

East African Journal of Arts and Social **Sciences**

eajass.eanso.org Volume 7, Issue 1, 2024

Print ISSN: 2707-4277 | Online ISSN: 2707-4285

Title DOI: https://doi.org/10.37284/2707-4285



Original Article

Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected **Swahili Kanga Inscriptions**

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Article DOI: https://doi.org/10.37284/eajass.7.1.1782

Date Published: ABSTRACT

27 February 2024

Keywords:

Inscriptions, Kanga, Pithy Phrases, Proverbs, Sculpture, Visual Interpretation. The 'Kanga', a colourful printed cloth wrapper, is one of Kenya's coastal region's most well-known cultural items and has deep cultural, historic and economic significance. In their creation, the Kangas contain inscriptions on them that propagate sayings, proverbs, and pithy phrases in Kiswahili. The inscriptions are located on the lower border and are frequently surrounded and highlighted by various patterns or background colours. The Swahili inscriptions not only impart specific messages to the viewer but are also used to convey feelings, thoughts, and inspire. Despite sculptures being traditionally used as avenues for artistic expression based on many sources of inspiration, this study found no evidence to indicate that Swahili Kanga inscriptions have been used as inspirations in the creation of sculptures in Kenya. It is envisaged that it is possible to extract meaning from inscriptions and interpret the embedded meaning through a three-dimensional artistic genre such as sculpture from which viewers can draw meaning and visually subscribe to. In view of this gap, this study sought to develop the creation of indoor sculptures placed in public spaces that derived their creative inspiration from selected Swahili inscriptions printed on the Kanga. The sculptures were executed using a combination of metal and glass. The proverbs used in this study were already documented and published and the inherent meaning was therefore already transcribed. Creativity of the artist was applied to generate 'visual meaning' based on visual interpretation derived from and responsive, as much as possible, to the meaning contained in the proverb itself. However, the proverbs were purposively selected to best navigate and demonstrate the interpretation process from written to visual. Hence, this study applied an exploratory research design in exploring Swahili inscriptions on Kanga. The paper presents data on sculptural idea development and creation of indoor sculptures.

APA CITATION

Atieno, O. S., Muoki, M. & Wango, K. (2024). Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected Swahili Kanga Inscriptions. East African Journal of Arts and Social Sciences, 7(1), 74-95. https://doi.org/10.37284/eajass.7.1.1782

CHICAGO CITATION

Atieno, Onyiso Sachbear, Matthews Muoki and Kamau Wango. 2024. "Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected Swahili Kanga Inscriptions". East African Journal of Arts and Social Sciences 7 (1), 74-95. https://doi.org/10.37284/eajass.7.1.1782.

East African Journal of Arts and Social Sciences, Volume 7, Issue 1, 2024

Article DOI: https://doi.org/10.37284/eajass.7.1.1782

HARVARD CITATION

Atieno, O. S., Muoki, M. & Wango, K. (2024) "Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected Swahili Kanga Inscriptions". *East African Journal of Arts and Social Sciences*, 7(1), pp. 74-95. doi: 10.37284/eajass.7.1.1782.

IEEE CITATION

O. S., Atieno, M., Muoki & K., Wango "Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected Swahili Kanga Inscriptions". *EAJASS*, vol. 7, no. 1, pp. 74-95, Feb. 2024.

MLA CITATION

Atieno, Onyiso Sachbear, Matthews Muoki & Kamau Wango. "Creation of Indoor Sculptures Using Metal and Glass Inspired by Selected Swahili Kanga Inscriptions". *East African Journal of Arts and Social Sciences*, Vol. 7, no. 1, Feb. 2024, pp. 74-95, doi:10.37284/eajass.7.1.1782.

INTRODUCTION

Regarding artistic expression, there exists a confluence between written work such as in pithy phrases or proverbs on one hand and artistic genres on the other. It can be argued that the message contained in these inscriptions can be converted to some form of visual interpretation. According to preliminary research, some artists have been inspired by proverbs and other pithy inscriptions to communicate specific attitudes and emotions visually through painting, sculpture and illustrations. When it comes to sculptural works, space is a crucial aspect since it interacts with the work through appreciating the sculpture and the type of place it is in (Hopkins, 2003). You and Li (2020) explain that when admiring a sculpture, a viewer can gather information from the space, shape, feeling and colour through observation. It is challenging to appreciate and attain a chic appealing environment without the creation of indoor artworks.

Sculptures have also been inspired by proverbs and slogans, in which shapes, forms and objects that may or may not be related are combined or made to communicate specific emotions or attitudes to depict them visually. The beauty of the shapes formed, materials used and assemblage of pieces to convey specific ideas that aid in the communication process all contribute to the worth of sculpture (Wichaya, 2021).

Phrases and proverbs are well known for reflecting societal ideals and for including frequently used and accepted assessments of human conduct or acts in various events and situations (Ramin, 2019). The history of the Kanga demonstrates how the Kenyan Coast has been engaged with global trade for eras as it was

a product of political and economic relations between Europe, East African Coast and the Indian Ocean (Beck, 2005). As a result, it has arisen in a region marked by high cultural hybridity and the richness of the Kiswahili language, which have significantly impacted inter-ethnic interactions. This demonstrates that Swahili Kanga inscriptions are communicating, both orally and in writing. They also continue to be a primary mode of communication in communities as they impart pass knowledge to others, conversations, enhance meaning and entertain. From preliminary studies, it is evident than in other parts of the world proverbs and pithy phrases have been used as inspirational sources to create sculptures.

However, there is hardly any documentation of Swahili inscriptions extracted from the Kanga which have been used and transformed into inspirational sculptural creations in Kenya. Subsequently, this study extracted sculptural ideas from selected Swahili Kanga inscriptions and developed them into thematic sculptures that communicate the desired visual message. This therefore deconstructed the inscriptions into tangible sculptures for indoor public spaces of restaurants, public libraries and airport waiting areas using metal and glass as the materials of choice. Zeng and Jiang (2018) assert that art plays a vital role in beautification as it meets the aesthetic value of the space design where it creates an artistic feature, forming a new decorative style. Therefore, it is envisaged that creating indoor sculptures using metal and glass would not only create a new dimension of visual communication but also improve the quality of indoor public spaces. This study sought to significantly add to

the body of knowledge in Fine Art by demonstrating that inscription can be visually interpreted to enhance meaning in a new visual dispensation using sculpture. The use of metal and glass as a material would also contribute towards enlightening artists on the benefits of utilizing different materials to create sculptural works.

Objectives of the Study

The objectives of the study were to;

- Select and categorize Swahili Kanga inscriptions that can be used as inspiration for the creation of indoor sculptures.
- Formulate sculptural ideas extracted from the selected Swahili Kanga inscriptions.
- Create thematic indoor sculptures for the selected spaces through the application of suitable techniques in metal and glass.

LITERATURE REVIEW

Space is vital as it engages our senses in creating experiences that enhance and elicit human emotions (Adithi, 2018). It also generates relations and experiences as it is made for human practice. Within cities and buildings, there is a great deal of potential for activities and social needs to be facilitated by indoor or outdoor public and private spaces. Qian (2018) states that visual arts play an important role in interior and exterior surroundings as they enhance people's creative perceptions of certain environments and add to the

Plate 1: Outdoor sculpture in glazed fireclay.



Source: luxevictoria.ca

aesthetic ambiance, which creates sense of place. The utilisation and fulfilment of the practical use of space is the major objective when it comes to artworks and spaces. Unwanted objects or scrap materials provide a bountiful resource for artists in utilising found objects to something creative (Mears, 2018). Glass scraps are broken or wasted pieces of soda lime or stained glass. Metal scraps are pieces of bolts, nuts, automobile parts and cutoffs (Donkor, 2018). The transformation of metal into work of art through various techniques such as cutting, forging and welding seeks the idea of perfection of opening to another dimension on the world (Morosanu, Baroiu & Lese, 2016).

Metal sculpture obtained through these processes can be transformed to various shapes and forms such as human figures, abstract, plants, animals or insects providing the viewers a show of artistry. Various techniques of joining metal together include mechanical interlocking, mechanical connection, welding, casting soldering and brazing processes. These techniques in metal scrap have preferred characteristics in the creation of sculptural works and can be used for interior and exterior purposes. Glass is a medium with different textures, colours, finishes and can be shaped into decorative or sculptural pieces. Mears (2018) notes that artists may be inspired to create artistic works such a sculptures using different materials, take them to new indoor and outdoor environments and leave indelible imprint on the mind of its observers (*Plate 1* and 2).

Plate 2: Indoor wooden sculpture.



Source: conservegypt.com

Indoor sculptures are created using various materials such as metal, glass, stone and wood for indoor display unlike open-air sculptures which are aesthetically created to enhance outside surroundings using durable materials to endure certain weather conditions (Indoor sculpture -From the Fort Wayne Museum of Art, 2021). People can engage with the artworks and environment through this channel as it creates a visual aesthetic effect. According to Hopkins (2003), a sculpture requires both touch and viewing, thus space is important when appreciating it. Elements of artistic works such as texture, colour and shape have visual artistic features that have an effect on people where imaginations are formed (Zeng & Jiang, 2018).

Indoor sculptures have an aesthetic function on the use of interior spaces both in public and private indoor spaces. He adds that waste materials play an important role in interior space as they express design concepts which, when used creatively to create an artwork, becomes an environmentally friendly design trend. Sculpture has reached the highest levels of artistic professionalism along with other forms of arts such as painting and ceramics. Beautiful interior surroundings constitute a vital factor in developing a visual insight and attaining an aesthetic need. This is achievable through application of art principles to the artworks, their arrangement and use in particular. According to (DeSimone, 2015) artists such as Nick Cave create sculptures using found objects that project out from the wall and installations enveloping entire rooms and Graham Caldwell, a New York based artist uses glass as a sculptural medium, use their sculptural pieces to bring interior spaces to life.

Plate 3: Sculptures in indoor public spaces.



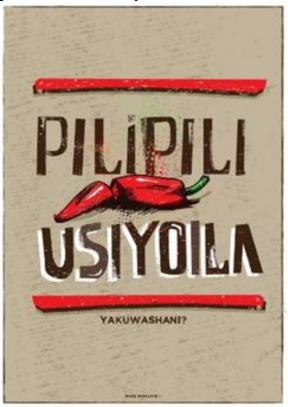
Source: hoagonsight.com

Collins (2009) describes inscriptions as writings imprinted into clothes made of different types of fabric. The inscriptions on the cloth express different meanings to people depending on where, when and also provide information to others and are often designed for public observation. Khan (2019) suggests that inscriptions are important as they give insights into a society's cultural aspects, socio-economic conditions and political features. African oral communication is rich in proverbs and sayings, therefore, there is need for visual communication as its scarcity makes it difficult to influence the visual language (Costandius, 2007). In art, visual communication plays an important role in communicating with the viewer; an idea, facts, opinions and emotions can be delivered as information (Ijaz, 2018).

In Ghana, Akan art embodies invaluable cultural information that reflects its beliefs, proverbs, other inscriptions and various intangible ideas made tangible, thus establishing a close link between visual art and the intangible. Wango (2012) embarks on using illustration in interpreting proverbs in Secondary schools in Kiambu County, Kenya. According to Wango (2012) after a preliminary survey that was carried out within the study, it indicated that visual illustration of proverbs was not applied as a method of helping students understand the meaning of proverbs in Secondary schools. The study aimed to fill the gap by incorporating visual illustrations. This was to determine uptake of meaning in proverbs and examine the impact of visual interpretation of proverbs by students in the

selected secondary schools. In the east African coast, inscriptions on the Kanga show both proverbial and non-proverbial traits, including proverbs, slogans or pithy phrases and public information messages (Beck, 2005). Musa Omusi

Plate 4: Pilipili usioila yakuwashiani Swahili proverb illustration by Musa Omusi.



Source: pinterest.com

Despite phrases and other inscriptions being used as inspirational sources in the works of art, no studies indicate evidence of Swahili Kanga inscriptions that have been used as inspiration in the creation of sculptures in Kenya. This study sought to document the inspiration process from Swahili Kanga inscriptions through extracting, analysing, developing ideas from the selected proverbial and non-proverbial phrases and by using selected Swahili Kanga inscriptions as a source of inspiration in the creation of sculptures for indoor public spaces. It is expected to give a guide on what visual illustrations through sketches would be suitable for developing sculptural ideas and application of various techniques in the creation of indoor sculptures using metal and glass.

has brought the Swahili proverbs to light through his graphic illustrations. *Plate 4* and *5* below show examples of visual illustrations of Swahili proverbs by illustrator Musa Omusi.

Plate 5: Akili ni nywelele, kila mtu ana zake Swahili proverb illustration by Musa Omusi.



Source: trueafrica.com

METHODOLOGY

This study applied an exploratory research design which is usually conducted to study a problem or phenomena that has not been previously studied (Pawar, 2020). An exploratory study, according to Smstudy.com (2016), is used to investigate an issue or subject matter and helps the researcher develop a better understanding of the problem. The study was studio-based with much of the development of sculptural ideas carried out in an art studio at the Department of Fine Art and Design, Kenyatta University. Secondary sources of data were used to collect information on the categories of Swahili inscriptions and images for sculptural ideas. This data was obtained from the internet, books, articles and journals. The design process entailed the use of photographs and sculptural ideas as inspirations on various themes

of the Swahili Kanga inscriptions that guided the researcher in the development of sketches. The visual ideas developed on the selected Swahili Kanga inscriptions were then visually illustrated through the development of artistic, sculptural, abstract, and realistic compositions.

Categorization

Categorization of the selected Swahili Kanga inscriptions were first developed. This categorization was necessary in order to guide the eventual thematic thought process of creativity of transforming the written proverbs into visual/sculptural ideas. The researcher was able to acquire the Swahili inscriptions from four literary sources which were later categorized into 8 themes. However, not all four literary sources had categorized their inscriptions into themes. Therefore, the data obtained from literary sources on the Swahili inscriptions were grouped into eight themes. These include: hard work, kindness, caution, unity, love, greed, universe and caution. The themes were further clustered into three; inscriptions on moral values. intellectual conditions of man and that mention earth. For purposes of discussion and in order to demonstrate that it is possible to transform written proverbs into sculptural renditions, this paper focused on the process of development of sculptural ideas for eight themes, where one inscription was used for each theme.

Procedure for Sculptural Idea Development and Creation of Indoor Sculptures

The procedure for idea development for each theme was as follows:

Referencing

Samples of pictorial representations of each theme as inspirations were collected from internet sources and the library. This was to make proper references for accurate depictions of forms as they would appear in each thematic interpretation and subsequently developed sculptural as interpretations.

Preliminary Sketches

Simple preliminary sketches were done on cartridge and brown paper using oil pastels, colour, graphite, and charcoal pencil to study the shapes of human, insect, birds and animal forms to create a suitable layout, which was advanced into developed sketches. Preliminary sketches helped to generate ideas and layout sculptural possibilities

Developed Sketches

Developed sketches enhanced the form and shape of each emerging sculptural form, incorporating more details and consolidating the composition in preparation for the final sketches.

Final Drawings

Final drawings were more refined and aided in the preparation for the Marquette.

Procedure for the Final Sculptures

Marquette

A Marquette, a scale model, was created using metal to explore the refinement of the final sculpture. The scale model showcased detailing of different textures, joining and finishing techniques. The Marquette also served as a foundation for the researcher to experiment with different poses and expressions and aid in refining the developed ideas and evaluate proportions before creating the large scale final sculpture.

Final Sculpture

After the creation of the Marquette, techniques such as welding, bending, and forging to create intricate shapes, forms and details. Soldering and use of silicon were techniques used in the case of glass. Finishing techniques such as polishing, painting and application of lacquer were applied to achieve various textures, colours and surface finishes contributing to structural aspects aesthetics of the final sculpture. Both abstract and realistic styles were applied to visually illustrate the sculptural compositions.

RESULTS

Theme: Unity

Inscription: Kidole kimoja hakivunji chawa, (One finger cannot kill lice. It is possible to achieve greater success when you have the support of others) *source;* Oswald et al. (2014).

Description: This conveys that some tasks or challenges are too big to be accomplished by a single individual or minimal effort alone. It

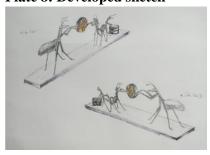
Plate 6: Image of Ants working together



Source: depositphotos.com

Plate 8 shows the developed sketch showing different views of the sculptural form. In Plate 9,

Plate 8: Developed sketch



In *Plate 10*, the Marquette was created. *Plate 11* shows the final sculpture.

emphasizes the importance of collaboration, teamwork and collective effort to achieve significant goals (Mutere, 2015).

Plate 6 is an image of ants tackling and moving an obstacle in a group to portray team work. Plate 7 shows a preliminary sketch derived from the pictorial representation where several ants are working together to arrange a stack of food to depict unity.

Plate 7: Preliminary sketch



the drawing was more refined and shows more details.

Plate 9: Final drawing

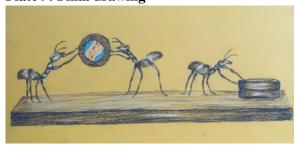






Plate 11: Final sculpture



Medium	Metal and glass
Technique	Welding, leading, polishing and lacquer application.
Size	H-79 cm, W- 274 cm, D- 31 cm
Description	The techniques that were applied in this piece were welding, bending, and forging. The
	abdomen of the ants was forged using a hammer. Round pipes and bars were welded
	together to create the legs. Galvanized wires were welded on the head to form the
	antennae. Metal sheet was bent and folded to create a circular shape to form the food
	the ants are holding. An expanded metal was welded on the circular metal forms and
	later the leading technique was used to join the glass pieces on to the metal. Polishing
	and application of lacquer were applied as the finishing technique.

Theme: Love

Inscription: Akipenda chongo huita kengeza, (Love reflects no evil) *source; Africanmanners* (2012)

Description: This conveys that true love overlooks flaws and shortcomings. It has the power to overcome challenges or difficulties.

The image of a bird feeding her young ones was used as inspiration to depict love (*Plate 12*). The preliminary sketch was developed from the image (*Plate 13*). Side and back view of the developed sketch (*Plate 14*).

Plate 12: A bird feeding her young ones



Source: youtube.com

Plate 13: Preliminary sketch

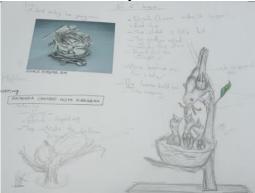


Plate 14: Developed sketch

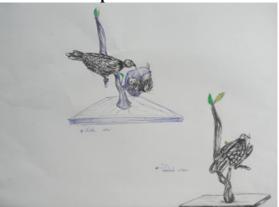


Plate 15: Marquette



Plate 16: Final drawing



Plate 17: Final sculpture



East African Journal of Arts and Social Sciences, Volume 7, Issue 1, 2024

Article DOI: https://doi.org/10.37284/eajass.7.1.1782

Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-54cm, W-43 cm, D-25.5 cm
Description	Galvanized wires were welded to create the tree texture on the round pipe. Round bars were welded on the round pipe to create the tree branches. The bird used for this piece was a Speckled Pigeon. Scrap metal was welded to create the chest and abdomen of the bird. Cut out shape designs were welded together to create textural effect on feathers and tail. Expanded metal was welded to create the bird nest. Stained glass pieces were cut into leaf shapes, foiled and soldered on to the tree. Painting and polishing technique was applied and a wooden base was used.

Theme: Greed

Inscription: Pupa haliishi, (Greed never ends) source; Mutere (2015)

Description: This saying highlights that limitless desire for more, especially wealth or possessions is boundless and can never be satisfied. The concept behind this is rooted in the observation that individuals who are consumed by greed tend to prioritize their own material gains over ethical or moral considerations. The indication is that such individuals are never content with what they possess and always strive for wealth or power.

The image below was used as an inspiration to represent greed and lack of satisfaction (Plate 18).

Plate 18: An illustration depicting greed



Source: www.linkedin.com

A preliminary sketch of a frog holding and eating flies. The frog's stomach is bulged outwards. This shows the frog is having more than enough.

Plate 19: Preliminary sketch



Final drawing and Marquette.

Plate 20: Developed sketch



Front, side and back view.

Plate 21: Final drawing.



Plate 22: Marquette.



Plate 23: Final sculpture.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-40 cm, W-43cm, D-25.5cm
Description	Round pipe was used to create the hands and legs. Washers were welded on the back of the body to create textural effect on the frog. Heated welding rod was used to create texture on the front part of the body. Spark plugs and nails were welded together to create the houseflies the frog is holding. Textured glass was cut out in the shape of wings for the housefly and silicon was used to join the glass on metal. Metal bearing balls were welded on the feet and painting and application of lacquer were applied.

Theme: Patience

Inscription: Subira huvuta heri, (Patience attracts blessings as it brings close what is far away and makes difficult things possible) (Mutere, 2015)

Description: The proverb conveys the idea that exercising patience and perseverance during challenges or difficulties eventually leads to

positive outcomes or rewards. It emphasizes the virtue of waiting calmly and persistently for the desired result instead of seeking instant satisfaction or giving in to impatience (Mutere, 2015). The proverb encourages individuals to resist rushing or abandoning their pursuits. Instead, they increase their chances of reaping the benefits of their efforts by remaining patient.

The Venus fly trap is an insectivorous plant known to be patient as it uses its leaves to attract insects and snaps shut once the insect has crawled inside (Plate 24).

Plate 24: Venus fly trap



Source: pinterest.com

Sketch of the Venus fly trap catching a fly (Plate 25). Front, side and back view (Plate 26).

Plate 25: Preliminary sketch.

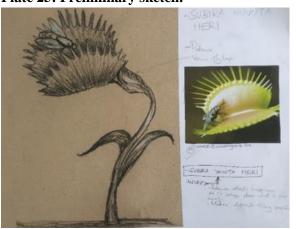
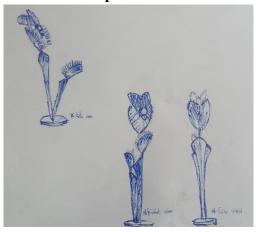


Plate 26: Developed sketch.



Final drawing and Marquette.

Plate 27: Final drawing.



Plate 28: Marquette.



Plate 29: Final sculpture.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-Cam, W-23cm, D-25.5cm
Description	Metal sheet was shaped and welded to form the Venus fly trap. Screws were welded on the plant to form the teeth. Scrap metal was used in welding the body parts of the housefly. Both stained and textures glass were used on the wings and soldered on the housefly. The insectivorous plant was polished to create a smooth finish and lacquer was applied on the final piece.

Theme: Kindness

Inscription: Wema hauozi, (Good deeds never go bad) source; Mutere, M. (2015)

Description: This saying addresses the notion that acts of kindness, generosity, and goodness will endure over time. It also suggests that the impact of good deeds lasts and can create a ripple effect, contributing to a cycle of positivity. In

essence, the saying encourages individuals to have faith in persistent power of goodness, highlighting the belief that choosing what is right will ultimately lead to positive outcomes and a better world.

An image of a child sharing a snack portrays an act of kindness (Plate 30).

 $Article\ \overline{DOI: https://doi.org/10.37284/eajass.7.1.1782}$

Plate 30: A child sharing.

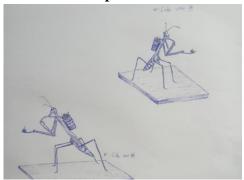


A praying mantis was used to show kindness by handing a fruit while carrying more on its back in a basket. The patterns on the basket were derived from the patterns printed on Kangas (Plate 31). Sketches on side views, 2d and 3d (Plate 32).

Plate 31: Preliminary sketch.



Plate 32: Developed sketch.



Final drawing and Marquette.

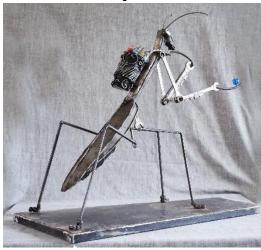
Plate 33: Final drawing.



Plate 34: Marquette



Plate 35: Final sculpture.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-54cm, W-63 cm, D-25.5 cm
Description	A square metal tube was used to create the body of the praying mantis. The abdomen was cut into pieces, forged, and welded together. Use of round bars were welded to form the legs and a roller chain was welded to form the feet. Wire was welded on the head to create the antennae. Spanners were welded on the body to create the hands and key pieces were welded on to it to create texture. Wire was welded on the basket to create different pattern designs. Silicon was used to place the glass beads on the basket. Polishing, painting, and lacquer application was applied as the finishing technique.

Theme: Hard work

Inscription: Cha bure hakipatikani, (A thing for nothing is not obtainable) *source*; *Mutere*, *M*. (2015)

Description: This saying defines the idea that one cannot expect to receive something for nothing. It also suggests that everything comes with a cost and there are no free or effortless gains in life.

Plate 36: A man pulling a mkokoteni.



Source: boshez.wordpress.com

This saying is a reminder that most valuable things require effort or sacrifice, whether it be time, energy, or resources (Mutere, 2015).

Plate 36 is a man pulling a mkokoteni. This depicts one toiling and working as the effort put in pulling a mkokoteni shows that nothing is for free. One needs to work in order to sustain his / her needs.

Preliminary sketch of a man pulling a mkokoteni (*Plate 37*). Front, side, and back view (*Plate 38*).

Plate 37: Preliminary sketch.



Plate 38: Developed sketch.



Final drawing and marquette.

Plate 39: Final drawing.

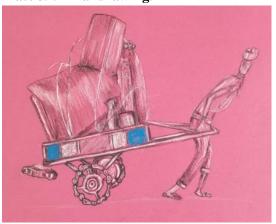


Plate 40: Marquette.



Plate 41: Final sculpture.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-35 cm, W-33 cm, D-25.5 cm
Description	Round bars were welded together to create the mkokoteni (Cart). Roller chains were
	welded on scrap metal to create the wheels. Metal sheet was cut into different shapes,
	forged, and welded to create the luggage. Riveting technique was used on tin sheet
	metal. Wire was welded on the luggage to resemble the rope that holds the luggage
	together. Metal ball bearings were welded on some luggage. Stained glass was soldered
	on metal. Scrap materials were welded on to the human figure to create the Samburu
	men ornamentation. Polishing and lacquer application was used as the finishing
	technique.

Theme: Caution

Inscription: Jogoo wa shamba hawiki mjini, (A village rooster does not crow while in town. It means that some things only fit in some environments) source; Ali& Ali. (2004)

Description: The proverb conveys that certain things are best suited and more effective in specific environments or situations emphasizes the importance of compatibility and appropriateness. This proverb encourages a

Plate 42: Roosters crowing.



Source: pinterest.com

A preliminary sketch of two roosters was done to portray dominance (Plate 43). Front and side view of the sculptural form (Plate 44).

Plate 43: Preliminary sketches.





Plate 44: Developed sketch.



thoughtful consideration of the match between attributes and environment, emphasizing the need to tailor or adapt things to fit particular situations for the best outcome. Based on the concept of dominance, it is often preferable and more peaceful to let those more suited in certain environments to take the higher ground.

Two roosters were used as source of inspiration (Plate 42).

Final drawing and marquette.

Plate 45: Final drawing.



Plate 47: Final sculpture.



Plate 46: Marquette.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-50 cm, W-53 cm, D-25.5 cm
Description	Coloured metal sheet was welded to create comb of the roosters. Cut out metal pieces were welded on the rooster's body to create texture. Roofing nails were welded to create texture on the hackle. Metal sheet was cut, forged, polished, and textured using a drill machine and hot welding rods for the wings. Red stained glass was soldered below the beak to form the wattle. Riveting was done to create the eyes. The flat bars were textured, and glass was soldered on them to form the tail. Round textured bar was welded on the body to form the legs and feet. Painting, rust, use of smoke, polishing and lacquer application was applied for the finishing technique.

Theme: Universe

Inscription: Ulimwengu hauna siri, (The world has no secrets) source; Mutere, M. (2015)

Description: This saying conveys the idea that everything is ultimately knowable discoverable. It implies that there are no hidden truths or mysteries that cannot be unravelled with the right knowledge, exploration, or investigation.

It further emphasizes the idea that there are no secrets, and that what may seem hidden at one point can be uncovered with time, persistence, or the right approach.

A pair of binoculars has been used a source of inspiration as they are adapted to provide images of distant objects. This was used to depict that

nothing hidden will not be brought out in the open (Plate 48).

Plate 48: A person using a pair of binoculars.



Source: www.huffpost.com

A preliminary sketch of a chameleon with binoculars (Plate 49). Front, back and side view (Plate 50).

Plate 49: Preliminary sketch.



Plate 50: Developed sketch.



Final drawing and marquette.

Plate 51: Final drawing.



Plate 52: Marquette.



Plate 53: Final sculpture.



Medium	Metal and glass
Technique	Welding, painting, soldering, lacquer application
Size	H-40 cm, W-23 cm, D-25.5 cm
Description	Coloured metal sheet was welded to form the chameleon's body. Perforated sheet was
	then welded to create texture on the body. A round pipe was welded to create the
	binoculars. A roller chain was welded on the body. Round bars were welded on the
	body to form the arms and legs. Wire was welded to form the tail. Polishing and
	application of lacquer was applied as the finishing techniques.

DISCUSSION OF FINDINGS

Swahili inscriptions were acquired from four literary sources which were later categorized into 8 themes. However, not all four literary sources had categorized their inscriptions into themes. Only one literary source categorized that the researcher used to categorize the selected inscriptions. The researcher was able to identify and select adequate Kanga inscriptions in the development of sculptural ideas and creation of final indoor sculptures. Idea development comprised of references of the inscriptions, preliminary sketches, developed sketches and final drawings. Not all inscriptions by nature or their verbal structure were readily convertible or interpretable into sculptural ideas. The researcher, therefore, needed to choose very carefully and illustrate the written inscriptions to visual ideas. The researcher also found that certain metaphors and analogies that describe the interpretation of the selected inscriptions can be used to visually illustrate Swahili proverbial and non-proverbial Kanga inscriptions illustrate Swahili proverbial and non-proverbial Kanga inscriptions. For example, in Plate 52, the superimposition of binoculars upon the analogy of the independently moving eyes of the chameleon enhances the inscribed meaning that nothing ultimately goes

unnoticed. In Plate 40, the familiar contextual scene of a man pulling a cart denotes hard work and enhances the inscription that nothing is ultimately handed on a silver platter.

The study found that joinery techniques such as welding had different effects on metal sheets depending on the temperatures. It was also observed that metal sheets behave differently when forged due to their thickness. When joining metal and glass together the researcher covered the glass using a cloth made of leather or soldered the glass later as the welding sparks break glass once it comes to contact with it. Silicon was also a good adhesive to use on glass and metal as it held the glass pieces firmly. For the finishing techniques, using 3 layers of lacquer effectively achieved a shiny finish on the final indoor sculptures. The use of hot welding rods was also noted to be an efficient tool for achieving a variety of textures on metal.

Spot welding was the best technique as it provided the researcher with a smooth polishing process. It was also observed that metal appears differently when exposed to different rust and heating methods. The use of glass templates and some sculptural forms was also discovered to provide the researcher with accurate measurement of glass pieces to be joined on metal. For sculptural pieces, the templates guided the researcher transferring designs by sketching the accurate measurements from paper to metal sheet. In view of these findings, the researcher proceeded to create indoor sculptures applying the new knowledge of the utilization of metal and glass using joinery and finishing techniques. It was visually evident that the final sculptures were appealing, which helped realistically illustrate each Swahili Kanga inscription.

CONCLUSION

Swahili Kanga inscriptions have become a valuable medium of expressing social ideas in Kenya. Sculptural ideas can be inspired by selected Swahili proverbial and non-proverbial Kanga inscriptions. It can be concluded that certain written inscriptions can be converted into potent sculptural interpretations without altering

meaning. In certain circumstances this meaning can actually be enhanced through the visual component and the kind of analogical or contextual illustrative form used. Sculptures have an aesthetic function on the use of interior spaces both in public and private indoor spaces. The use of scrap materials also plays an important role in spaces as they express design concepts which when used creatively to create an artwork, becomes an environmental friendly design trend save costs on decorative materials. Development of sculptural ideas requires a lot more time, thought process and creative input. Both metal and glass can indeed be used as a material in sculpture. This is evident in the indoor sculptures created by the researcher inspired by selected Swahili Kanga inscriptions. It is that sculptors will take a cue from this documentation and capture for posterity the creativity they infuse in the idea development and creation of indoor sculptures.

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