beautiful philosophical values. Viewed from another point of view, craft is also the result of the culture of the people who are closely

related to the pattern of daily life. Such as household linen crafts, home interior elements, kitchen utensils, furniture or other objects that are close to human activities which are craft products. Thus, crafts are created through the skills of human hands using traditional and manual materials, with innovative and unique products.

5] At the beginning, clothing functions to protect the body from weather and air temperature or body warmers and protect the body from animal bites. Along with the development of the era, clothing functions as a person's identity and adds aesthetic value to one's appearance. Outer is clothing as an outer of basic casual clothing so that a person's appearance becomes fashionable. This outer garment still provides comfort, stylish and semi-formal for outer use. Outer forms vary in shape, such as cardigans, blazers, vests, and so on. The characteristic feature of the outer model is that it is usually open in front and can be added to accessories with nuts as a variation of outer beauty.

The development of outerwear craft industry engineering in the application of the Simalungun Pinar Hurungguan ornament is a creative activity carried out by students of the fashion education study program at Medan State University to increase creativity, knowledge, and skills in the craft industry. Thus the craft products created by students become innovative, creative, have functional values for human life, and have unique aesthetic values. Through this creative activity, students are expected to be able to meet the needs of the community in the creative fashion industry with artistic and ethnic values. Thanks to the knowledge and skills acquired, students are expected to be able to open new jobs in the home craft industry or boutique business in the future. So that the preservation of regional cultural products which are currently almost lost due to the development of modern times today can continue to develop and be well preserved with handicrafts that are proud of regional culture.

METHODOLOGY

In the research on the Development of Outer Clothing Craft Industry Engineering in the Application of Simalungun Pinar Hurungguan Ornaments using an explosive qualitative method. This method produces new designs that have never been created by someone, but are obtained through critical thinking in achieving new inspiration. This method produces outer clothing crafts by applying Pinar hurungguan ornaments with the following work process:

1. Presentation of the theory of textile craft and fashion.

Textile and fashion craft material discusses the form of textile craft in surface design and structural design, as well as the delivery of material regarding the form of women's outerwear specifically to students through face-to-face learning.

2. Product concept map.

A concept map is made starting from the background of creation, the purpose and benefits of creation, the home industry organizational structure, the functions and duties of each organizational officer, ideas, materials, product manufacturing processes, marketing, to the conclusion of the home industry product concept. This is the creation of a product concept that is designed in a systematic, concise manner, and can be understood by other participants using SmartArt media or flowcharts.

3. Draw a sketch.

Drawing sketches are done manually, namely with the creativity and skills of students' hands in painting shapes using drawing paper and 2B pencil media. The drawing sketches are designed based on the development of the ideas of Indonesian culture starting from the motif design, outer clothing design, and the

application of motifs to outer clothing.

4. Motif design and fashion design.

After making sketches of motifs and sketches of outer clothing manually. The next step is to sketch the image by scanning it and storing it in E data on the laptop media. Then the image sketch is opened or displayed on the Corel Draw screen, so that the sketch image is perfected by redesigning the motif and outer clothing by applying the colors the creator wants. So that the motif design and clothing design are designed using corel draw media, so that the design is more perfect and innovative.

5. The process of making outerwear.

The manufacture of outer clothing uses cotton and semi-wool materials with size M. The making of the Pinar hurunggu motif uses embroidery thread with hand embroidery techniques. Making motifs on the surface of the outerwear pattern using flat stitches and stitches, bandage stitches, and stick stitches. So that the process of applying motifs and making women's outerwear is made manually with the creativity and skill of the creator's hands.

6. Product presentation.

Product presentations are presented in a systematic, brief and clear manner about the contents of the product presentation, starting from the ideas of creation, materials and equipment used in the product manufacturing process, explaining the stages of making outerwear visually, and explaining the product marketing process using various media. today's society. Then at the end of the product presentation, a creator can explain the conclusion briefly and is accompanied by suggestions from the creator. Thus the process of presenting the fashion craft industry which was carried out directly in front of other participants was brief and clear.

Furthermore, the process of making the motif design for the development of the Simalungun Pinar hurunggu Ornament in corel draw, is as follows:

1) Drawing paper

Drawing paper is made with a size of 4 X 4 cm by clicking new; files; appears create a new document; fill in the name box with the motif design theme; width 4cm; height 4 cm, resolution 100 dpi; and press ok. Then display a sketch of the letter Pinar Ornament on the drawing paper screen and then redesign it creatively using the tools on the left side, and color it according to the creator's own concept.

2) Outline the motif

Making the outline of the Pinar Hurungguan motif in several stages, namely, clicking the pen tool; click outline width 0.2 mm; then the pen tool outlines the entire outline of the sketch outline of the motif; click the shape tool to form a curved line on the outline of the desired motif; then click the default black color palette with the right mouse click. This is how the outline of the motif is made in black with an outline width of 0.2 mm.

3) Motive color

Making the color of the motif is done by clicking the pick tool for the desired pattern shape; click the default palette by selecting black or red; left mouse click; then fill in the black or red colored motif according to the concept the creator wants; and finally the results of the basic motif design are stored in CDR. Thus the function of the pick tool is as a selector for certain motifs that will be colored through the default palette.

Next, making the repetition of the shape into a motif in Corel Draw goes through the stages, namely:

1) Drawing paper

Drawing paper is made measuring 8 X 8 cm by clicking new; files; appears create a new document; fill in the name box with the motif design theme; width 8 cm; height 8 cm, resolution 100 dpi; and press ok. Next, the drawing paper is ready to repeat the basic motif shape.

2) Repetition of shapes

Repetition of shapes is done by displaying the basic motif of the 4 x 4 cm Pinar hurungguan on a drawing paper screen; press Ctrl C to copy the first basic motif; press Ctrl V to produce the second basic motif, then reduce the second basic motif to 3.3 X 3.3cm; Thus the third basic motif by clicking copy and pasting the first basic motif with a basic motif measuring 4 X4 cm; The fourth basic motif is produced through a process of copying, pasting, and reducing the size of 3.3 X 3.3cm. Furthermore, the four ornamental motifs are arranged side by side by displaying a diagonal line arrangement.

3) Repetition of a checkered background.

The process of repeating the background in the form of boxes is carried out in several stages, namely; click the pen tool; click outline width 1.0 mm; choose cyan blue color in the default palette; then a cyan vertical line appears; then make the first duplicate by pressing Ctrl C; press Ctrl V; then make a horizontal line by pressing the pen tool; click outline width 1.0 mm select cyan blue color in default palette; then a cyan horizontal line appears; so next create a duplicate of the horizontal line and the vertical line of cyan blue; the lines are arranged regularly to form boxes with a distance of 0.5 cm on each line.

How to make color shadows due to overlapping horizontal lines and vertical lines, then pick the entire object line of the box with the pick tool; click merge mode; select and click multiply; thus the checkered lines form a shadow color between the overlapping vertical lines and the horizontal lines.

Then the process of making and applying motifs to the design of women's outerwear in Corel Draw is as follows:

1) Drawing paper

Drawing paper is made measuring 10 X 31 cm by clicking new; files; appears create a new document; fill in the name box with the motif design theme; width 10cm; height 31 cm, resolution 100 dpi; and press ok. Next, the drawing paper is ready to make a fashion design.

2) Outline fashion design

Making the outline of a fashion design in the following way; Fashion sketches stored in data D are displayed on the screen of corel draw drawing paper; click the pen tool to make the object help line; click the shape tool to create a curved outline following the fashion sketch; Thus the process of making the outline of a fashion design.

3) Application of motifs on clothing.

The application of motifs on clothes is done in a way; display the blue checkered motif that is in the basic motif file on the drawing paper screen by clicking Ctrl C; click Ctrl V then it appears next to the fashion design object in the form of a duplicate of a blue checkered pattern; click the pick tool for the blue

checkered motif; click objects; select powerclip; select Place inside frame; point and click the black arrow to the fashion design that looks to the front of the chest. Then the blue checkered motif is applied to the front chest design; then the application of the basic motif of the Pinar Hurungguan Ornament by clicking Ctrl C and clicking Ctrl V. A duplicate of the basic Pinar Ornament will appear next to the clothing design; then a duplicate of 1 letter Pinar Ornament is placed on the upper right chest of the front view; then press Ctrl C and Ctrl V. 2 duplicates of the letter Pinar Ornament will appear; then duplicate 2 of the letters Pinar Ornament motifs are placed at the bottom of the left side on the front view of the dress design.

Furthermore, the coloring of the skirt, sanghai collar, and coloring of the hands on the clothing is by clicking on the pick tool on both hands and the collar on the clothing; then choose black on the default palette; right mouse click to color outline shape; left mouse click to color the shape fill; then outline and fill in the shape of the collar and sleeves on the black top dress.

Then coloring the skirt design is done by clicking the pick tool for the skirt; then select the blue color on the default palette; right mouse click to color outline shape; left mouse click to color the shape fill; then outline and fill the skirt shape in blue. This is the process of coloring and the application of motifs in outerwear designs.

Furthermore, the steps for making outer clothing using fabric are as follows:

1) Fashion patterns

Before making a pattern, body measurements are first taken starting from neck circumference, shoulder length, hand length, body circumference, waist circumference and hip circumference. So that the size of the material corresponds to the size of the body type M. Patterns are made using brown paper or parchment paper, blue and red colored pencils specifically for pattern pencils, a pattern ruler, and paper scissors. The clothing pattern is drawn manually according to the size of the M type body shape.

2) Application of motifs on the fabric

The motifs applied to the surface of the fabric are a development of the Simalungun Pinar Harungguan decoration. The decoration is applied by applying flat puncture techniques, dressing punctures, and stem punctures using embroidery needles and black and red embroidery thread.

3) Overwork.

After the pattern is traced on the surface of the material and the fabric is cut according to the pattern formed. Then the overlock process is carried out on the edge of the pattern cloth using an overlock sewing machine and black sewing thread. The overlock function on the edge of the pattern cloth serves to lock the edge of the pattern cloth, so that the pattern cloth does not have lint or strands of thread on the pattern cloth are not separated from the cloth material.

4) Dress pattern sewing

After the pattern cloth is overlocked, the next step is to sew each part of the pattern so that it becomes an outer garment using a sewing machine. The process of sewing the outer dress pattern is as follows: First, stitching and joining the back dress pattern with the front dress pattern on the right side. Second, sewing or merging and the back dress pattern with the front dress pattern on the left side. Third, sewing or joining the collar pattern on the clothes. Fourth, sewing or joining the right hand pattern on the dress. Fifth, sewing or joining the left hand pattern on the dress. This is how the sewing of the clothing pattern becomes the outer garment.

5) Hem suturing

The outer garment that has been sewn using a machine sewing technique will be followed by sewing the seam seam on the overlocked edge of the fabric with the first fold measuring 1cm and the second fold measuring 3cm which then uses hand sewing. A sumpsang seam is a type of seam in a material whose edges are obras, without being folded inward. The workings of the sumpsang rim are by inserting the needle twice in one hole so that the thread is dead and does not come off easily. The way the summature seam works is almost the same as the way the ordinary seam works. Sumpsang seam sewing is usually applied to blouses, skirts, and cuffs on thick fabrics.

6) Finishing

Outer clothing has been sewn based on a concept with a clothing pattern that has been designed by the creator. Then the finishing process is carried out on the outer clothing by ironing and perfumed clothes all over the surface of the outer clothing to make it neat. Furthermore, the clothes are neatly folded or hung on clothes hangers and wrapped in plastic clothing. Thus the process of finishing outer clothing is done manually by the creator.

RESULTS AND DISCUSSION

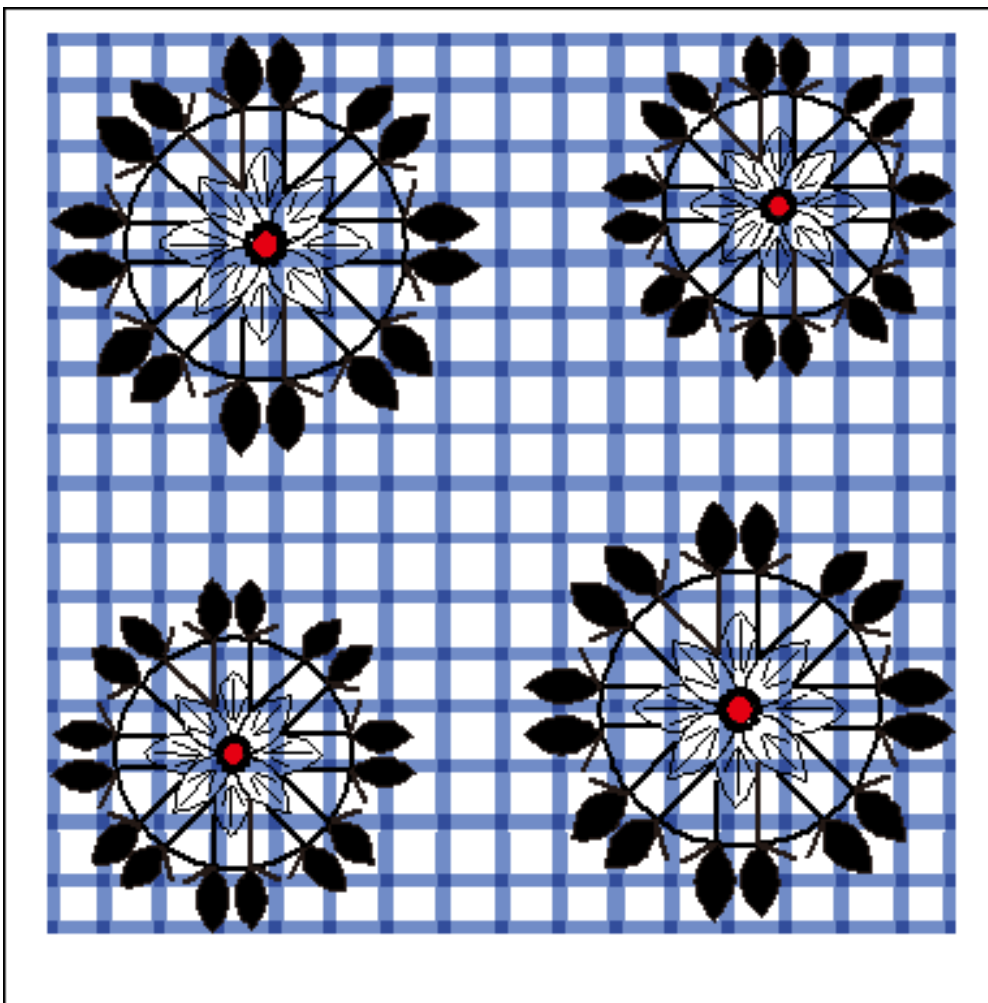


Figure 1. Pinar Hurungguan Simalungun Ornament Ornament

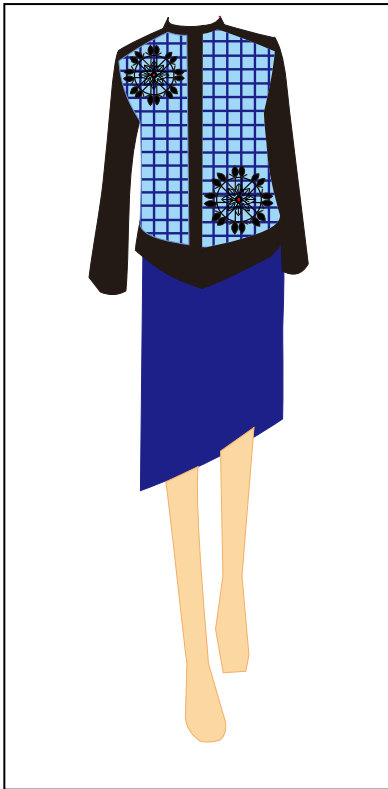


Figure 2. Outer Clothing Design



Figure 3. Outer Clothing Products

Figure 1 is a Hurungguan Pinar ornament collaborated with a checkered geometric shape. The development of the Pinar Hurungguan ornament originates from the Simalungun area of North Sumatra, Indonesia. This ornament symbolizes life in overcoming problems, so it needs to be resolved through deliberation to reach a consensus. Then the meaning of Hurungguan is a result that will be adhered to together so that there will be no conflict in the future. It can be seen that the pinar hurungguan symbolizes the circle where people face each other. This ornament was creatively designed using corel draw media with a size of 4X4 cm. So the Pinar Hurungguan ornament is an idea that was creatively developed and designed through the application of black to the Hurungguan Pinar ornament and blue to the blue checkered ornament.

Figure 2 is an outer clothing design that applies Pinar Hurungguan ornaments to the front of the clothing. This outer garment is designed using corel draw media by applying three colors namely black, blue and red and the design measures 10 x 31 cm. Making outerwear designs is very effective and efficient in today's technological developments with fast, precise and maximum results for creators or art creators. The fashion design applies elements of art and design principles. So as to produce outer clothing designs that are creative, systemic, and have ethnic cultural artistic value.

Figure 3 is the outer garment craft made manually with the creativity and skill of the creator's hands in processing cloth material into clothing that has artistic value, has function, and has ethnic aesthetic value for consumers. The outer clothing craft applies the Pinar Hurungguan decoration with hand embroidery techniques, namely flat stitches, bandage stitches, and stick stitches. A flat skewer is applied to the leaf stylization and forms a red circle. Balut stitches are applied to geometric shapes of circles, triangles, and diagonal lines. Then the stem puncture is applied to the black flower veins. The Pinar Hurungguan decoration is applied to the surface of the blue semi wool fabric with a checkered geometric pattern. So there was a collaboration between the shape of the checkered lines and the Pinar Hurungguan decoration in a piece of blue semi-wool cloth which was designed to be a women's outerwear. The source of the idea for outerwear comes from the Simalungun ethnic cultural art which symbolizes human life, which means deliberation for consensus in overcoming problems in order to achieve a final result that is adhered to together so that conflicts will not occur in the future. Thus, the craft of the women's outerwear has a functional value for human life and has an ethnic, unique, and artistic aesthetic value that is good for the people of Indonesia and abroad.

Visual Aesthetic Value Approach

in outerwear applying elements of art and design principles in creating women's fashion crafts. So that the outer clothing craft produces women's clothing that has functional value for humans and has ethnic artistic value. Then the design principles contained in outer clothing are, as follows:

The principle of balance that is applied to women's outerwear can be seen from the first placement of the Pinar Hurungguan ornament on the upper right chest. Then place the second ornament on the front of the lower left side. The three forms of checkered lines are placed in front on both the right and left sides in a balanced manner. The four placements of the black fabric also look balanced in front of the right and left sides, namely the hands, the pattern of the neck circumference, hip circumference, the black cloth in the middle line perpendicular to where the inner worm is placed. So it can be concluded that the placement of the decoration, the placement of the pattern design on the cloth, and the placement of the black cloth properly can produce the principle of balance in the craft of the women's outerwear in the picture above.

The principle of rhythm is found in the craft of women's outerwear. This can be seen from the repetition of the form of ornaments and the repetition of color types. Repetition of leaf stylization, repetition of stem stylization, repetition of twig stylization, repetition of checkered line shapes, and repetition of circle shapes. Furthermore, various types of stylized forms are packaged into Pinar Hurungguan ornaments. Then apply

black repetition, blue repetition, and white repetition on the outer clothing craft. So the repetition of various stylized forms and repetition of colors is made repeatedly and systematically arranged to produce an interesting rhythm in the new craft, namely the outer clothing craft.

The principle of unity is applied to the craft of outer clothing, which can be seen from the types of stylization in the Pinar Hurungguan ornament, such as the stylized form of long twigs and short twigs, large circle shapes and small circle shapes. When viewed from the color of the outer clothing craft has different color variations, such as red, black, white, and blue. The variety of colors, stylized shapes, sizes, spacing, and shape layouts can become a unified whole in a product to produce products that have aesthetic value that are unique, creative, innovative, and beneficial to human life. So it is concluded that the diversity of different types and forms remains a unified whole that produces beautiful artistic cultural values and has functional values for a pluralistic society throughout the world.

CONCLUSION

The Development of Outer Clothing Craft Industry Engineering in the Application of Pinar Hurungguan Simalungun Ornaments is a student creative activity in the midst of the Medan-Indonesian city community. The purpose of this creative activity is to increase the knowledge and skills of the community in the craft industry and to increase the productivity of women's outerwear crafts that follow the world of fashion. The methodology applied to the development of the women's outerwear craft industry is a qualitative explosive method by producing new crafts. Steps taken to create outer clothing crafts, as follows: 1) offline presentation of the theory of clothing craftsmanship; 2) create a structured product concept map using the SmartArt graphic technique; 3) make sketches of outer clothing and ornaments; 4) designing motifs and clothing designs using corel draw media; 5) the process of making Pinar Hurungguan ornaments using hand embroidery techniques and the application of ornaments on fashion designs; 6) offline presentation of the results of women's outerwear crafts.

Furthermore, the process of making Pinar Hurungguan ornament designs in corel draw, namely; 1) make drawing paper measuring 4X4 cm on the corel draw screen; 2) make the border of the ornament black with the media pen tool and shape tool; 3) Coloring the Pinar Hurungguan ornament through the default palette. After making the design of the Pinar Hurungguan ornament, then proceed with the process of making a repetition of the shape of the Pinar Hurungguan ornament, namely: 1) making 8x8 cm drawing paper; 2) repetition of basic ornaments or motifs by using Ctrl C and Ctrl V to produce duplicate 1, duplicate 2, and so on; 3) repeating the shape of the checkered lines used as a background motif.

After making the repetition of the motif shape, the next step is to make a women's outerwear design with the application of the motif on the patterned fabric surface, as follows: 1) make drawing paper measuring 10 X 31 cm on a corel draw screen; 2) outline the women's clothing design using the pen tool and shape tool; and 3) the application of Pinar Hurungguan ornaments on the surface of the fashion design using PowerClip and Place inside frame media. The last process is the process of making women's outerwear using fabric, as follows: 1) making body measurements with body size type M and continuing to make clothing patterns using pattern paper and colored pencils; 2) make Pinar Hurungguan ornaments on the surface of the cloth with a checkered pattern by manually applying flat stitches, wrapping stitches, and stick stitches; 3) the process of overlocking the pattern cloth so that the threads of the cloth do not unravel or have lint; 4) tailoring of clothing patterns using a sewing machine to become women's clothing; 5) carry out the hem process on the side of the overlocked edge of the fabric using the manual seam hem technique; and 6) the finishing process is carried out by neatly ironing the outer garment. This is the explosive method used in the process of making women's outerwear.

The creation of women's outerwear is designed by applying elements of art and design principles, namely

by applying elements of balance, elements of rhythm to repetition of forms, and applying elements of unity. Meanwhile, the elements of art applied to the craft of women's clothing can be seen from various forms of stylization by applying elements of various types of lines, planes, and colors. The diversity of shapes and colors in a work of art can create creative, innovative and unique products and have economic value that can increase people's productivity in preserving regional culture which has almost disappeared due to the times.

BIBLIOGRAPHY

1. Wanninayake Mudiyansele Semasinghe. (2020). Development, what does it really mean?. *Zeszyty Naukowe Uniwersytetu Szczecińskiego Acta Politica*49:51-59. DOI:18276/ap.2020.49-05. <https://www.researchgate.net/publication/342651996>.
2. Nishan Sakalasoorya. (2020). The Concept of Development DEFINITIONS, THEORIES AND CONTEMPORARY PERSPECTIVES. DOI:13140/RG.2.2.17378.48323. <https://www.researchgate.net/publication/340375763>. ResearchGate.
3. Fareed Hameed Al-hindawi. (2017). The Pragmatic Nature Of Manipulation. <https://www.researchgate.net/publication/321051665>. DOI:36317/0826-010-033-041.
4. Mumtaz Mokhtar. (2018). ART AND CRAFT IN THE ERA OF CREATIVE INDUSTRY IN MALAYSIA. *Jurnal seni rupa & Desain (ARS)*, Volume 21 Nomor 2. Faculty of Art & Design, Universiti Teknologi MARA, 40450 Shah Alam, Selangor.
5. Sass Brown. (2022). Cultural sustainability in fashion: reflections on craft and sustainable development models. DOI:1080/15487733.2022.2100102. *SUSTAINABILITY: SCIENCE, PRACTICE AND POLICY*, VOL. 18, NO. 1, 590–600. <https://doi.org/10.1080/15487733.2022.2100102>.
6. Rara Sugiarti. (2019). Leather Craft Industry and Tourism: A Symbiotic Relationship? (A Case Study of Magetan East Java Indonesia). *Harmonia: Journal of Arts Research and Education* 19 (2) (2019), 141-151. DOI: <http://dx.doi.org/10.15294/harmonia.v19i2.21124>. <http://journal.unnes.ac.id/nju/index.php/harmonia>. p-ISSN 2541-1683|e-ISSN 2541-2426.
7. Arina Bardhan. (2023). Role of Traditional Crafts in Sustainable Development and Building Community Resilience: Case Stories from India. *Culture Society Economy Politics*2(1):38-50. DOI:2478/csep-2022-0004. ISSN (online) 2810-2010. <https://www.facultateademanagement.ro/culture-sep/>.
8. Sirpa Kokko. (2010). Crafts and craft education as expressions of cultural heritage: Individual experiences and collective values among an international group of women university students. *International Journal of Technology and Design Education*21(4):487-503. DOI:1007/s10798-010-9128-2.
9. Mascha van Zijverden. (2016). Recrafting Craft: A Synergy of Crafts within Fashion Design Education at Art Schools in the Netherlands. DOI:13140/RG.2.1.3736.0242. Thesis for: Master Education in Arts. <https://www.researchgate.net/publication/304492652>.
10. David M Buss. (1987) . Tactics of Manipulation. *Journal of Personality and Social Psychology* 52(6):1219-29. DOI:1037/0022-3514.52.6.1219. <https://www.researchgate.net/publication/19562795>. ResearchGate.
11. Awais Khan. (2020). ENGINEERING DEFINITION. International Islamic University, Islamabad.
12. Sugiyono (2015). *Metode Penelitian Kombinasi (Mix Methods)*. Bandung: Alfabeta.
13. Esthi Nimita. (2017). The Art Creation in the Traditional Art Area. *Panggung*27(3). DOI:26742/panggung.v27i3.276.
14. Despina Tzanidaki. (2011). Exploring the Meanings of Making Traditional Arts and Crafts among Older Women in Crete, Using Interpretative Phenomenological Analysis. *British Journal of Occupational Therapy*74(8):375-382. DOI:4276/030802211X13125646370852. <https://www.researchgate.net/publication/272559569>.
15. Gyegwe, Aondover Gabriel. (2016). The Role of Art in Traditional Cultural Patterns. *Arts and Design Studies*. ISSN 2224-6061 (Paper) ISSN 2225-059X (Online) Vol.39. iiste.org.

16. Alison Fuller. (2015). Vocational Education. DOI:1016/B978-0-08-097086-8.92091-9. International Encyclopedia of the Social & Behavioral Sciences, 2nd edition, Vol 25. Oxford: Elsevier. pp. 232–238. ISBN: 9780080970868.<https://www.researchgate.net/publication/304194229>.
17. Jörg Markowitsch. (2017). Conceptions of vocational education and training: an analytical framework. DOI:2801/532605. ISBN 978-92-896-2488-6. Publications Office of the European Union <https://www.researchgate.net/publication/321184380>.
18. Setiyawami. (2019). The Role of Vocational Education on the Advancement of Human Development in Indonesia. Advances in Social Science, Education and Humanities Research, volume 443. International Conference on Science and Education and Technology. Published by Atlantis Press SARL.
19. Mehmet Eryilmaz. (2017). Entrepreneurship. DOI:4018/978-1-5225-7766-9.ch034. Encyclopedia of Information Science and Technology, Edition: 4. Publisher: IGI Global. <https://www.researchgate.net/publication/304346480>.
20. Kim Hoe Looi. (2015). International Journal of Entrepreneurship and Small Business. <https://www.researchgate.net/publication/280722549>. ResearchGate.