
Nor-Gha

Jewelry inspired by Norwegian filigree and Ghanaian Sankofa symbol



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ABSTRACT

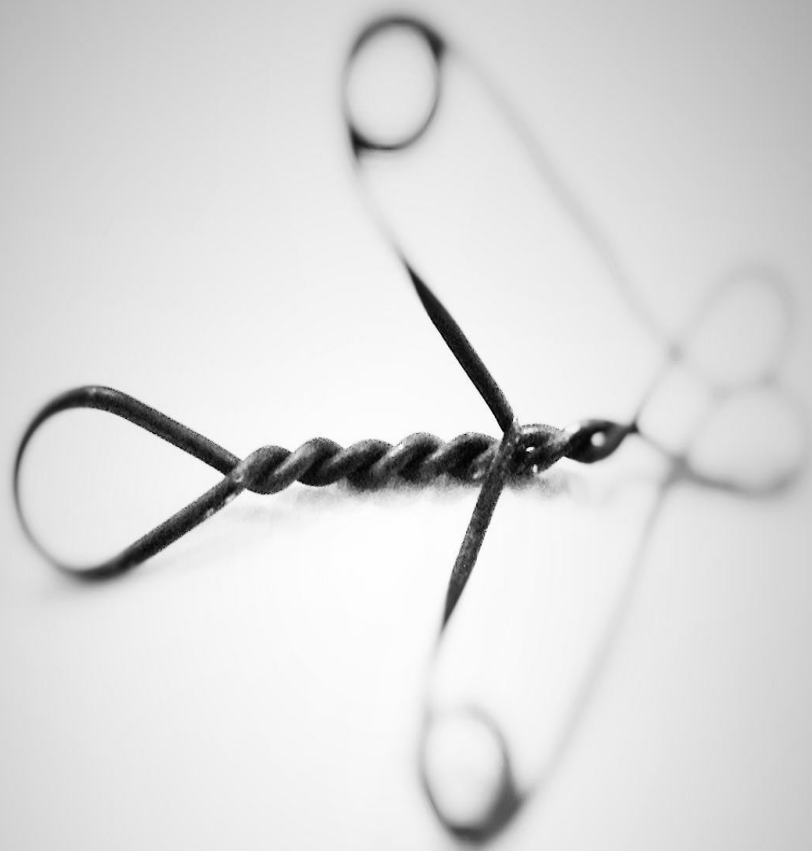
Cultural symbols from Norway and Ghana used in this project as a tool for jewelry design. The use of these symbols creates long lasting product that can contribute to cultural sustainability. The symbol selected from Ghana is Sankofa which literally means “it is not taboo to go back and fetch what you forgot” and the filigree tradition from Norway which uses a principle that the elements used must be divisible by three or four form the base of the final design. A previous research led in my masters revealed there are similarities in some motifs from Ghana and Norway.

Hence the research question, “How can cultural symbols be used to redesign a new product fit for the future generation of a globalized society”?

Data was gathered through publications, interviews, studio practice and archival works. Longevity, materiality and aesthetical values were explored during the development of this jewelry. Application of aesthetical element such as forms, material combination, proportion and texture was used. These elements were repeated, and the two materials used were balanced to create harmony. The jewelry design expresses unity between the older generation and the younger generation and contribute to sustainable values in both countries. The project concluded with a collection of jewelry that has links with both cultures.

Key words: Jewelry, Aesthetics, Product longevity, Form exploration, Materiality, Sustainability.

Background of the study



1.0 BACKGROUND OF THE STUDY

1.1 Introduction (Nor-Gha)

In recent years diversity is being preached all around the world, of which Ghana and Norway is not an exceptional. People are constantly travelling. The level of diversity is gradually increasing each day in both Norway and Ghana. The question is, are people conscious of the effects of these changes their culture or not. Globalization has come to stay due to political and economic activities between countries. Trade, labor and education are some of the main reasons for Immigration in Norway. Even though globalization and modernity are gradually pushing traditions to the edge, people are traveling more and more every day and their culture is being diluted consciously or unconsciously.

The mixing of these cultures is gradually eating up the authenticity of the culture of natives in many countries, but this issue is not being left for nature to take its course. Government and other lovers of cultural heritage are trying to preserve their culture. Thomas Hylland Eriksen writes about Norwegian identity. He mentioned a debate about "What does being Norwegian mean?" There has also been attempting to narrow down or define "specifically Norwegian" in the 1980s through to this era. Native Norwegians are uncompromising when it comes to culture and identity. (Hylland Eriksen, 2001)

Similarly, in Ghana the traditional cloth and jewelry in the form of beads and cultural symbols have been accepted as a "Friday Wear" and almost everyone is seen in these cloth attires on Friday. That is one way Ghana is trying to safeguard its culture.

Nevertheless the current generation wants to belong and go with the flow of this era, this

has led to the several questions with regards to preserving one's cultural heritage.

Cultural symbols and forms can be used as an inspiration for design, introducing native symbols and meaning into innovative jewelry designs can help the younger generation keep part of their culture and identity for a long period of time. As part of my Master study I researched into how traditions can be used as inspiration for new jewelry design. This has motivated me to go in-depth into this research topic to find innovative ways to merge cultural symbols.

1.2 Research Aim

The aim of this research is to utilize cultural symbols as a tool for jewelry design in our society. In this project, an investigation will be done to find out common traits in this cultural symbol of Norwegian silver jewelry (sølje) and Ghanaian Adinkra symbols (Sankofa), and find out the similarities between Norwegian and Ghanaian aesthetic sensibilities. Additionally, how items of jewelry from both countries are used will be mapped, this would allow me to find out common ways in which these jewelry items are used. This paper searches further into how these similarities in these traditional symbols can be revitalized, to meet the aesthetic criteria of this era through form experimentation, so as to promote culture and make room for the young generation to get emotionally attached to this jewelry. The end product of this research is a collection of jewelry that reflects the cultural symbols of both countries, it should be perceived by Norwegians as jewelry that has links from Norway and Ghanaians as jewelry with links from Ghana.

1.3 Research question

How can cultural symbols be used to redesign a new product fit for the future generation of a globalized society?

1.3.1 Sub questions

- 1. How can similarities in jewelry traditions of Norway and Ghana be combined?*
- 2. How can jewelry inspired by the Norwegian sølje (Filigree) and Ghanaian Adinkra symbol (Sankofa) contribute to product longevity?*
- 2. How can jewelry be used to vitalize the memories of users?*

1.4 Research method

The research question may probably be answered in different ways, this is due to the fact that there are so many varieties and distinct cultural symbols from both countries and cultures. The cultural behavior or identity of the society in question can also determine how the research question can be answered. Therefore, similarities between Norwegian and Ghanaian aesthetic sensibilities of sølje and Adinkra symbols will guide me in the experimentation of my concept in this study. However, in this research, I will present the answer to the question based on an interview with Hilde Nødtvedt, a goldsmith and ethnologist from Norway, Kofi A. Asomaning a former lecturer and owner of Goldland Jewelry and Adnan Mohammed a gold/silversmith and administrator of Emefa Jewellery Production Limited in Ghana. Observation, published works, archival, electronic sources and studio practice/usability test would also be employed to gather data.

1.4.1 Semi-structured Interview

The semi-structured interview strategy may be more appropriate to this research, the reason being that, I would like to get more information from the interviewee's comments and be able to ask follow up questions, this may give me a detailed and clear insight as to the topic at hand. Also to address the need for the interviewee to feel free to express herself and allow the discussion to flow to any related direction. This can probably give me a good understanding and added awareness (Lazar, Feng, & Hochheiser, 2010, p. 189). The suitable type of question for this strategy is Open-ended questions that encourage discussion and allows the interviewee to give in depth responses, opinions or other feedbacks like design requirements (Lazar et al., 2010, p. 194). Paper notes as well as audio recordings are used to capture every detail of the interview.

1.4.2 Observation

In addition to face to face interviews, observations can throw more light on how the jewelry is designed, how the wearer wears it and how value is placed on these items. A first-hand information on what happens in the natural setting of the when the bunad silver or Adinkra jewelry is worn, is a good way to know how people relate to these cultural symbols (Lazar et al., 2010, p. 179).

1.4.3 Survey

A pilot survey is necessary to be sure the data collected is valid, and there will be enough respondents (Lazar et al., 2010). The participants were random user or buyers of jewelry both genders were participants in the survey. This is because both male and females used jewelry irrespective of the fact that it is more leaning or obvious toward the female.

The pilot survey to be used in this study was conducted in autumn 2013 in a class subject titled Strategies in Product communication. The participants' knowledge of motifs and their country of origin was the main focus. The aim is to classify the common denominators; the function and form; regardless of cultural differences and desired emotional attachment to cultural motifs (Amevordzie, 2013).

Surveys gives at the opportunity to collect data from a large group of people, but with my experience with a survey, it takes more effort than just sending an email, more effort must be made to follow up the emails and motivate participants to get fully involved.

1.4.4 Archival, published and electronic sources

The use of these data collection forms will supplement data, some information I have from the library is in Norsk and these will help study both groups and know what others think or what others have studied about the topic.

Related Literature



2.0 RELATED LITERATURE

2.1 Introduction

This section talks about the areas of focus. It throws more light on what other researchers have found on related the topic. These findings will influence the choice of concept, function, how the jewelry is worn in relation to the body of the wearer, aesthetic and how longevity of the jewelry produced can be achieved.

2.2 Jewelry

Jewelry has been in existence for many decades. It is described as “objects of personal adornment prized for the craftsmanship going into their creation and generally for the value of their components as well” in the online Encyclopedia Britannica ("Jewelry," 2014). This definition boils down to the fact that jewelry has a personal voice which only the possessor of the jewelry can experience and talk about.

Jewelry is just an ordinary piece of art, design and product if there is no personal or social meaning to it. Meaning of jewelry can be formed through personal or social experiences.

Personal in this case is what makes the wearer attached to it or not due to his or her own opinion and social in in terms of ritual associated with it through a group of people.

2.3 Sølje jewelry

Jewelry in Norway has a history that dates back between 1500BC-500BC (I. Norway, 2013) through to the Viking period to date. Jewelry in the medieval period was an integral part of the rural costume. These jewelry in the form of brooches were not used only for its good looks, they were also used to express social status and identity, it was in this era that silver was also used for

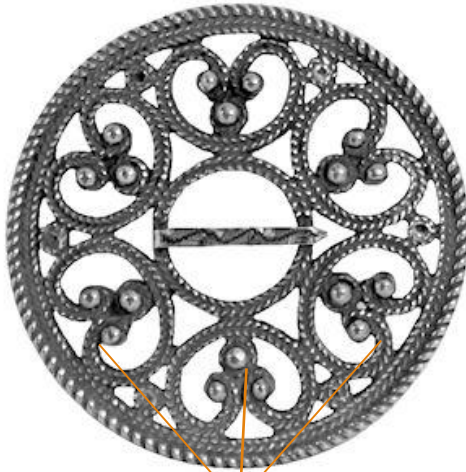
trading and other economic purposes (Berge, 1997; Telelaget, 2013). Native, raw material, in this case silver, was not known in Norway in the middle ages, but rural silversmiths who still use silver for the production of jewelry. From 1623 the use of silver in the production of jewelry started growing due to the development of a silver mining industry in Kongsberg (Mindat.org, 2014; Telelaget, 2013). Stamping, casting or cutting from sheet silver was the techniques used in forming the jewelry pieces and embellished with engraving or filigree.

The filigree technique is the use of thread or wire, sometimes ball or grains of silver in different dimensions and soldered into a design. The wire can be smooth or twisted and soldered onto the surface of an object made of silver or done in openwork ("Jewelry," 2014), filigree has a long history and believed to have come from the Far East, which followed the old trade routes through the Middle East and Europe and this was due to contact with foreign travelling apprentices which led to certain interchange of goods and skills. These contacts stimulated innovation. Filigree was first seen in Norway during the Viking era and gained more popularity through the Renaissance (D. o. Norway, 2014; Skjerven, 2013). Filigree was a basis for the development of many regional folk jewelry designs in Norway In the early 1700's and was frequently used. (Skjerven, 2013)

“The innovation was particularly strong in the countryside of mid and west Norway. The work of the local silversmiths mostly consisted of adornment for local customs, especially bridal wear. Along with the bridal headdress the most important part of this adornment were the brooches. Their design was developed to a high level and in a way that is renowned as typical of Norway. In particular, the addition of “leaves” hanging from the plate of the brooch is regarded as typical of the country”. (Skjerven, 2013)

2.3.1 The Symbolism of selected sølje Jewelry

The Rose Brooch (Rosesølje)

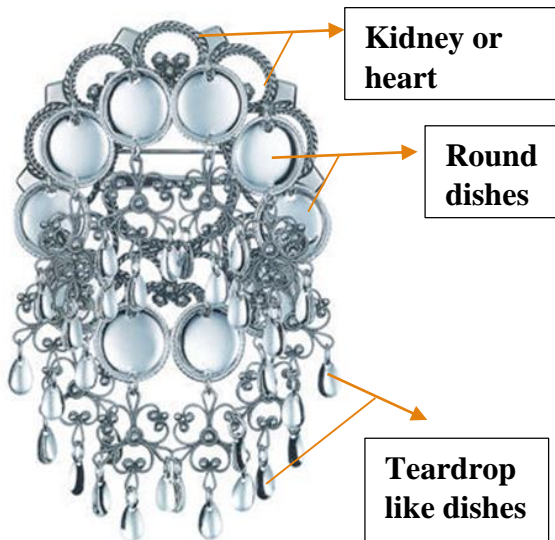


The kidney or heart shaped figurines

The rose brooch has roots back to the 1300's. It has lots of variations. Some will look like the one on the picture, and some will be without the outer ring. Those without the outer ring lack the "frame". The Rose brooch has a form that has stayed like it is from the middle ages. It has 6 open kidney- or heart-shaped figurines connected to form a circle. It is either handmade filigree or cast. (SANDO).

The kidney- or heart-shaped figurines connected to form a circle also looks like a bean seed, seed to me represents life and a new beginning. This brooch has also been the basic form on which dishes and other filigree elements are hanged.

Dish Brooch (Skaalsølje)



Kidney or heart

Round dishes

Teardrop like dishes

This brooch was used as engagement gifts. The Small dishes hanging from the brooch was a common symbol for a girl's virginity. It was said that, if the dishes on the brooch are more, it shows how much the boy appreciated his girl and his wealth. (SANDO)

This brooch has the kidney or heart shaped figurines with round and teardrop like dishes hanging from little filigree elements. In order for a guy to engage a girl, they both need to love, to appreciate each other, and all around the world the heart shape is used as a love symbol. This is the same happening here. One needs a heart and a kidney to live, before he or she can love.

In the olden days people understood symbols and drawings and associated meaning to them than we do today. This is probably because in those times people could hardly read or write. According to Sando, these brooches were randomly designed and made in a time where few of us could read or write. In the same way these brooches have symbolic meanings. The general design of the brooches was symmetry in most of the brooches. The brooches have a number of elements that are often divisible by 3 or 4. These elements could be the dishes or leaves, the filigree patterns or curves. These elements can be 6, 8 or 12.

This is because when it's divisible by 3, it refers to the holy trinity; the Father, the Son and the Holy Spirit. When it's divisible by 4 it refers to the 4 "corners" in the world; north, south, east and west. Therefore; it was an appreciation for the whole Creation. (SANDO)

2.3.2 Sølje Jewelry- Rituals

The two major ritual situation discussed here is the 17th of May celebration and Norwegian confirmation, which are events where sølje is commonly used and there are a gathering of friends and Families, these are also occasions where younger generations participate mostly.

CONFIRMATION- The sølje in Norwegian culture is of great importance. It is normally a gift from parents or grandparents to children in their teenage years. Confirmation is the ceremony performed to depict you growing up and becoming young men and ladies. In Norway this tradition is a choice, it can be in the form of Christian religious ceremony to renew your baptism vows at the church or it can be a civil ceremony at the Culture house.

The Norwegian confirmation can be traced to the Catholic era, it was during this time that the youth was taken through the spiritual entrance into a life committed to the church by teaching them in a Sunday school for a period of time. After the Reformation, when the Protestant State

Church became the administrator, it was continued since it was important for entrance into adult life (L-Jay, 2011).

Confirmation was compulsory in Norway up until 1912. The first Civil Confirmation was held in Oslo-Norway, where the focus was on civil responsibility in 1951. Today in Norway it is the Human Ethics Society that administers non-religious confirmations and it is mostly during spring (L-Jay, 2011).

17th MAY- Norway's Constitution Day is a yearly celebration of freedom. It is the most colorful day in Norway. On this day Most Norwegians wear their beautiful traditional costumes called the bunad and parade on the main streets in Norway. I was fortunate to experience this occasion in 2013. The bunad is adorned with sølje. Just as the bunad, sølje is also worn according to the area or region you originally come from. There are several variations of the bunad and sølje. This day brings together communities, friends and families. It is a day of merrymaking and a holiday for the whole nation. In Oslo, the Royal Family in Norway stands at the Balcony of the castle and waves at the populace while they parade.

The rituals are performed repeatedly, these repeated actions have memories that come with them, they may be good or bad, but these experiences are registered both on an individual basis or societal basis. These rituals make one feel as a part of a society or community. The wearing of these costumes shows your identity and loyalty as a citizen of the nation.



17th May, 2013. A friend dressed in her nordland bunad and me

2.3.3 The Aesthetics of sølje

According to David Maclagan psychological aesthetic means the relation between the actual (aesthetic) qualities of painting such as lines, color, handling, composition and so on and the inner (psychological) effect that these have on the spectator (Maclagan, 2001, p. 7)

The theory by David Maclagan relates to a two dimensional work, intend in this work to relate to sølje which is three dimensional. The aesthetic qualities here relate to the total form, material quality and composition and the psychological as the sensitivity of the wearer and other observers.



These jewelry are produced mainly in Silver, they are also gold plated or oxidized to give it a different look. Silver as a material is very reflective when polished, this gives these brooches great and reflective finish. When two metals hit against each other they create a sound, these two qualities of silver gave meaning to the life of the people of Norway in the past. It was believed that sølje has magical powers that wards off evil, and wearing silver was a part of their everyday life. Today sølje is worn to show Norwegian identity, the aura of this unique traditional costume and silver jewelry is tremendous during social occasions. This occasions shows what people identify themselves with, it also shows where people originate from without saying a word.

Also during the folk dance of the Norwegians, there are rhythm and movement, the bunad and sølje are the folk costumes suitable for this dance. Doing this type of dance creates movement and sound of the dishes or leaves and the other filigree hangings. Even though these sounds may not be loud the wearer may like or dislike the sound or even the movement.

The general tactile appeal of the surfaces of sølje is one that draws the observer's attention to these lovely brooches. The overall arrangements of patterns are balanced and rhythmic, and appear boldly when pinned to the bunad. This may clarify why it is so detailed and large. Even the smallest brooch is visible on the bunad. These brooches shows great craftsmanship, especially those made by hand that are detailed in filigree. The meaning associated with each type of brooch also gives an aesthetic aura. If the wearer of these brooches knows the meanings themselves, then they could relate to the meanings.

As an observer during the 17 May 2013, what was actually going through mind was, "this is a beautiful culture, I love those silver jewelry", one felt odd wearing another cloth and it made one stood out as non- Norwegian. Funny right, but the reality is person may not be a Norwegian, then I realized that might be the same feeling if a Norwegian should experience part of any other culture, for instance that of Ghana.

2.4 Adinkra

The Adinkra means farewell, according to tradition. The Adinkra symbols have meaning associated with them. These symbols are said to have been originated from Gyaaman (now Republic of Côte D'Ivoire) in the 19th century. History has it that Adinkra, a famous king of Gyaaman (now part of Republic of Côte D'Ivoire), annoyed the Asantehene (Asante king),

Bonsu-Panin, by trying to copy the Golden Stool. This brought about a war that was fought, in which Adinkra was defeated and killed. The Asantehene took the clothes of the Gyaaman king as a trophy, this is what have made some to suggest that the art of Adinkra came from Gyaaman. These two groups of people are all Akans ("Akan," 2014). It was originally used in textile for the purpose of mourning, but has now gained popularity in other areas like the jewelry industry (Ghana, 2014; Tetteh, 2006). The word *Adinkra* comes from the Twi words *di nkra*, meaning "to say goodbye" or "farewell".

There are over 50 Adinkra symbols in Ghana, each of these symbols have names with meaning, their meaning normally relates to, history, beliefs and philosophy of the Asantes. One needed a lot of time to study all these symbols and be able to know their meaning and how to use them, due to the proverbial meaning of these symbols. Over the years, these symbols are not only used in Ghana but all over the world.

2.4.1 The symbolism chosen Adinkra symbol-Sankofa



Sankofa is expressed in the Akan language as "se wo were fi na wosan kofa a yenki."

Literally translated it means "it is not taboo to go back and fetch what you forgot".

This symbol has two variations, it teaches about going back to learn from our past. It is used to emphasize that as humans we must go back to our origins in order to move forward. In life as general every individual or society has a past, be it good or bad. The Sankofa symbol was used to crown the very apex of a linguist staff in the Asante kingdom in the old and this was a reminder of the elders and decision makers, they should reach back and gather the best of what the past has to teach them, so as to achieve our full potential and move forward. Whatever has been lost, forgotten, forgone or been stripped off, can be reclaimed, revived, preserved and prolonged.

2.4.2 Adinkra symbol jewelry

Adinkra symbols were used by the Asante royal family but gradually everyone could freely use these symbols, irrespective of tribe or religion.

This symbol is used in jewelry design dues to the fact the Ghanaians in general appreciate culture and always have meaning for things. More intricate designs are used during special occasions.



The aesthetic quality of this Adinkra symbol in general is the meaning associated with it, most Ghanaian relates to these meanings and use these symbols according to how it suit the concept they want to create or develop.

Visually and symbolically "Sankofa" is expressed as a mythic bird that flies forward while looking backward with an egg (symbolizing the future) in its mouth. (Center, 2014)

2.5 Similarities in Aesthetic criteria



Sankofa

vs.

filigree hangings on sølje

Both the form of the Sankofa and filigree hangings on sølje have similar heart shapes with curls. This form is recognizable and can be appreciated differently in both countries. These jewelry are made from either wires or flat sheet metal. Recently gemstones of different colors have also been added to sølje which is not strange regarding Sankofa jewelry. Both Norwegians and Ghanaians use these jewelry because it represents a culture.

2.6 Longevity

Product longevity means durability, extended lifetime. It is the duration of time a product in this case jewelry keeps its integrity, remains desirable and serves its intended purpose in the hands of its owner according to K. A. Asomaning. People's pattern of consumption is often related to feelings. High quality products working according to functional needs are replaced out of emotional sentiments such as self-expression, convenience, status and belonging. (Gulden & Moestue, 2011)

Designers need to produce an emotionally durable product that has an extended lifetime in relation to sustainability and market factors. These products should be able to induce the user experience through the activation of product attachment, in other words, users of jewelry should have an emotional or psychological connection with the jewelry they buy. This will help avoid premature replacement.

In this project the design tool "Context of Experience (COE) which has a combination of consumer product attachment and psychological phenomenon to achieve longevity of products will be applied (Gulden & Moestue, 2011), this will further be explained in section 4.0.

Data and Methods



3.0 DATA AND METHODS

3.1 Research Design

This study is based on different sets of data, first, a survey conducted in a previous subject in my master study, secondly studied the dissertation of Petra Ahde-Deal in her book “Women and Jewelry-A Social Approach to Wearing and Possessing Jewelry to find out how women relate to their jewelry. I then had an interview with Hilde Nødtvedt, a goldsmith, Master in filigree, and ethnologist from Norway and Adnan Mohammed a silversmith and Administrator in Emefa Jewellery Production Limited in Ghana and final data collected during the exploration process of form in relation to Sankofa and sølje.

The first survey gave me the knowledge about some similarities in the filigree form in the Sølje to some Adinkra symbols. The survey was conducted electronically, using Survey Monkey with eleven (11) participants. The respondents were random user or buyers of jewelry. The respondents were asked their knowledge of motifs and their country of origin. The main aim is to classify the common denominators; the function and form; irrespective of cultural differences and desired emotional attachment to cultural motifs (Amevordzie, 2013).

I observed that the pilot survey had limitations, so I needed first-hand information on the filigree form and Adinkra form. The first interview was with Hilde Nødtvedt, a renowned goldsmith, Master in filigree, and ethnologist from Norway, we had a face to face interview which was in her workshop and also observation was made on her soldering some few filigree elements onto the base element which was Serpent Brooch from Telemark. The second interview with Adnan Mohammed, a silversmith and Administrator in Emefa Jewellery Production Limited in Ghana,

was via Skype. This was because their company was in Ghana and the limitation was traveling for a face to face interview was not possible due to time and high cost associated with travel to and from Ghana.

Due to limited time a study was done on a dissertation by Petra Ahde-Deal. She documented in her book “Women and Jewelry-A Social Approach to Wearing and Possessing Jewelry”.

Selected were some of the narratives with discussions done on them. This discussion will in turn be used to answer the sub questions that are in the direction of how emotional attachment, personal meaning and memories created with jewelry as a tool that influence longevity.

3.2 Data Gathering



Hilde Nødtvedt at her workshop (2014)

3.2.1 Interview with Hilde Nødtvedt

What are the boundaries you set for yourself during production, do you add your own inspirations?

I take the basic structure that is given and I never changed that very much. There are so many details that I can change. (Showing me two snake brooches) If you see this, you can recognize this as the same brooch but there are slight differences. One has three of a particular elements and the other has four and here I use little silver balls, I have a set of filigree and other elements that I can arrange and rearrange and play with. This gives me satisfaction. There are so many different ways you can do work on these brooches. The most important thing is to get the basic structure right, this makes it recognizable and not feel weird.

What are your future predictions for the Folk costume-(sølje?)

Bunad in Norway is a very important cultural traits and it is getting more popular. I think it is something that Norwegian are very proud of and it gives some this kind of Norwegian feeling and a part of national identity. This is of course not about every Norwegian but for many Norwegians, it is an important part; very often you get your bunad and silver or part of the silver for your confirmation so it is connected to bigger celebrations during your life. Also the handmade pieces are expensive, so you get it from your mother or your father or from your grandparent, this gives you a connection with family.

If the brooch was not very expensive you could just buy them from a super market, it wouldn't have this importance in my view, it is something that you really have to make an effort to get because it is expensive. So in the future, I think it will continue to stay because it is a very important identity mark.

Could there be a possibility of one national sølje in the future where all the elements merge into one?

That will be very difficult in my view because they are all very different. All the main elements are all in most of the sølje so you can have the link, but to have all the elements merged into one sølje, I think that will be a mess. But the Rose Brooch with a lot of dangles has become like the symbol that most people connects with the bunad. So I think one kind of version has emerged.



Made by Hilde Nødtvedt

The Rose Brooch without the Dangles

Which type of sølje does your customers mostly order?

Some sølje are easy to cast, and it is not easy to see the difference between the handmade one and the cast or machine made pieces. Also, my handmade pieces are three times the price of the machine made ones. The sølje from Telemark area is what I make most, because the people from that area are very much aware of the difference. They have always had lots of good services there so they have been trained to know and appreciate the handmade pieces very much. So, most of the handmade pieces are from Telemark area. But in my opinion, the other areas of the valleys have very nice models, but the people from there are not that attentive towards the selection between the handmade and machine made ones.

Some people just think the price and choose, but there are so many very nice broaches that you can only have handmade that I think deserve more attention.

Are quality and tradition a good thing for you, how do you relate to the new technologies used in mass production compared to handmade pieces?

Yes, for me, of course. The thing is, actually there are so many people in Norway that will want to buy and people having a shop like me may never meet the demands. And I also realize that my pieces are very expensive and not everyone can afford it, so I think that cast production and handmade production very well can exist side by side. Both machine and handmade pieces are satisfying different segment of the market and I will never talk bad about cast pieces because, I think we need them. The main thing for me is that people should know what they buy if they buy from a jewelry store. They should know it because then they know how to choose. So I do not

see them as a competitor or anything like that; I think it has to do with developments like you said, new production methods.

I think it is also very important to take care of this craft because if everything was cast, they will need one good craftsman to make the master product, but I am afraid that the craft it will just die and also how to repair the old pieces. It is important that one will have to take care of the tradition.

In Telemark where a school called institute for culture and traditional arts and most of the students there want to use these old pieces as an inspiration and take it to this era and transform it. I think that is great. But I think it is important that someone works like me to take care of this trade. I have several apprentices and I know that when I die there are several people that can still do it. So I think it is important.

Do you have any memory with your personal sølje?

I am from Oslo, so it's kind of little weird that I do this kind of work that is really a kind of country side craft as traditionally have been. I do not have a history because I got my first bunad at the age of 35. So when I started working with this, I had a bunad-like kind of dress that I use with my practical education brooch pieces.

Do you make an exact replica of sølje?

I very seldom make an exact copy. When you want to make an exact piece you have to consider the exact dimension which can be difficult, but you can make it very much like the original. I always insist on the strategy of making my own version. I have been sitting looking at analyzing

the old one and there are 200 snake sølje in the museum and not one of them are alike, they are all a bit different. This is what I think is important to catch in with this tradition.



Variations of Snake sølje. (Nødtvedt, 2010)

On what basis do your customers choose their sølje?

Before they come here they know what kind of bunad they have, then they ask what kind of jewelry or brooches will I recommend, and then I show them some designs in the book and my models because I do not make everything. Then they can influence the design, maybe they do not want leaves or dangles or anything. Usually they choose based on what kind of bunad they choose or have.

Do you have customers who have stories behind their sølje?

I know stories about what area it comes from. Particular brooches for the young girl as opposed to what a married woman has. The silver also is believed to have protective power. Very often some customers come with personal stories. They can tell me a story. Also, whether is a grandmother or mother who wants to give it away then they have their stories.

I sell directly to people. Then you build a personal relation and very often they come back.

Example, if I have a grandmother and she has grandchildren and it's good for me because she will come back.

What are some of the filigree techniques you use?

I use what we actually called Kruse arbeider (ripples works). I also use coils made out of wire, silver balls of different dimensions and twisted wires, openwork and solid base works.



Krusering- filigree soldered on a base

Rose brooch- open work

What is your motivation to go the traditional way?

In the seventies when I was in the process of choosing education it was one of those popular bunad waves with the old fashion dancing. Everybody wanted to go out, buy a farm and grow crops. Then I got into an apprenticeship with an old master. I found out the basic craft as a goldsmith course and being trained with filing and basic soldering techniques, I realized that if I wanted to make something from the start to the end and not end up doing repair work or end up in a big factory, the filigree work and the bunad silver market place was a good option and that is why I chose this part of the tradition and with the combination of the interest in the bunad, folk dancing and music.

How is music connected to sølje?

In the folk music, the traditional violin that is used has the melodies these players use. It's also mainly a framework of several parts put together, and then they can play with or re-arrange the parts in various sequences, also depending on their moods they can put on various embellishments, curls, swells, stop and change the rhythm, they can really influence what they are playing. It's like I do in my work. When I make these parts, I vary it with different elements and it's different from brooch to the brooch. This is my comparison between the music and this craft. And I often listen to this music and it gives me inspiration.

Ten years ago, I was at a seminar about folk art and there was a famous scientist, music theoretician and she talked about the grammar of the folk music, the little parts, how they vary, I was sitting there gazing at her, thinking she is talking about me. This is what my current research is based on.

3.2.2 Interview with Adnan Mohammed- Emefa Jewellery



Adnan Mohammed at Emefa Jewellery in Accra

What are your motivations for using Adinkra symbols as part of your design?

Before this company started, the owner worked with several companies and in these companies he worked, Adinkra symbol was more or less their specialty. The reason why we use this Adinkra symbol is that, it was kind of a market trend, it became a popular demand during the beginning of the company, where people walk into your shop and asked for this symbolic jewelry.

What are the boundaries you set for yourself during production, do you add your own inspirations?

As an indigenous company, our focus is on enhancing indigenous designs. Sometimes we change the structure a little, it can be distorted or made asymmetrical. With these kinds of change it makes the pieces unique from what you see in other shops. Also, we add a basic element like cycles, squares or triangles. The customer also comes with his or her own design and tell us what occasion or dress he or she is using it for, then we can make it according to their taste.



When customers come into the shop, do they already know the meaning of the Adinkra symbols?

Some customers who come to the shop do not know so much about the meaning of the pieces. So we guide them and explain the meaning to them before they choose what they like.

The demand for Adinkra jewelry locally among Ghanaians has started going down. Our old customers do not buy anymore or reduced the purchase of these kind of jewelry, but for the new users they do because every one of our customers want to own at least one Adinkra jewelry.

What is the trend of handmade jewelry design in Ghana?

Currently in Ghana, when you make jewelry, it should have a slightly different look and be out of the norm. It must be influenced by the foreign element. You have to mix with the Western world concept. It is also popular now to mix material, examples are cow horn and silver, Ghanaian local beads and silver and precious stones and also silver. This is because people in Ghana are getting more and more exposed to the outside world.



Cow horn and silver

Ghanaian beads with silver

What are your future predictions for handmade jewelry in Ghana?

Due to the high cost of handmade jewelry, people are not willing to buy the expensive handmade jewelry if they could get a cheaper machine made ones. In Ghana people want items at the lowest

possible price. To keep this market going in the future we try to reduce the production cost as much as we can.

3.2.3 Narratives from Petra Ahde-Deal Dissertation

“In the following quotation the writer describes the tradition of custom-made rings in her family. In this family, children get a graduation ring, but each ring is redesigned using the rings of earlier generations. In designing these graduation rings, children are expected to use the same materials that have been used by their parents and their grandparents.

... I would receive a golden ring from her as a high school graduation gift! Though, I would need to design it by myself.(...)The ring gift has become a tradition for us. Our three daughters have all designed their own rings, though not yet for high school graduation gifts, but for other graduation gifts... (...) May the ring tradition continues!

(Narratives)” (Ahde-Deal, 2013, p. 132)

“My mother Edda’s (...) engagement jewelry is the adornment of the family’s brides’ wedding dresses. (...) She [author’s sister and current possessor] has brought it to the wedding occasions to adorn the wedding dresses. It has been at least on Riitta’s Elina’s, Peppi’s, Jaana’s, and Mirja’s wedding dresses. Some of them have worn it in the front in the middle and some of them at the side depending on the bride. Now she is going to give the brooch to her son’s daughter Sofia (...) who lives in Turku. Sofia will get confirmed next summer, I cannot remember if she is going to give the brooch already then, or is she going to wait for Sofia’s wedding (???)

(Narratives)” (Ahde-Deal, 2013, p. 132)

“I may wear those ones even when I get old. ...Hmmm. ... I want a daughter. (Laughing). Yes, because some of my friends say, who have a daughter, I can give this to my daughter. Even if it is so expensive it is good to wear for me and my daughter. (Iris, 35 yrs)” (Ahde-Deal, 2013, p. 128)

“Grandmother’s mother’s engagement ring with two small rubies is dear to me as well. It is always given to the oldest daughter on her engagement day. (Narratives)” (Ahde-Deal, 2013, p. 129)

“I had already reached confirmation age when a lottery ticket seller came to our house. My grandmother bought one ticket, and there it was, the winning one. The prize was Kaleval jewelry’s Hannun Vaakuna. I was just in confirmation school and grandmother gave it to me as a confirmation present, hoping that it would bring luck to my life. (Narratives)” (Ahde-Deal, 2013, p. 120)

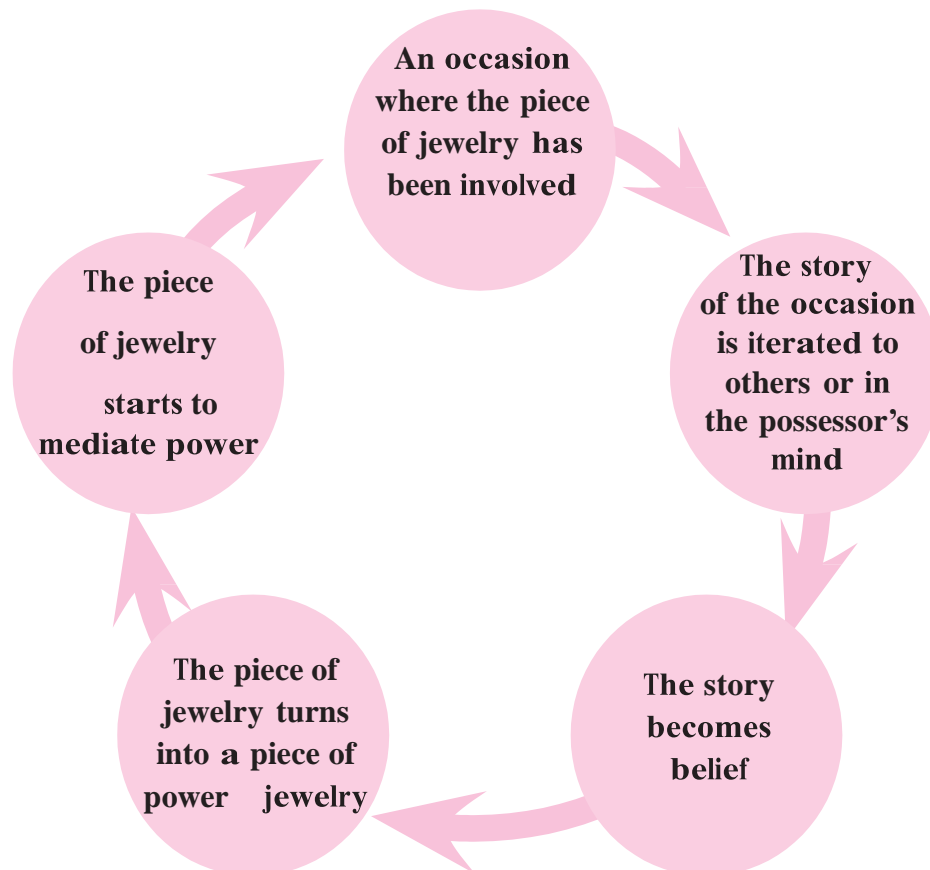
“Just because of that [the appearance of the engagement ring] I wanted to have that kind of a wedding ring, it’s because my husband had chosen the engagement ring just by himself. And it was like... like this. I think this is like... In any case this does not have anything to do with my taste. I never liked wearing it. When I did, I always turned it so that the diamond and the ornament were inside my hand. So that it looked like just a band. Because, I thought that this looked just like it was from an Easter egg. That was the reason why I wanted to have a wedding ring that looked like it was two rings. And, then because this [wedding ring] is also wavy I told my husband that unfortunately I can’t wear the original engagement ring anymore. Even though,

that was the reason to get the double band. But, you understand me. I just can't wear anything like that. It was like... (Sofia 51 yrs)" (Ahde-Deal, 2013, p. 74)

"This one which looks like the surface of the moon is the engagement ring. It was very fashionable in 1971, I still like it and I have not seen anyone else having the same one.

We both have these same rings. Then this one is the wedding ring from year '73, and it has

"huge" diamonds in it as you can see. This was... two poor students, so this was barely what we could afford. (Ella 57 yrs)" (Ahde-Deal, 2013, p. 75)



How jewelry becomes power jewelry. The loop starts on an occasion, e.g. Happy, in which jewelry has been involved. Then, step by step, the jewelry becomes power jewelry when new experiences and explanations are attached to it. This loop can continue forever and the powers may strengthen or acquire features. (Ahde-Deal, 2013, p. 122)

3.3 Inferences

The interview with Hilde Nødtvedt renowned ethnologist and master of filigree revealed so many interesting findings that threw more light on my observations. Norwegians are lovers of their culture and heritage, it will not be easy to take away their culture without facing enormous challenges. That to me is good, but I see that there are gradual changes being applied to the sølje, an example is the addition of the colorful gem stones. Also for Norwegians to recognize the concept design generated in this project, it should have some basic principle or link used in sølje. The dishes on the sølje are also highly regarded as Norwegian compared to filigree. She also highlighted how foreign student finds an interesting source of inspiration in this traditional jewelry. One student who found inspiration in the filigree work is Pamela Ritchie. An artist-jeweller based in Halifax, Nova Scotia, Canada. Her studies include an MFA from the Nova Scotia College of Art and Design, and postgraduate research work in Norway supported by a scholarship from the Association of Universities and Colleges of Canada in conjunction with the Government of Norway.



Made by Pamela Ritchie

Mohammed Adnan also talked about the fact that some Ghanaians are easily inspired by foreign culture. I have personally observed how Ghanaians love to belong when they are in a group or society and this has allowed them to sometimes copy blindly without thinking about the implication. Nevertheless, as humans always adjust to suit situation, the designers in Ghana have taken this opportunity to blend Ghanaian tradition with foreign traditions to serve this market.

The Narratives have also revealed that, before a person could have a memory in connection to his or her jewelry, there must be an experience. This experience can be a negative or positive situation. The situation could be the aesthetic qualities that drew you to buy, cost, material durability, family event, social event or even personal event. These things will allow you to value your jewelry or not.

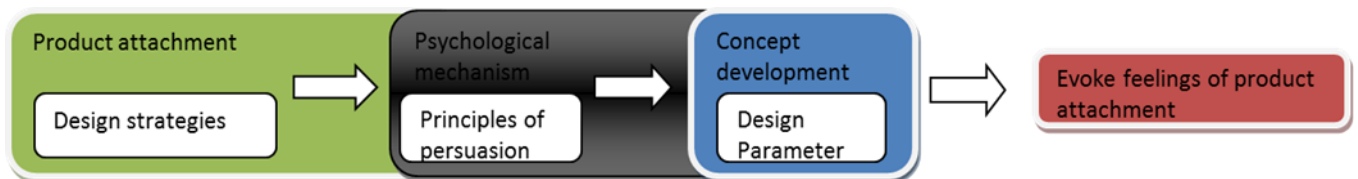
Design and Implementation



4.0 DESIGN AND IMPLEMENTATION

This section talks about the design process and development and other consideration in order to achieve the final jewelry pieces.

4.1 Design Strategy



Psychological based design approach, explained in the framework by (Gulden, Moestue, & Berg, 2010)

Design strategies – Gives meaning to the product or concept model by the use of already known symbols and meanings.

Principles of persuasion – To ensure that the product is in a position to meet the demand of product attachment and increase sales or services.

Design Parameter– Emotionally durable product, aesthetically pleasing to both countries

Evoke feelings of product attachment – influence consumer behavior to promote sustainable consumption, thus keeping product for a long period of time.

Handmade items are unique, scarce, and hard work is put into the whole designing process. Also, it gives the designer the opportunity to experience and experiment with the material and better understand the technique employed and gain mastery over these techniques.

The scarcity of these products will generate demand and high cost will allow potential users to save money for a long period to purchase hence cherishing it. People are easily influenced by people they like or want to be like, example is the younger generation wants to be like their role models or celebrities in society, they try to behave or dress like them. Friends also love to have what their friends have.

Sustainability of material in this product is based on a simple principle; every material used can eventually be recycled. A situation where unwanted elements can be returned for new ones must be encouraged to avoid throwing them away, which contaminated the environment (McDonough & Braungart, 2009)

4.2 The concept

The jewelry concept is based on the following key words; continuity, dynamic and static.

Proportional spacing, volume and balance are also being considered in the concept development.

The concept is inspired from filigree and coils from the Norwegian silver jewelry (sølje) and Ghanaian Adinkra symbol (Sankofa).

Culture is dynamic and not static, there are bound to be changes in ways of life even if globalization did not exist. This is because, passing information from generation to generation can be distorted, we all as humans listen and understand differently.

Inspirational mood board



4.3 Materiality

Materiality is an important part of my jewelry design, both in quality and sustainability. This makes the end product recognizable in a context; it represents cultural aspects of the design concept and indicate sensory qualities. Materials I choose to work with are sterling silver and porcelain. Both materials used in this project have their own physical and structural properties that can influence design, form, and construction.

As designers we need to think sustainability. In this jewelry project sustainability relies on the materiality of the jewelry product.

Care was taken to select materials that will not cause harm to the user. The use of sterling silver which is in the group of precious metal which is relatively expensive. The user of the product will not invest in this jewelry and decide later to throw it away, it will be handed over to another

person. Silver is also mined in both countries, use of locally produced material is healthy for the environment and the country gains from this act, it reduced transportation and emission of toxic gas.

The second material which is paper clay is very efficient in production it needs one firing as compare to the traditional clay which needs double firing, fuel and energy needed to produce these pieces are reduced.

Finally, recycling can be done easily if the need arises, the used of two distinct materials makes it easy to separate the pieces for recycle, the silver can be reused over and over again without any difficulty.

4.3.1 Porcelain Paper Clay

Paper clay has a sticky nature that makes it easy to mold and work with, it dries at a relatively fast rate and also when wet foam is wrapped about the unified pieces it returns to its normal state at a faster rate compared to the normal clay, paper clay turns to have small cracks when worked for a longer time. Moisture in the clay dries out very quickly and cracks give the clay an aged look and texture. Paper clay is organic and can be found in both countries, which makes it possible for this jewelry to be produced in either country.

The clay can be formed into any structure you want, the only problem I had with the clay was, it was a bit difficult for me to make very thin coils. Porcelain paper clay is very strong when leather-hard to dry. It becomes lighter when fired. It saves a lot of energy which is a good aspect of sustainability, my pieces were fired once without going through bisque firing.

Mending can also be done using slip after dry or bisque, but I prefer to leave cracks on the pieces.

Paper clay can be filed, carved, drill or saw easily, this gave me the chance to make it smoother by rubbing wet emery paper on the fired pieces.

4.3.2 Silver

Silver can be found in both countries, which makes it easy for any producer to make this jewelry piece. Silver is also the authentic material that is used in Norwegian sølje. This material is also used a lot by Ghanaian jewelers. This will make it easier for both countries to identify with the product. The aesthetic and sustainable qualities of this jewelry come with the materials used, silver is mined in both countries. Use of this material will generate income for the country also, silver is one of the best materials used in the jewelry industry due to its qualities. The silver used on this project is the sterling silver which is also called pure or fine silver. It is made up of 92.5 percent silver and 7.5 percent copper. The addition of copper is to make the silver more durable and improve the hardness to it easier to work with. It is also malleable and soft, when polished it has a very reflective surface which is pleasurable to most users. Sterling silver jewelry can be used for a lifetime if kept well, the metal is not toxic and can be used over and over again to produce new jewelry.

4.4 User group

The user of the product is the younger generation. It is not directed for a special occasion, the user has the opportunity to decide when he or she wants to use the jewelry. Some concept are

more feminine in my view and the other one more masculine. Some men as well as women prefer bold and intricate jewelry while others prepare simple ones. These jewelry design concept looks simple and intricate at the same time.

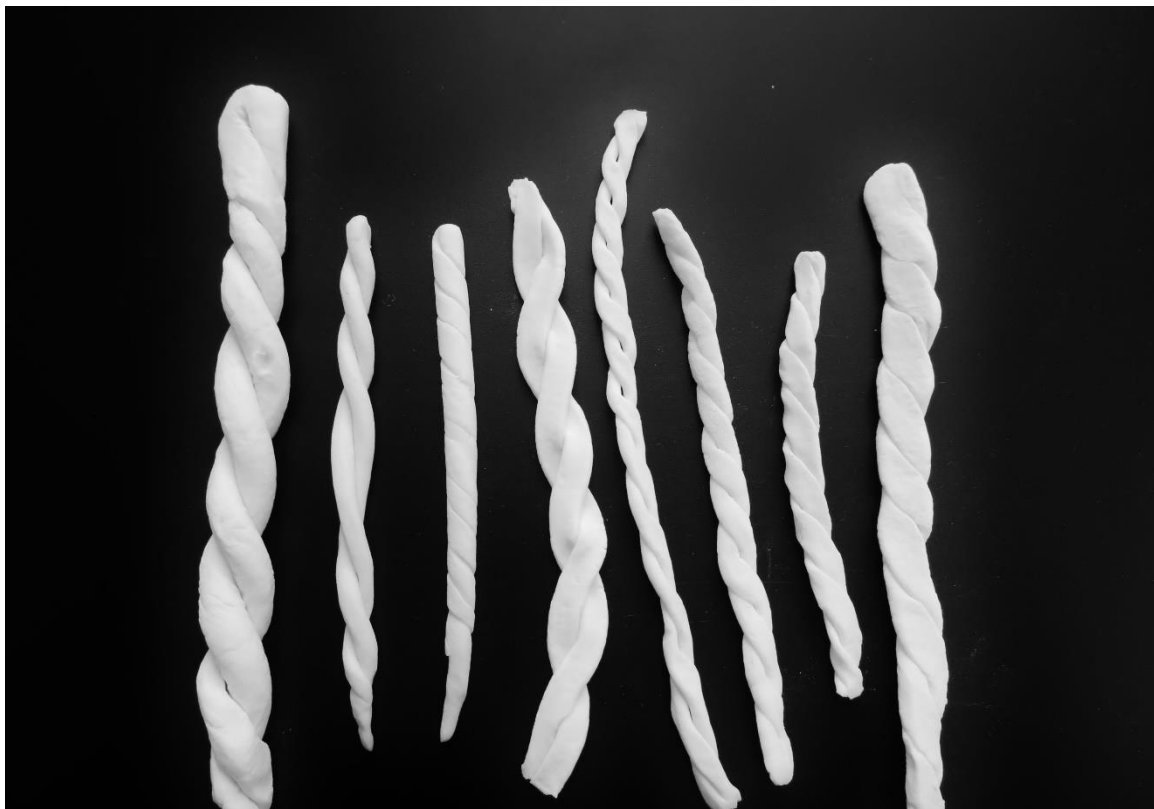
Product Development



5.0 PRODUCT DEVELOPMENT

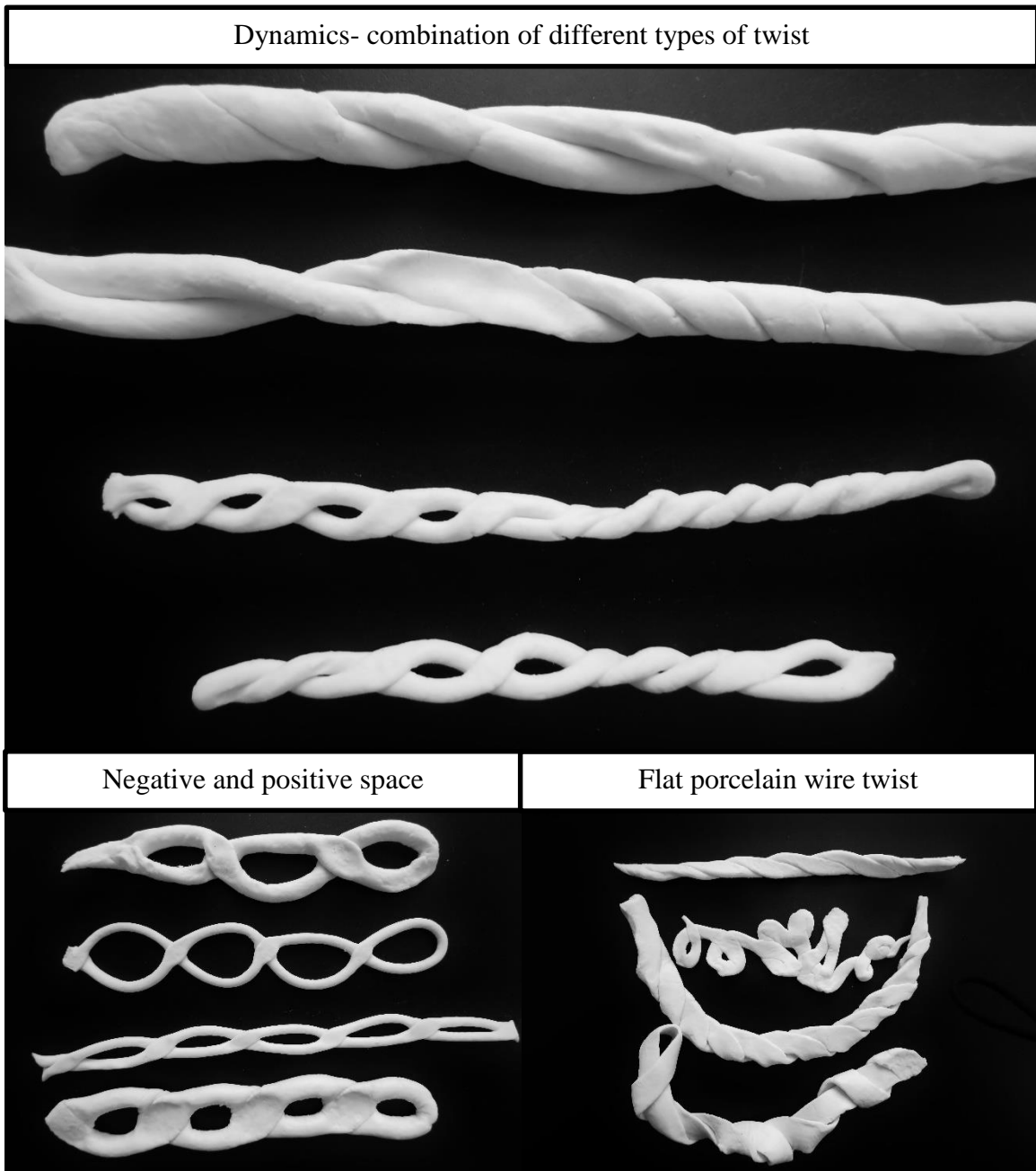
This section talks about form exploration and how the final product concept was developed. It also talks about other possible areas that can be explored.

5.1 Experimentation of form in porcelain



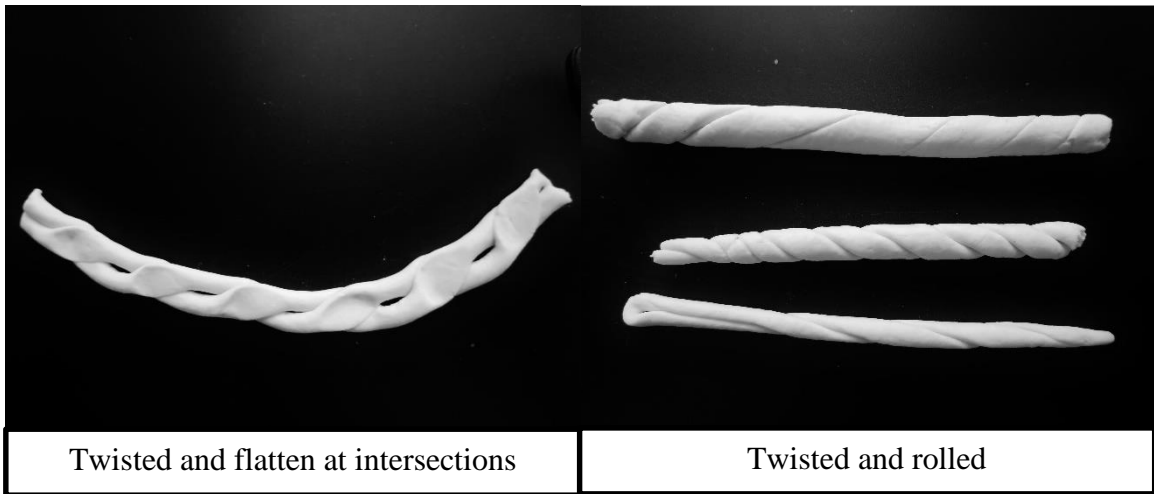
Filigree- exploration of different twist in porcelain more controlled and organic





I started to explore filigree in paper clay which is porcelain with added fibre. The twist were made to see how it will look and feel in porcelain. This was to give the jewelry a different look and feel. I used round porcelain thread by rolling pieces of clay on a fibre board with my palm. It resulted in tiny cracks along the curved area which to me was interesting. But I further wanted to experiment with flat porcelain wire and it resulted in

the same cracks. It was interesting to see how organic (forms that look more natural and are found in nature) twist looked verses the geometric (forms based on regular shapes) twist. It was difficult to have a very consistent thickness of porcelain thread, also when it is made thin and twisted it breaks easily. I then decided to try a different material which is metal. So that I could compare the strength and look of both twists.





Exploration of different coils

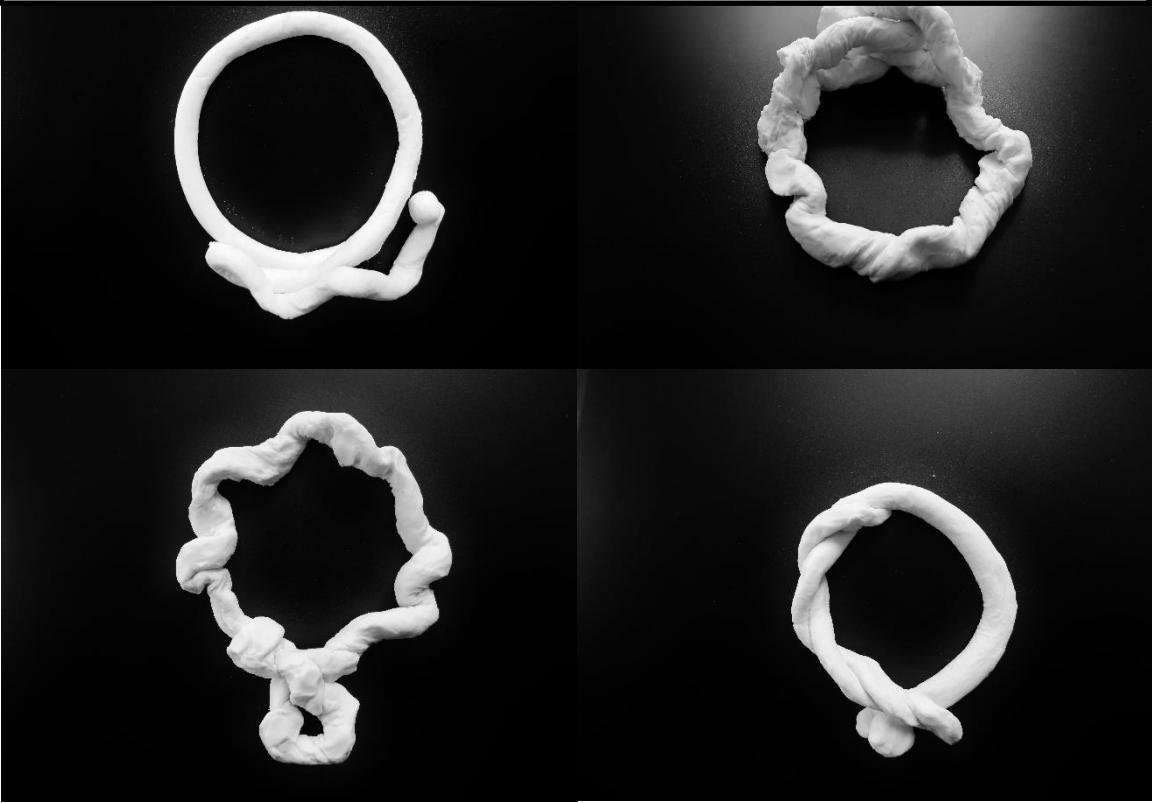
With the above coils you can see the roughness and tiny cracks. This will be unpleasant to the when the jewelry is worn directly on the skin. Further work needs to be done to take away the roughness, but keep the texture.

Sankofa symbol- Exploring by addition and subtraction

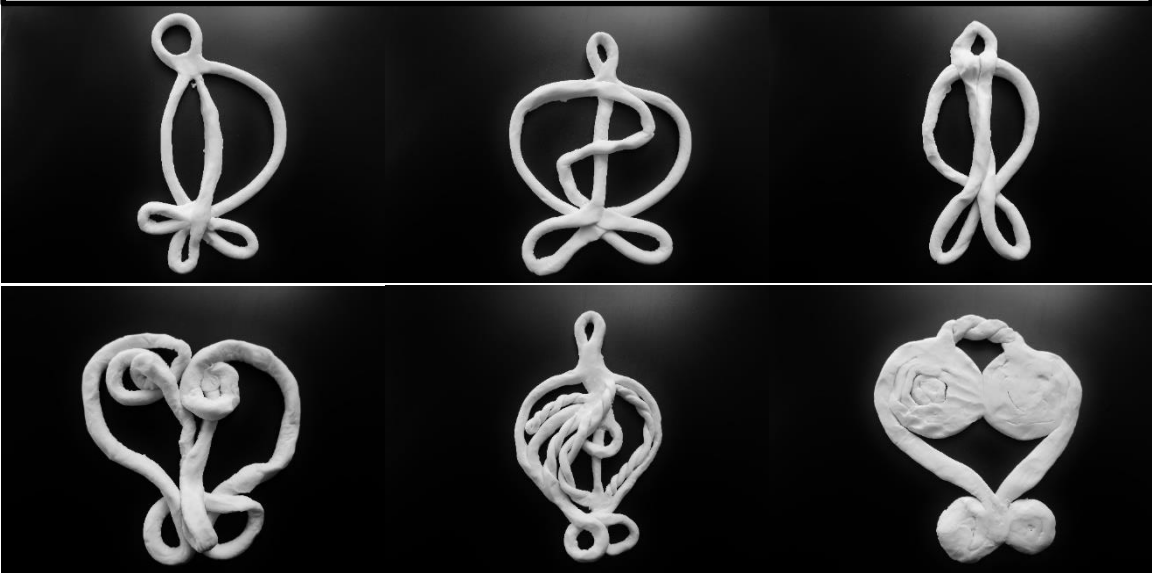


The second phase was to explore the Sankofa shape, this was done by making forms that look more like Sankofa with a totally distorted Sankofa form. The forms that look more like the Sankofa were more geometric and could be easily repeated and the distorted forms looked more organic. These porcelain forms had interesting textures created by the coils and twist. One thing that persisted in this forms were the cracks. The natural plasticity of the clay made it possible to remove cracks, but it took extra work to remove the cracks. This was done when the clay was completely dry. A foam was soaked in water and was used to rub gently on the dry clay or slip was gently applied to the cracked areas. This technique made the clay soft but smooth.

Some forms that was a bit smoothed



Forms that look more like distorted Sankofa and more organic



Forms that look more like distorted Sankofa and more geometric



Forms that look completely different from Sankofa and more organic



Experimenting porcelain chain-link



This experimentation was done to establish the possibilities of making chain-links in porcelain without the clay getting stacked with each other during for the firing process. The links came out very well after firing. Size and strength of these links made me stop the investigation because the smaller and thinner the chain the more fragile it is.

Zoom in on the texture of fired piece which is not smoothed



Experimenting iron wires



Forms made with metal wires are more three dimensional. Iron wires were strong, but my difficulty was how to end the form without soldering it together. This was an advantage in porcelain that you can join parts easily.

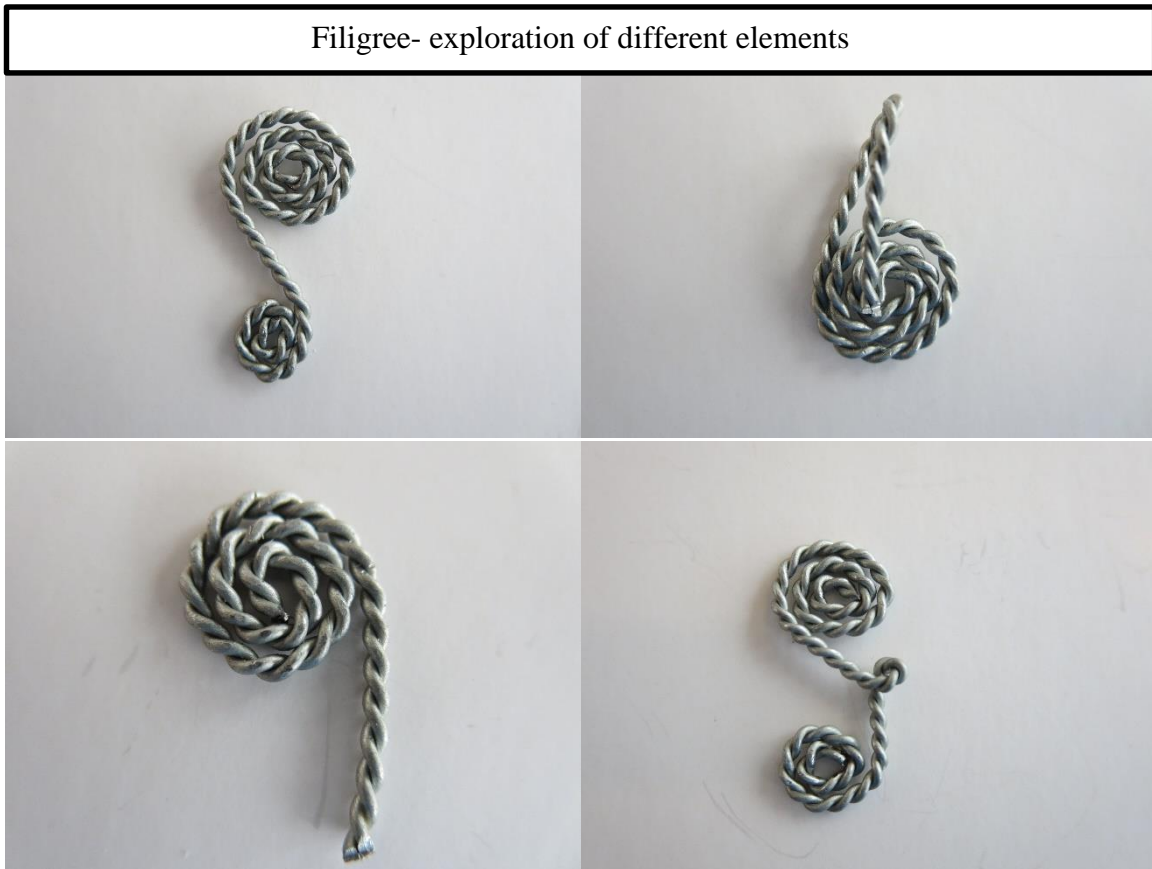
Combination of porcelain and copper wire or iron wire



The combination of metal and porcelain enhance the forms. It is made to look finer and cleaner. The metal covered up part of the rough texture that will irritate the skin when worn directly on the skin. More improvement needs to be done at this point. From this point I decided to select a design based on the interviews conducted both from Ghana and Norway. I also based the selection on the class discussions with group members and with other lectures including my supervisors.

5.2 Journey to final concept

After further research about sølje and Adinkra symbols, it was important to show two cultures in the jewelry in order for it to be easily recognized by both culture. I decided to take the basic filigree construction form, which is the sølje part should be divisible by 3 or 4. Based on this theory I start constructing elements with twisted iron wire to have an interesting shape that can have links with both cultures and be three dimensional at the same time. I also selected two porcelain form that I will like to further work with.



Filigree- Selected element, picture from different angles

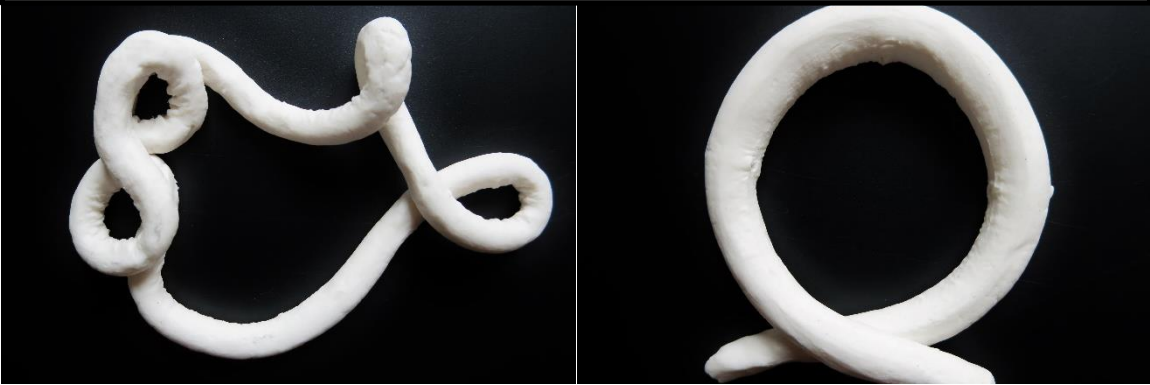


The reason for selecting the element is that it has some similarities with Sankofa and the heart shape in the *sølje*. At the same time it is three dimensional. People can relate to this element in different ways, it also looks a bit like the music symbol which was interesting for me. The other elements look almost the same as the kidney or heart shape which to me will feel boring in my project.

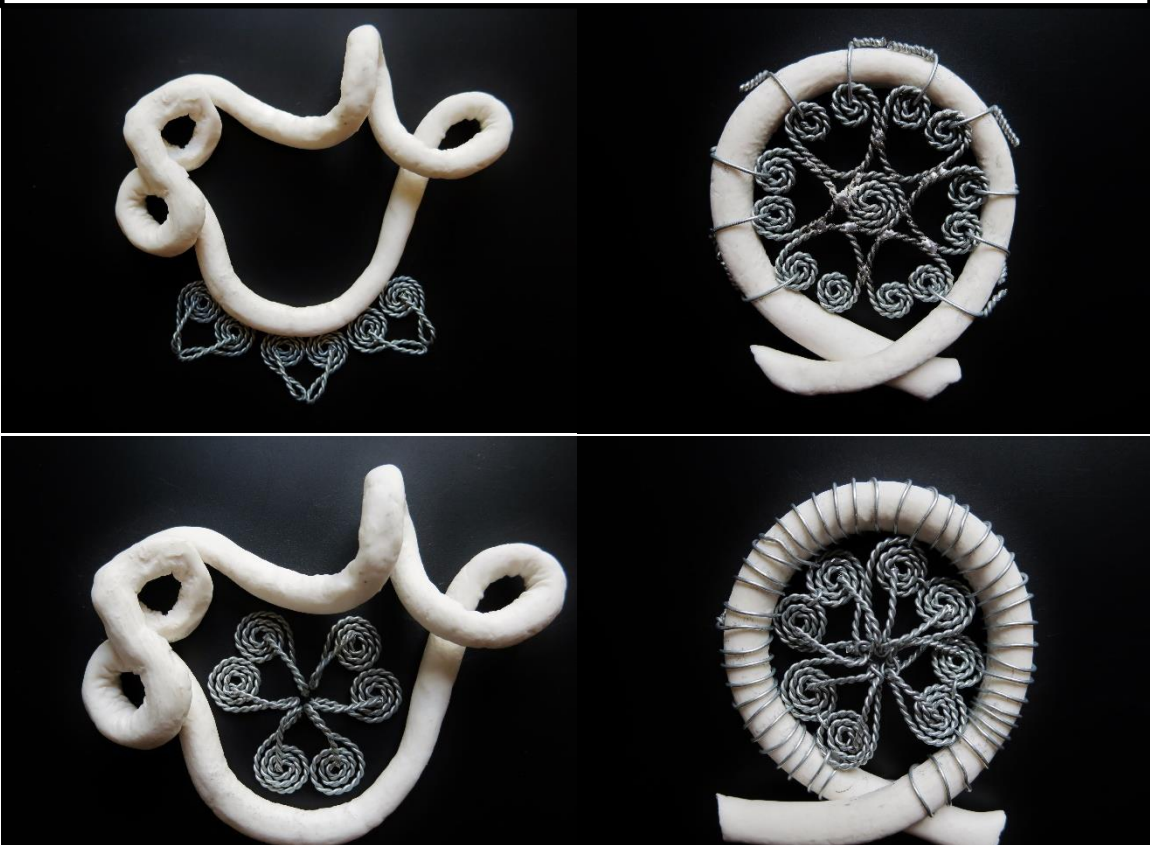
Filigree- other elements put together in different ways



Porcelain paper clay– selected forms



Combination of iron wire and selected forms



5.3 Final concept and how it fits in the human body

The final concept are four, three necklace and one hair clip. The pin fits well in the hair and can be placed anywhere in the hair depending on the choice of the wearer. The necklace also fits comfortably on the model, the length of the chains are 18 inches and it balances with the weightiness of the pendant. The length of the chain was selected because the porcelain part of the jewelry is fragile and a longer length could put the jewelry at risk of falling apart easily. Referable to the color of the jewelry, it suits best on dark colored clothes, but the wearer holds the option to decide which dress they put on. The model was given the chance to take her own wearing apparel and she settled on black because it best fits the jewelry in her opinion.

Nor-Gha Final concepts on a model



Nor-Gha Final concepts design one



18 inches silver chain

Jump ring

Filigree heart shape elements

Twisted silver wire

Porcelain element

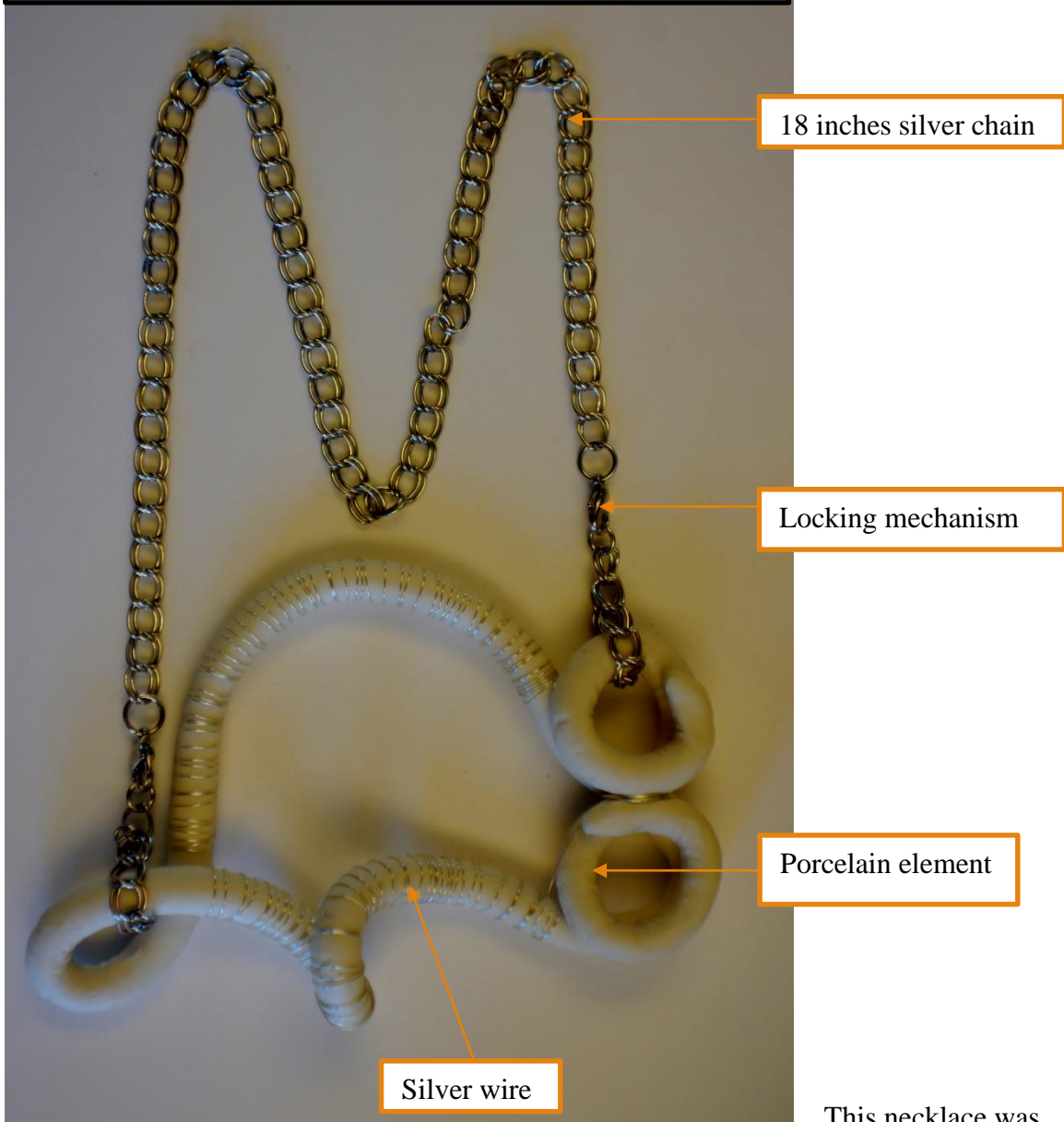
The above necklace has three heart shape based on the principles applied in filigree when producing sølje. This was performed to make it have a connection with the Norwegian jewelry tradition. The silver wire was employed to secure the filigree elements in position as well as heighten the whole aesthetic quality of the jewelry. Both sides of the necklace can be worn.

Nor-Gha Final concepts design two



The jewelry above has four heart shapes that appear similar to the *sølje* hangings. The porcelain form was birthed out of Sankofa. The twisted wire wrapped round the porcelain element secures the heart elements. This jewelry has two locks in front and side by side, this makes it easier for a right-handed or left-handed person to easily wear the jewelry.

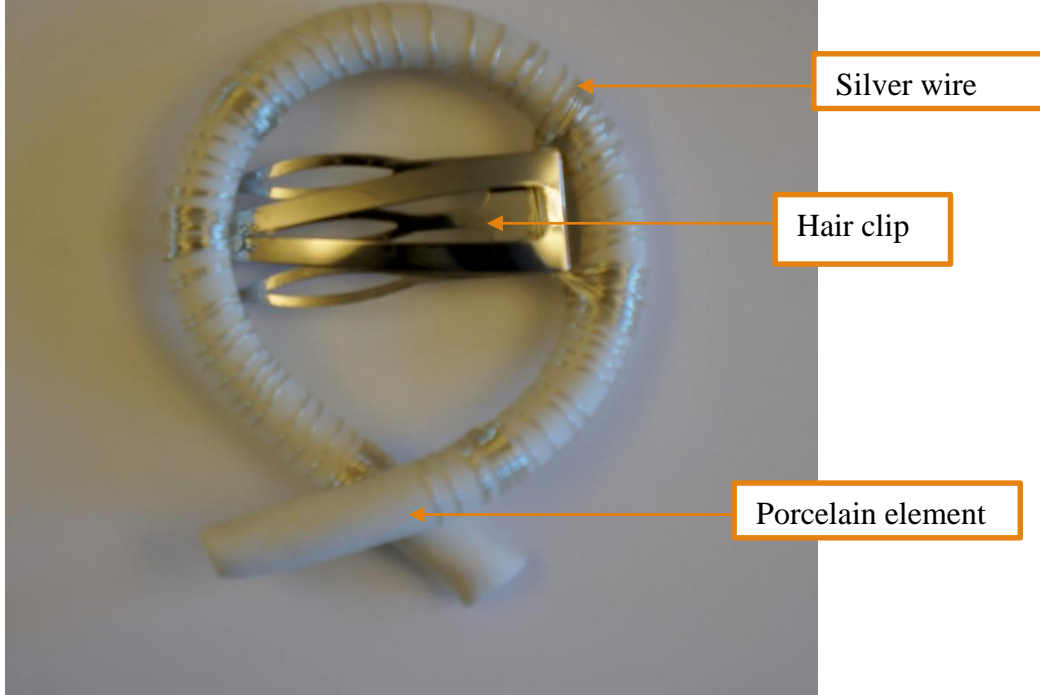
Nor-Gha Final concepts design three



This necklace was

created to reflect how silver can be used to enhance the aesthetic quality of porcelain. The silver gives it a finer look and gives it a different textural effect. The silver wrapping is camouflaged when at a distance, an observer will not see it until he or she gets closer. It gives a unique touch to the porcelain. The younger generation love bold designs, so this design best suits this group of users.

Nor-Gha Final concept design four



All the final designs that were selected can be used to produce different kinds of jewelry for different used. They can be used to produce brooch, hair clip, necklace, bracelet, and so on. The hair clip show how the forms explored can be used to produce other kinds of jewelry. This jewelry is also based in the principles applied in Nor-Gha Final concepts design three.

Nor-Gha Final jewelry concepts designs



6.0 CONCLUSION

During the period of this research, it has been realized how cultural symbols can be used to redesign new product that has meaning in the life of the people whose culture you are exploring. The journey during the course of this project has been a short but seemingly long one for me. Interesting information came up that were not known to me or other Norwegian friends. I probed into the Norwegian cultural symbols more because I was new to this culture. I needed to understand every little detail in order to design a product that best suits the aesthetic sensibilities of these people.

Application of aesthetical element such as forms, material combination, proportion and texture was used. These elements were repeated, and the two materials used were balanced to create harmony. The jewelry design expresses unity between the older generation and the younger generation and contribute to sustainable values in both countries. This research gave me the opportunity to research a subject of my interest, this saved me going throughout the operation. During my workshop experimentation, I learned to trust the whole process and keep exploring the forms.

6.1 The jewelry's contribution to longevity

Norwegian sølje (filigree) and Ghanaian Adinkra symbol (Sankofa) has been a great source of inspiration for jewelry design in this project. The jewelry design took into consideration, longevity. In this project longevity does not only mean keeping the jewelry for a long time, but also how long it keeps its integrity, remains desirable and serves its intended purpose in the hands of its owner.

According to Gulden and Moestue (Gulden & Moestue, 2011), persuasion principles can be understood as cognitive shortcuts that release a person to consider behavior in a certain context. For a human being to survive, they do what others do- social proof (Cialdini, 2009). (Fogg, 2003) also defines persuasion as an attempt to change attitudes or behaviors or both without using coercion or deception involving voluntarily change. The behavior change here is that the younger generation should grow closer to their culture through known symbols.

This leads me to the used the emotions and memories as an advantage to design the jewelry. Bunad sølje is a very popular jewelry used in Norway. It is known and recognized by both children and adult. Memories of the events where these brooches are used was my great advantage. This means they have already been primed and can easily relate to the elements in the brooches. Priming, scarcity and high cost of jewelry are the principles that will change behavior. Scarcity as a result of customizing due to the production process. Handmade products are generally unique and scarce, which give this jewelry an added advantage for the owner to keep it for a long time. The materials used and time taken to produce the jewelry will increase the cost of the jewelry. With this the person who wants to buy this will have to save up for a long time to buy it, this was highlighted in the interview with Hilde Nødtvedt, where she mentioned price as a contributing factor to why bunad sølje is cherished.

6.2 Memories

Both Ghanaians and Norwegians have occasions where jewelry is used. This occasion or ceremonies have lots of memories that are both personal and social. If this jewelry is

presented to a person as a gift or used during a particular occasion it carries the memories of that event. Any time the person sees that jewelry he or she will be reminded of that event. Therefore the use of elements that are recognizable by both cultures can remind users of the culture, thus vitalizing the memories of others.

6.3 Combination of similarities between both cultures

Similarities found in the forms from both cultures were very interesting. Both forms look almost the same, they had coils the end of a heart shape. This combination seems simple, but in actual terms, it is not. A conclusion was reached to further explore the forms to see if they will be some common grounds to combine these similarities in symbols. Looking at the fact that the jewelry must be easily recognized I based the combination of both cultures on the findings of the interview. Ghanaians easily accept change, whereas the Norwegians do not accept change easily. The Norwegian part of the design must take up the basic filigree structure while the Ghanaian part of the design can be distorted freely with further explanation as to how the form was achieved. The filigree element chosen for the final design can be recognized by both cultures, even though it differs from the known forms.

6.4 Reflection of design concept as regards learning outcome

This project has taught me many things within a short period of time. Follow your heart was what my supervisors told me to do. This gave a result I appreciate. This project started with a personal plan which I followed to a point. At some point I needed to move faster than planned and other instances a little relaxed. Since this project was a personal

research and not with an external contact. It was necessary to interview people who were guru in the field of jewelry.

Contact with these experts helped to shape my research. The findings during the interview influenced the final design concept. Group discussion and constant meeting with supervisors for me is another key contributor to my final result.

The final product concept is a combination of symbols from Norway and Ghana. In the course of production it was a little difficult to find the right way to explore symbols that were similar. Advice from my supervisor helped me to distort the original Sankofa form, ranging from new forms that look more like Sankofa to form the look totally different from Sankofa. This experimentation gave me the motivation during my studio work session. I decided to explore Sankofa in porcelain because it is normally produced in large size but, porcelain did not give me the opportunity to make very small designs. Due to the fact that porcelain did not give me room to make small designs. The final concept was as a result of the interview with Adnan Mohammed a jeweller from Ghana. He mentioned Ghanaian are interested in new thing and Adinkra symbols that are sometimes distorted.

I decided to experiment with iron and copper wire, these materials were malleable and gave me room to have as thin as possible forms. These materials were used to develop the filigree forms from Norway. The filigree forms are originally small and I wanted to keep it like that to make it more recognizable by Norwegians. I explored the simplest way to depict continuity in the selected form for my final jewelry design. I used the ideology from Sankofa which is “go back to you origin” to depict that in the selected design. The filigree starts with a coil and ends at the beginning of the coil.

The fragile nature of the porcelain forms made me try to combine both metals and porcelain to find out if it will give it strength, but unfortunately, I did not have enough time to further experiment on strength. One interesting thing I observed during the process of combining the metal and porcelain was that, the filigree wire I wrapped around the porcelain form made it stand out and unique.

The final design concepts were based on the principles applied in Norwegian jewelry tradition and Ghanaian jewelry trend. The overall project came out successful which was my goal for the project.

6.5 My contribution to sustainability

Longevity products which are meaningful for several generations contribute to cultural sustainability. Cultural sustainability is very important due to the current rate of globalization. In this globalized world, we as product designers need to preserve traditions for several generations to come, this is to help the younger generation know their traditions and roots. The use of traditional symbols as an innovative way in product development is my way of safeguarding the unity with the past and the present in order to sustain culture.

6.6 Scope for further research

Further research can be done by casting technique to experiment with texture and precision. This will enable reproduction of similar copies. Adding color or glazing is another option. The Clay extruder gun can also be used to form coils and threads instead of palm rolling. Also the test for reaction between silver and porcelain is an important

area that was not accomplished. How the final jewelry design can be marketed and placed in a shop is also another area to further research.

REFERENCES

- Ahde-Deal, P. (2013). *Women and Jewelry*
A Social Approach to Wearing and Possessing Jewelry. Aalto University publication series: Aalto University.
- . Akan. (2014) *Encyclopædia Britannica*: Encyclopædia Britannica online.
- Amevordzie, E. A. (2013). *Global Jewelry Design* (P. Design, Trans.): Høgskolen i Oslo og Akershus.
- Berge, R. (1997). *Norskt bondesylv: med 80 bilættavlur, 5 fargeprenta tavlur og 200 tekstbilæte*. Skien: Fylkesmuseet for Telemark og Grenland.
- Center, D. L. (2014). The Meaning of the Symbolism of the Sankofa Bird. from <http://www.duboisl.net/SankofaMeaning.html>
- Cialdini, R. B. (2009). *Influence: science and practice*. Boston: Pearson.
- Fogg, B. J. (2003). *Persuasive technology: using computers to change what we think and do*. Amsterdam: Morgan Kaufmann.
- Ghana, M. (2014). Traditional polities. Retrieved April.23.2014, from http://www.modernghana.com/GhanaHome/ashanti/all.asp?menu_id=6&sub_menu_id=67&gender=
- Gulden, T., & Moestue, C. (2011). *CONTEXTS OF EXPERIENCE, A PSYCHOLOGICAL DESIGN APPROACH TOWARDS SUSTAINABLE CONSUMPTION*. Paper presented at the Diversity and Unity , proceedings of IASDR2011, the 4th world conference on design research, The Netherlands.
- Gulden, T., Moestue, C., & Berg, A. S. (2010). Psychology based design approach (PSYDA): a pedagogical concept (pp. S. 376-381). Glasgow: Design Society.
- Hylland Eriksen, T. (2001). Norwegian identity. Retrieved February.20.2014, 2014, from <http://www.bergen-guide.com/406.htm>
- Jewelry. (2014). Retrieved from Encyclopedia Britannica website: <http://www.britannica.com/EBchecked/topic/303500/jewelry>
- L-Jay. (2011). The Norwegian Confirmation. from <http://mylittlenorway.com/2011/05/the-norwegian-confirmation/>
- Lazar, J., Feng, J. H., & Hochheiser, H. (2010). *Research methods in human-computer interaction*. Chichester: John Wiley.
- Maclagan, D. (2001). *Psychological aesthetics: painting, feeling and making sense*. London: Jessica Kingsley Publ.
- McDonough, W., & Braungart, M. (2009). *Cradle to cradle: remaking the way we make things*. London: Vintage books.
- Mindat.org. (2014). Kongsberg Silver Mining District, Kongsberg, Buskerud, Norway. from <http://www.mindat.org/loc-33366.html>
- Nødtvedt, H. (2010). Galleri. Retrieved April. 27. 2014, from <http://www.hildesolv.no/galleri.html>

- Norway, D. o. (2014). Bunad Information & Traditions. Retrieved April.15. 2014, from <http://www.daughtersofnorway.org/heritage/bunad-traditions/>
- Norway, I. (2013). About Norway, Historical milestones Retrieved APRIL. 14. 2014, from <http://www.visitnorway.com/en/about-norway/history/historical-milestones/>
- SANDO, G. The hidden messages. Retrieved 24. October 2012, from <http://www.sando.no/en/category/6/1.html>
- Skjerven, A. (2013). *Vernacular traditions in Norwegian jewelry design: Past, present, future*. Paper presented at the Designing for Tomorrow: Design Education from Kindergarten to PhD, Oslo and Akershus University College.
- Telelaget. (2013). Norwegian Silver-Excerpts from Rikard Berge: "Norskt bondisylv" [Norwegian bønder-made/owned silver] (Risør, 1925) Raw Material. Imported and Locally Produced Silver. The Mines. Pages 27-34 Retrieved April.14. 2014, from <http://telelaget.com/histcult/silver.htm>
- Tetteh, V. A. (2006). ADINKRA - Cultural Symbols of the Asante people