A seat inspired by a traditional symbol from Ghana

Frederick Ampah Clement

Master's project in partial fulfillment of the requirements for the degree Master of Product Design at the Faculty of Product Design, Akershus University College Lillestrøm, Norway.

Approximate word count: 6,450

June, 2011

Abstract

This research project focused on developing a seat inspired by a traditional symbol from Ghana. A number of traditional symbols in Ghana were identified out of which three symbols were selected upon interest. The meanings and socio-cultural contexts of the three symbols were investigated towards identifying product possibilities. A seat was then developed based on one of the symbols. A report was then built documenting the process.

Two propositions were put up: (i) analysis of traditional symbols from Ghana provides product ideas; and (ii) traditional symbols from Ghana can provide inspiration for creating a seat. The analysis of the selected symbols provided varied product possibilities and inspiration which answered the propositions. The application of the meanings from the chosen symbol brought motivation to develop a seat that facilitates interconnectedness among friends and family members participating in an informal gathering, especially at home or its environs.

The investigator used the representative single case study (Yin, R. K, 2009), the Vision in Product design (ViP) approach (Hekkert and van Dijk, 2001) and participatory design (Sanders & Stappers, 2008).

Frederick Ampah Clement – Master of Product Design, HiAk, Norway – 2011

Cardinal findings/results of this study were the identification of six major groups of traditional symbols from

Ghana, the development of a seat that facilitates interconnectedness based on the link or chain symbol, and this

report that documents the process.

A principal recommendation from this research project is further research into a seat(s) based on

interconnectedness that are shaped in a circular fashion so that the last connects to the first, completing a circle

of friends or family members.

Key words/phrases: Seat, traditional symbol, Ghana.

ii

Acknowledgements

I hereby acknowledge the following for their contribution to this project:

- Tore Gulden (Supervisor).
 - Professor, Faculty of Product Design, Akershus University College, Norway.
- Astrid Skjerven (Co-Supervisor).
 - Professor, Faculty of Product Design, Akershus University College, Norway.
- Arild Berg
 - Assistant Professor, Faculty of Product Design, Akershus University College, Norway.
- Kurt Ollila
 - Technical Advisor, Faculty of Product Design, Akershus University College, Norway.
- Staff of the Faculty of Product Design, Akershus University College, Norway.

Contents		Page
1.0	Introduction	1
1.1	Background to the study.	1
1.2	Rationale.	2
1.3	Research question.	3
1.4	Propositions.	3
1.5	Theory or policy relevance of the study.	3
1.6	Order of the text.	4
	References	5
2.0	Background research	
2.1	Seat	6
	2.1.1 What is a seat?	6
	2.1.2 Why and when people sit.	7
	2.1.3 Examples of Ghanaian traditional seats.	8
2.2	The design of experience.	9
	References	11

3.0	Methodology	12
3.1	Research design.	12
3.2	Strengths of research approaches used.	13
3.3	Population for the study/targeted users.	14
3.4	Data collection procedures.	14
3.5	Research tasks.	14
	References	15
4.0	Identification of traditional symbols from Ghana	16
4.1	Adinkra symbols.	16
4.2	Stool symbols.	17
4.3	Linguist staff symbols.	19
4.4	Religious and ritual symbols.	20
4.5	Proverbs as oral literary symbols.	21
	References	23
5.0	Selection and analysis of three symbols	24
5.1	Link or chain.	25
5.2	Twists and turns.	27
5.3	One head does not go into counsel.	29
	References	31

6.0	Identification of product possibilities	32
6.1	Symbol one: Link or Chain.	33
6.2	Symbol two: Twists and turns.	35
6.3	Symbol three: One head does not go into counsel.	37
7.0	Results: Design and construction of a seat with foundation in one of the contexts identified	39
7.1	Chosen symbol and context of use.	40
7.2	Idea visualization.	41
	7.2.1 Sketches.	41
	7.2.2 Initial selected ideas and why.	58
	 First selection (CWM 1 – Connect with me 1). 	58
	 Second selection (CWM 2 – Connect with me 2). 	59
	7.2.3 Three-dimensional models using design software.	60
7.3	Mock-up models and user interaction.	62
7.4	Observations and comments.	67
7.5	Final model.	69
	7.5.1 Sketches (a hybrid of interconnection and ability to sit alone).	69
	7.5.2 Virtual / 3-D model.	71
	7.5.3 Prototype	74

8.0	Reflec	tions	76
9.0	Conclu	usion and Recommendations	77
9.1	Conclusion to the study.		77
9.2	Recom	nmendations for further research.	78
Bibliography			79
Appendices		81	
	1	Adinkra symbols.	81
	2	Stool symbols.	82
	3	Linguist staff symbols.	83
	4	Impressions and associations to the three symbols.	84
	5	Names assigned to the three symbols by respondents.	87
	6	Additional 3-dimensional design possibilities for the seat.	89
	7	The time table for the project.	95

List of figures

Figure 2.1	Asante Golden Stool used by Asante kings.	8
Figure 2.2	Queen mother's stool, state treasury of Mampong, Asante, Ghana.	8
Figure 2.3	Akan (Asante) throne.	8
Figure 2.4	Throne with Mermaid (Fante culture, Ghana).	8
Figure 4.1	The proverbial Ga State stool.	18
Figure 4.2	Nyame-dua (An altar to the sky God). Altar – place of worship.	20
Figure 5.1	Nkonsonkonson (Link or chain).	25
Figure 5.2	Nkyinkyim(Twists and turns).	27
Figure 5.3	Tikoro nnko agyina (One head does not go into counsel).	29
Figure 7.1	Sketches – sheet 1	41
Figure 7.2	Sketches – sheet 2	42
Figure 7.3	Sketches – sheet 3	43
Figure 7.4	Sketches – sheet 4	44
Figure 7.5	Sketches – sheet 5	45
Figure 7.6	Sketches – sheet 6	46
Figure 7.7	Sketches – sheet 7	47
Figure 7.8	Sketches – sheet 8	48

Figure 7.9	Sketches – sheet 9	49
Figure 7.10	Sketches – sheet 10	50
Figure 7.11	Sketches – sheet 11	51
Figure 7.12	Sketches – sheet 12	52
Figure 7.13	Sketches – sheet 13	53
Figure 7.14	Sketches – sheet 14	54
Figure 7.15	Sketches – sheet 15	55
Figure 7.16	Sketches – sheet 16	56
Figure 7.17	Sketches – sheet 17	57
Figure 7.18	CWM 1 (Connect with me 1).	58
Figure 7.19	CWM 2 (Connect with me 2).	59
Figure 7.20	Three-dimensional version of CWM 1.	60
Figure 7.21	Three-dimensional model of CWM 2.	61
Figure 7.22	Mock-up and user interaction – Part 1.	62
Figure 7.23	Mock-up and user interaction – Part 2.	63
Figure 7.24	Mock-up and user interaction – Part 3.	64
Figure 7.25	Mock-up and user interaction – Part 4.	65
Figure 7.26	Mock-up and user interaction – Part 5.	65
Figure 7.27	Mock-up and user interaction – Part 6.	66
Figure 7.28	Sketches – sheet 18.	69
Figure 7.29	Sketches – sheet 19.	70

Figure 7.30	Final virtual model – individual seat.	71
Figure 7.31	Final virtual model – Interconnection.	72
Figure 7.32	Final virtual model – Parts & stacking.	73
Figure 7.33	Building the prototype.	74
Figure 7.34	The prototype.	75
Figure A01	Adinkra symbolism.	81
Figure A02	Stool symbolism.	82
Figure A03	Linguist staff symbols.	83
Figure A04	Additional three-dimensional possibilities – Part 1.	89
Figure A05	Additional three-dimensional possibilities – Part 2.	90
Figure A06	Additional three-dimensional possibilities – Part 3.	91
Figure A07	Additional three-dimensional possibilities – Part 4.	92
Figure A08	Additional three-dimensional possibilities – Part 5.	93
Figure A09	Additional three-dimensional possibilities – Part 6.	94

1.0 INTRODUCTION

This chapter covers the background information about the project (context & perspective), rationale, research question, propositions, theoretical or policy relevance of the study and the arrangement of the rest of the text in the write-up.

1.1 Background to the study

Ghanaians have and still use both visual and oral "picture words" to express, transmit and store their thoughts, emotions and attitudes. In harmony with Dzobo (n.d.), visual images and ordinary objects are used symbolically to communicate knowledge, feelings and values. Symbols from culture can serve as means for cross-cultural understanding. Ghanaian symbolism are a rich source of ideas and meaning that reflect the culture of tribal groups in Ghana (Glover, 1992). These symbols reveal a lot about the socio-cultural circumstances surrounding the life of Ghanaians.

A seat, by popular description, is anything created to be sat in or on and might be a chair, stool, bench or related items; it is the usual part of a thing on which one rests while sitting. 'A seat is a place where you can sit...' (Oxford Advanced Learner's Dictionary, 2010).

The student deems it an interesting investigation to try to combine the socio-cultural circumstances surrounding selected symbols for design work; and in this instance, for the purpose of developing a seat. This study concentrates on seating based on a symbol and the related meaning.

As well, this study is part of the requirements to be fulfilled for the attainment of the degree: Master of Product Design. There was no sponsorship for this project but the student's own resources.

1.2 Rationale

This project was intended to be a representative or typical single case study (Yin, 2009). It is envisaged to be a holistic case study in which a seat will be designed and constructed for submission. The investigator intends to identify a number of traditional symbols in Ghana, make a selection of a few based on interest, analyze the selected symbols for meaning and socio-cultural contexts, identify product possibilities based on the meanings

and socio-cultural contexts, design and construct a seat with foundation in one of the contexts identified; and write a report documenting the process.

1.3 Research question

How can a seat have basis in a traditional symbol from Ghana?

1.4 Propositions

The study has the following propositions:

- Analysis of traditional symbols from Ghana provides product ideas.
- Traditional symbols from Ghana can provide inspiration for creating a seat.

1.5 Theory or policy relevance of the study

First, this study has value for design education and policies that guide it. It will contribute to knowledge for using socio-cultural values for the design and construction of products. Second, it has value for globalization. Developing a seat from a Ghanaian perspective brings to the fore Ghanaian culture in the face of the multiple cultures of the

world. This adds to the flavour of heterogeneity in the midst of the multi-sided ways in which this present world is interconnected. This is in tandem with the thoughts of Thomas Hylland Eriksen when he writes that 'Globalization does not entail the production of *global uniformity* or homogeneity. Rather, it can be seen as a way of organizing *heterogeneity*.' (Eriksen, 2008, p. 10). This study cannot agree more when he writes, in line with globalization, that 'The local continues to thrive, although it must increasingly be seen as *glocal*, that is enmeshed in transnational processes.'

1.6 Order of the text

Chapter two focuses on a review of some relevant literature in connection to this study; chapter three, methodology; chapter four, results of the study; chapter five, results: design and construction of the seat with foundation in one of the contexts identified; chapter six, discussion; and chapter seven, conclusion and recommendations to the study. The bibliography follows according to the APA 5th style, then appendices.

REFERENCES

Eriksen, T. H. (2008). Introduction. Globalization: Key Concepts (pp. 1-14). Oxford, New York: Berg.

Glover, E. A. (1992). Stools Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

Oxford Advanced Learner's Dictionary. (2010). Seat. . Retrieved January 13, 2011, from

http://www.oxfordadvancedlearnersdictionary.com/dictionary/seat

Yin, R. K. (2009). What are the Potential Single-Case Designs (Types 1 and 2)?: Rationale for single-case designs

Case Study Research: Design and Methods (4th ed., Vol. 5, pp. 47-53). California: SAGE Publications, Inc.

2.0 BACKGROUND RESEARCH

2.1 Seat

2.1.1 What is a seat?

The word 'seat' can be viewed from two angles: as a noun and as a verb. As a noun, it's seen as a physical object, and as a verb, it is seen as an action word or a state of being. As a noun, a seat is defined as 'a space reserved for sitting (as in a theater or on a train or airplane); buttocks: the fleshy part of the human body that you sit on' or 'furniture that is designed for sitting on' (WordNet, 2011). A seat is a part of a device that supports or directs another part, the heart of authority (a city from which authority is exercised) or any support where one can sit on in particular, the part of a chair or bench. A seat, by popular description, is anything created to be sat in or on and might be a chair, stool, bench or related items; it is the usual part of a thing on which one rests while sitting. 'A seat is a place where you can sit...' (Oxford Advanced Learner's Dictionary, 2010).

As a verb, to seat means to show to a seat; assign a seat for; be able to seat, as in the capacity of a stadium; induct: place officially in an office or position; provide with seats; the lawful right to sit as a constituent in a

legislative body, as in being elected to a seat in the Parliament; or place or fasten tightly in or on a base, example, seating a trophy on the stand (Webster's 1913 Dictionary; WordNet, 2011).

For the purpose of this project, the researcher defines a seat as any support or thing that one can sit on or in that has value for cultural and globalization.

2.1.2 Why and when people sit

In the researcher's view, to sit is to assume a temporary position of rest sustained by the buttocks, thighs and sometimes, feet where the upper body is relatively upright. During this position of rest, many activities can be performed. These activities are uncountable since people can use their hands, feet, eyes, noses, minds, etc. Some of these activities include reading, singing, dancing, drawing, writing, painting, typing, sleeping, eating, talking, hugging, drinking, driving, riding, playing games, and any other activity that does not require standing or lying down.

2.1.3 Examples of Ghanaian traditional seats

Clan seat



Figure 2.1 Asante Golden Stool used by Asante kings.

Throne



Figure 2.3 Akan (Asante) throne.

Queen mother's stool



Figure 2.2 Queen mother's stool, state treasury of Mampong, Asante, Ghana.



Figure 2.4 Throne with Mermaid (Fante culture, Ghana).

2.2 The design of experience

Gerald C. Cupchik and Michelle C. Hilscher (2008) outline four main themes common to emotionally moving experiences of design: connection or absorption, unique design, personal identity, and symbolic meaning. The researcher hoped to achieve some or all of these themes with his seat.

Connection or absorption refers to a basic link between a person and a design object which is somehow in line with the person's broader social world. In this instance, the individual expresses a relationship with the product as though it is to another character in the person's life in the real world. This means the individual is likely to 'ascribe human qualities to the design', report 'a physical, emotional and/or intellectual interaction' with the object, 'describe positive and/or negative emotions', speak 'at length about the experience', and indicate that the design is not complex (Cupchik & Hilscher, 2008). Most important, the individual emphasizes the point that, the design object has social meaning because it reminds him/her of someone special or significant and assists his/her socialization with others.

When a design object is viewed as being uncommon, difficult to get, designer-endorsed, having physical characteristics that attract attention coupled with social value (helping an individual to interact with others), it is

said to be *unique*. This leads to the situation where the person feels a sort of bond between the self and the designer which is also projected socially.

An individual experiences a design as being in line with his/her *personal identity* when the object expresses a quality the individual accepts as being his/her nature. In this instance, the object lends a degree of freedom and flexibility similar to the lifestyle of the user. For example, a person may feel connected to a design object that is simple in nature because (s)he accepts simplicity as a trait.

A product can have multiple levels of meaning. These meanings make the design object a metaphor in its own right, in the sense that an individual interprets the design object to have significance beyond itself. *Symbolic meaning* translates a design object to levels of importance that amplifies its value. A seat that has symbolic meaning may capture some local cultural value(s) whiles portraying those in line with globalization.

REFERENCES

- Cupchik, G. C., & Hilscher, M. C. (2008). Holistic Perspectives on the Design of Experience. In H. N. J. Schifferstein & P. Hekkert (Eds.), *Product Experience* (pp. 241-255). Delft: Elsevier Ltd.
- Oxford Advanced Learner's Dictionary. (2010). Seat. . Retrieved January 13, 2011, from http://www.oxfordadvancedlearnersdictionary.com/dictionary/seat
- Webster's 1913 Dictionary. Seat. Retrieved February 13, 2011, from
 - http://www.webster-dictionary.org/definition/seat
- WordNet. (2011). Seat. Retrieved February 12, 2011, from
 - http://wordnetweb.princeton.edu/perl/webwn?s=seat

3.0 METHODOLOGY

3.1 Research design

This project had foundation in three research methods or approaches namely, the case study research method, the vision in product design (ViP) and participatory design approaches.

The investigator used the representative or typical single case study (Robert K. Yin, 2009). This is a holistic approach through which a seat was designed and constructed, for submission. The objective was to capture the circumstances or conditions surrounding a traditional symbol from Ghana for developing a seat. The lessons learned are deemed informative about designing and constructing seat(s) in general, and especially of seats with foundation in traditional symbols. This was intended to augment the efforts of product designers and manufacturers of seats.

At the actual point of designing the seat, the researcher combined the Vision in Product design (ViP) approach proposed by Hekkert and van Dijk (2001) with participatory design proposed by Sanders & Stappers (2008). In line with the ViP approach, the researcher deconstructed the object (seat) in his mind, freeing himself from preconceived ideas. He then adopted a relational viewpoint which embraced the interaction between user and

product. This was augmented with the participatory design approach, in that he moved closer to the likely or targeted users of the seat, eliciting their views or input. The purpose was to ensure collective creativity.

3.2 Strengths of research approaches used

The case study method has the benefit of making use of multiple sources of evidence namely documentation, archival records, interviews, direct observation, participant-observation and physical artefacts. It benefits from the early development of theoretical propositions that guide data collection and analysis (R. K. Yin, 2009).

The ViP has the advantage of positioning the designer in a state of freedom i.e. freedom from mental slavery to preconceived ideas about an object. It offers psychological emancipation that releases the product designer to realize his/her full potential with an impending object/project.

Participatory design has the merit of tailoring a design object to the exact aspirations or expectations of the targeted user. This is for the reason that users are seen as co-designers whose views matter in the process of developing a product. It is a democratic approach to doing design work.

3.3 Population for the study/targeted users

The seat is meant for families and friends. The target is family, friends or group get-togethers which are usually informal gatherings often indoors i.e. social occasions, often in a person's home where people interact.

3.4 Data collection procedures

The researcher interviewed some persons who are into symbolism in Ghanaian. The interviews were recorded and transliterated. Documentation on symbols and their use in the Ghanaian cultural context were collected and analyzed. Observation was made as to how people sit for activities that do not require long hours. He also was a participant-observer as to these sittings and activities. Images of physical artefacts relating to Ghanaian traditional symbols were accessed for the purpose of understanding the socio-cultural contexts behind them.

3.5 Research tasks

The investigator indentified a number of traditional symbols in Ghana, made a selection of a few based on interest (interconnectedness and creativity), analyzed the selected symbols for meaning and socio-cultural contexts, identified product possibilities based on the meanings and socio-cultural contexts, and designed and constructed a seat with foundation in one of the contexts identified. He then proceeded to write a report documenting the process.

REFERENCES

- Hekkert, P. P. M., & van Dijk, M. (2001). Designing from Context: Foundations and Applications of the ViP

 Approach. In P. Lloyd & H. Christiaans (Eds.), *Designing in context: Proceedings of Design and Thinking*Research Symposium 5. Delft, The Netherlands.
- Sanders, E., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4, 5-18.
- Yin, R. K. (2009). Introduction: How to Know Whether and When to Use Case Studies as a Research Method. *Case Study Research: Design and Methods* (4th ed., Vol. 5, pp. 3-23). California: SAGE Publications, Inc.
- Yin, R. K. (2009). What are the Potential Single-Case Designs (Types 1 and 2)?: Rationale for single-case designs Case Study Research: Design and Methods (4th ed., Vol. 5, pp. 47-53). California: SAGE Publications, Inc.

4.0 IDENTIFICATION OF TRADITIONAL SYMBOLS FROM GHANA

The purpose of this sub-section is not to enumerate all the indigenous symbols or groups of symbols or system of symbols found in Ghana. For obvious reasons, that is not the major focus of this project. The investigator intends to provide a general idea on the traditional symbols out of which he makes a selection to facilitate the project.

Ghanaian symbols are used for different purposes which in turn provide the context for identification and use. Dzobo (n. d.) identifies six groups which are *adinkra* symbols, stool symbols, linguist staff symbols, religious symbols, ritual symbols and oral literary symbols. A degree of crisscrossing, in meaning and application, is not uncommon with some symbols.

4.1 Adinkra symbols

The word *adinkra* derives from the Twi words *di nkra*, meaning "to say goodbye." According to tradition, *adinkra* symbols are integrated into the *adinkra* cloth for the purpose of mourning. The cloth is normally worn "to say goodbye" to the dead and to empathize with the bereaved family. Funerals and memorial services are usually adorned with symbols that express various views of life and death. Glover (1992a) opines that according to history

Adinkra, a famous king of Gyaman (now Republic of Côte D'Ivoire), annoyed the Asantehene (Asante king), Bonsu-Panin, by trying to copy the Golden Stool. Subsequently, a war was fought in which Adinkra was defeated and killed. Some have suggested that the art of Adinkra came from Gyaman. (*Please refer to Appendix 1 which shows popular adinkra symbols*).

4.2 Stool symbols

The traditional stool is a symbol in its own right and is considered as the dwelling place of the soul (*se, okra*) of a nation or an individual (Dzobo, n. d.). Every individual or state must, therefore, have his/her or its stool. As a symbol of the individual's soul, it has become an important personal property. In theory, no-one is allowed to sit on another's if the owner is not using it; and so it will generally be laid on its side. In earlier times, a bride was given a stool by her husband in order to *seat* her soul in the husband's house. As well, a mother was given a new stool on the birth of a child. This act was to strengthen the continued stay of her soul in her husband's house.

In principle, the stool is considered a female. The seating section is shaped like a crescent and signifies the warm hug of a mother welcoming her beloved child(ren) home from a journey or from the labour of the day. The crescent part is called *atuu*, a word for embracing a person arriving from a journey.



Figure 4.1 The proverbial Ga State stool.

Like the *adinkra* cloth, stools are used as a medium for displaying various symbols. They have symbols carved into their middle portions. A stool, usually, derives its name from the symbol used. The message of the proverbial Ga State stool which has the symbol of an antelope standing on an elephant is that 'the top is reached by wisdom, and never by size' (E. A. Glover, 1992b). It is referred to as the wisdom stool. The stool is, therefore, a seat as well as a channel for espousing some facts of life. (*Please refer to Appendix 2 which shows some examples of stool symbols*).

4.3 Linguist staff symbols

An important official in the palace of a Ghanaian chief or king is the linguist, known in Akan (a local language) as the 'Dkyeame'. As the spokesperson, the 'Dkyeame' is the channel through whom the chief addresses his elders and people, and through whom the chief, in turn, is addressed on both private and public occasions.

Appointment to the position of a linguist is generally based on maturity or experience, expert knowledge on traditional matters, discretion and diplomacy. Being a close counselor to the chief, he pronounces judgment at the court on the behalf of the chief and his elders.

A staff of office identifies the linguist and is carved in wood, garnished with a figurative emblem, and typically covered with silver or gold leaf (A. Glover, 2002-2011). The emblem represents a proverb or communicates a highly cherished value in the society. (*Please refer to Appendix 3: Linguist staff symbols*).

4.4 Religious and ritual symbols

A good number of the foregone symbols came from religious or philosophical convictions. However, other symbols articulate direct beliefs about the High God and make known his nature. Thus, "Nyame-dua" (Figure 4.2) represents the belief in the abiding presence and protection of God.



Figure 4.2 Nyame-dua (An altar to the sky God). Altar – place of worship.

A very important religious symbol is the woman, who in Dzobo's words is 'used as a symbol of the Ewe High God in the capacity of the primordial cosmic unity-totality and the creative principle of life.' He establishes that the dual name (*Mawu-Lisa*) for the High God comprises the female and male principles; these comprise the creating principles of life and one is invalid without the other. 'But the High God as a creative principle is characteristically symbolized by a woman.'

For most Ghanaians, the reason for life is creativity and productivity. Life is imagined as a field in which the individual sows the seeds of life. The proverb, "Woman without man is like a field without seed," portrays the native creative view of life.

4.5 Proverbs as oral literary symbols

Fables, myths, maxims and proverbs are oral literary forms used in the indigenous society to communicate beliefs, values and feelings when speaking and thinking. Proverbs are usually short and to-the-point sayings which are used metaphorically to state certain general truths about life. They help to imagine and understand the core meaning of human relationships, events, life's situations and the patterns of behaviour of people. They preserve and present vital conclusions sifted from life's experiences.

For example, in the Volta region of Ghana to answer the philosophical question: What is knowledge and wisdom?, one says, "Knowledge and wisdom are like the trunk of a Baobab tree. No one person's arm's span is great enough to encompass them" (Inheritance SkinCare LLC, 2004). It is the same as saying, there is no end to knowledge and wisdom and that an individual can continually grow in knowledge and wisdom, but not be the sole embodiment of them.

Proverbs are used to express abstract truths, guide behaviour, comment on human behaviour, or to express values (GhanaNation.com, 2009-2010). For example, to guide behaviour it is said that *you do not use the left hand to point the way to your father's village*. The father's village is representative of one's roots and people, thus the

proverb means one should be appreciative of and admire what (s)he has or is. An example concerning expressing abstract truths is *Freedom given by ignorance enslaves the one who entertains it.* This means knowledge liberates or knowledge is freedom.

REFERENCES

Dzobo, N. K. (n. d.). Chapter 4: African symbols and proverbs as source of knowledge and truth.

GhanaNation.com. (2009-2010). What Proverbs are and Their Significance in Ghanaian Languages. from

http://content.ghananation.com/templates/?a=89

Glover, A. (2002-2011). The Linguist. Retrieved January 31, 2011, from http://www.arcghana.org/linguist.htm

Glover, E. A. (1992a). Adinkra Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

Glover, E. A. (1992b). Stools Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

Inheritance SkinCare LLC. (2004). The Baobab Tree. Retrieved January 28, 2011, from

http://www.inheritanceskincare.com/Baobab.html

5.0 SELECTION AND ANALYSIS OF THREE SYMBOLS

Mainly upon interest i.e. working with the idea of interconnectedness (globalization) on one hand, and creativity (design education) on the other, three symbols are selected for the continuation of this project: Two (2) *adinkra* symbols, and one (1) linguist's staff symbol. Two of the *adinkra* are selected because they are popular among Ghanaians and have been promoted internationally for some years. As well, a lot of them are bases for some of the other symbol groups. For example, a lot of the stool symbols incorporate the *adinkra*. No symbol has been selected from the religious and ritual group as most of Ghanaian symbols, as said earlier, have came from religious or philosophical convictions; to do so may be an indirect repetition or over-emphasizing of ideas.

Below are the names and images of the selected symbols with an in-depth analysis or investigation of their sociocultural dimensions.

5.1 Link or chain (*Nk*>*ns*>*nk*>*ns*>*n*)

(Number 13 on the Adinkra symbolism chart – Appendix 1).

This is a link or chain. This means we are linked in both life and death.

Those who share common or blood relations never break apart. It is a symbol of human relations (E. A. Glover, 1992). This is chosen in line with the interest in globalization.



Figure 5.1 Nkonsonkonson

The *nkonsonkonson* is a symbol of relationship (Asmah, 2011). A chain usually incorporates circles or ovals which are interlinked. Every circle constitutes life; life is intertwined. Just as with the chain containing circles, an individual flows into others. If the bond is very strong, such as in a family which is made up of different individuals but linked by a common bloodline, it cannot be broken. Even in marriage, the link is strong and one depends on the other.

This cycle of life cannot be broken because it is *nkonsonkonson*. By all means, somebody has to give birth to a person and by all means, though unpleasant to hear, you and I will die. Everybody needs somebody to make things happen. Even in death, we need somebody to bury us; and so everything is a cycle. If one link of the chain is

weak, the chain is bound to break. So it is the responsibility of everyone to hold, hand-in-hand, collectively, to protect and to build, seeking the well-being of all.

No person is an island, thus are we all linked. This is why upon travelling to another country or land and finding a person who speaks one's native language, a link is created that is so strong. This is especially so if the said country speaks a different language than their own. Ethnicity is *nkonsonkonson* because it depends on the common lineage of a people. Common lineage is the basis for ethnicity and regionalization (Asmah, 2011). The members thereof see themselves as responsible for each others' well-being, helping and protecting one another.

The symbol is summed up as unity, responsibility and interdependence.

5.2 Twists and turns (*Nkyinkyim*)

(Number 36 on the Adinkra symbolism chart – Appendix 1).

This goes with the idea of creativity.

This symbol emanates from the proverb that says 'the one creating a path does not see or know that it (the path) may not be straight'. In the past, the ancestors of the Ghanaian people had to meander through rocks, rivers,



Figure 5.2 Nkyinkyim

trees, mountains and valleys on their way to farm. Technology was not advanced as it is today. The nature of the rough terrain and the rough experience gave birth to the *Nkyinkyim*. According to A. E. Asmah (2010), the symbol represents a zigzag, meandering, twisting and turning, twisted patterns, ups and downs. It came from the daily activities of farming of the local people. They created the symbol.

There is an Akan proverbial expression that says "the road of life is zigzag-like as the nkyinkyim". This means the course of life is full of twists, turns, ups and downs. In many instances, one cannot predict exactly what will happen. One meanders through life like a stream trying to find its path as it flows, depending on the terrain. The philosophy is that one needs the counsel of the experienced to minimize the number of twists and turns or up-

and-downs in life. It captures the fact that sometimes it is natural for humans to deviate on their way towards a goal. Thus, we need an experienced person(s) to monitor our progress from one stage to another in order to minimize the number of twists and turns. Rattray (1959) confirms this. It is important to stress that some people relate the symbol to the role of a queen, however, that is not the correct picture. In actual fact, the symbol has very little to do with royalty.

The four protrusions at the base of the symbol have meaning; they refer to the options available, to an individual at different times when taking decisions. No matter how many times a person twists or turn in life, s(he) comes to the point where a decision has to be made. The options can be many. The important issue is that one has to make a choice from the options available, which is why there is the need for counsel, as said earlier.

Thus, when one gets to the cross-roads in life, it takes the person who is tough, adaptable, versatile, and resolute to tell you which direction to take, as well as a person of the same calibre taking own decisions. An individual with these qualities is definitely seen as creative, not static. In this regard, the symbol has implication for day to day living and its philosophy can be applied by anybody. It is not the sole preserve of royalty.

5.3 One head does not go into counsel (Tikorannka agyina)

(Number 3 on the linguist staff symbolism chart – Appendix 3).

This is in line with the thought on globalization plus creativity in that ideas are shared to develop multiple approaches for solving problems.

"Ddomankoma Nyansaba se, Tikoro nnko agyina." The God of wisdom says, 'one head cannot go into counsel. Two (three) heads are better than one.' (A. Glover, 2002-2011).



Figure 5.3 Tikoro nnko agyina

This has come from the judicial system under the chieftaincy institution. It has a link to royalty. A crisis calls for a solution; thus, heads are put together. *Agyina* is an Akan word which is the act of taking a break to consult a person/people who is/are wiser, on an issue at hand, before taking a decision. This symbol stands for deliberation for determining the outcome of an issue. In this regard, one person cannot decide on an important issue. Elders, leaders or people need to consult one another to end up with a wise verdict on an issue. It takes a collective idea or collective wisdom to bring a solution. This is why when a chief sits in state, to deliberate on matters, he calls his counselors for advice. The counselors talk and talk and talk (discussion). On hearing all, the chief or king is better

placed to make a pronouncement. The king, accordingly, does not rule dictatorially. Traditionally, we say "we are going into counsel" not "I am going into counsel".

REFERENCES

Asmah, A. E. (2010). *Symbolism in Asante Traditional Textiles.* Kwame Nkrumah University of Science and Technology, Kumasi.

Asmah, A. E. (2011). Traditional symbols. In F. A. Clement (Ed.). Kumasi.

Glover, A. (2002-2011). The Linguist. Retrieved January 31, 2011, from http://www.arcghana.org/linguist.htm

Glover, E. A. (1992). Adinkra Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

6.0 IDENTIFICATION OF PRODUCT POSSIBILITIES

Below are listed contexts for products and product possibilities that have come up based on the meanings and socio-cultural contexts specified for the selected symbols. It is important to note, that in addition to the researcher's own ideas, he interviewed 24 persons with diverse nationalities, culture and backgrounds: 1 Italian, 1 Chinese, 2 Ugandans, 2 Sudanese, and 18 Norwegians. Of these, there was 1 University Professor (Product Design) and 23 students (18 Product Design, 4 Vocational Pedagogy, 1 Food & Nutrition). The interview sessions were structured as follows: first, the investigator asked interviewees of their impressions and associations to the symbols; second, he asked of names respondents would give the symbols; third, product contexts or areas; fourth, what specific products interviewees would suggest; fifth, he told of the actual meanings the symbols had in his culture; sixth, he asked for contexts and product possibilities based on the actual meanings of the symbols.

This sub-section (4.3) deals with contexts and products suggestions/possibilities for the selected symbols. However, for impressions and associations given and names assigned, to the symbols, please refer to Appendices 4 and 5.

6.1 Symbol one: Link or Chain



Contexts for developing products

- Birth related machines e.g. Machine for listening to the heartbeat of children in the womb.
- Bonding for two people.
- Bringing people together.
- Cattle rearing.
- Comforting.
- Communication.
- Cooperation with people one would otherwise not have.
- Duality.
- Fertility.
- Games.
- Helping others.
- Humanity and sharing (interconnectedness).
- Insurance for living.
- Interaction via products.
- Keeping the family history.
- Love products for celebrating valentine.

- Medical products.
- More link ups with people via multiple-chip phones.
- Product that creates strong user attachment.
- Products that work when two people come together. Products with two parts.
- Reflection.
- Safe motherhood pregnancy related issues.
- Seeing oneself through the eyes of others.
- Showing love and care to people.
- Social network.
- Something to keep and treasure for two people.
- Trademark for a company.
- Traveling agency with more focus on visiting newer places and meeting people.
- Two-person type of seat and posturing.
- Working together.
- Wrappers for products.

Product suggestions

- A drink that brings people together.
- Cell phone.
- Chain and pendant (jewelry).
- Coffee machine.
- Coffin (brings people together).
- Ear plugs or phones.
- Fabric for traditional wear.
- Hearing aids.
- Key holder.
- Love badges for dresses.
- Mirrors to reflect something.
- MP3 or MP4 players.

- Organizational logo.
- Party products.
- Pillows for adults.
- Plastic tables with round bases and tops.
- Seat for a nursing mother.
- Seat for comforting people.
- Seat for the generations within a family.
- Small toys for children.
- Sofas.
- Tables.
- Wall tiles.

6.2 Symbol two: Twists and turns



Contexts for developing products

- Connectedness between gears or tools.
- Connection of people to work in a path.
- Curiosity.
- Decoration.
- Diary for self-guidance.
- Finding the path.
- Finding the right way.
- Gardening.
- Life-style shop.
- Moral guidance.
- New road signs.
- Openness.
- Options.
- Products that indicate the paths of use i.e. how others have used it or haven't used it.
- Relationship.
- Seat for connecting people.

- Seat for relaxation.
- Slow products.
- Something to keep memories of life alive.
- Something to sit on.
- The ups and downs of life.
- Tracing the path.
- Unity for direction i.e. Four protrusion becoming one line.
- · Video gaming.

Product suggestions

- Backrest for a chair.
- Book shelf.
- Book(s).
- Car.
- Decorative products.
- Educative books.
- Furniture for use at home which has separate parts for different configurations, in particular for couples.
- Gardening tools.
- Global Positioning System (GPS) gadgets.
- Hand-brakes.
- Hooks.
- Learning aids.
- Logo for mountain shoes.
- Mind games.
- Mountain shoes.
- Shelf for magazines.

- Shelf for toys and books.
- Springy seat.
- Wrappers.

6.3 Symbol three: One head does not go into counsel



Contexts for developing products

- A building for all. A place that accommodates everybody.
- A product that is easy to translate into other cultures about right and wrong.
- A product that many people can use.
- Business products like brief cases, portfolios.
- Collaboration games.
- Communication system.
- Crookedness i.e. not being straightforward.
- Developing or growing together.
- Equality.
- Family-type products.
- Helping children to share ideas.
- Motivating people to use/choose a path.
- Networking system.
- Open source products, E.g. Wikipedia.
- Opportunity (to make life better in spite of obstacles).

- Organization of ideas in the human mind.
- Packaging that surprises the user because its inner section is different from the outer.
- Product for interaction.
- Product that passes from one to another.
- Products for board or council meetings.
- Public transportation.
- Seat for voicing one's opinion instead of a podium.
- Seeing three times better.
- Service free points for societal service. E.g. free calls to promote societal ideas.
- Showing power.
- Tattooing.
- Unisex products.
- Video conferencing.

Product suggestions

- A throne.
- Book cover.
- Book.
- Bottle.
- Buss stop.
- Candle stands.
- Desk for giving a speech.
- Door knobs.
- Emblems on doors.
- Eye glasses.
- Jackets and uniforms.
- Medallion.
- Meeting equipment i.e. Video conferencing facilities.

- Mobile phone.
- Money or cash.
- Package for cigarette.
- Pens and office equipment.
- Podium.
- Public address system.
- Wine bottle.

7.0 RESULTS:

DESIGN AND CONSTRUCTION OF A SEAT WITH FOUNDATION IN ONE OF THE CONTEXTS IDENTIFIED

This segment was originally planned to be a direct part of Chapter Four, however, due to its expansiveness it became necessary to separate it as an individual chapter. It deals with the following:

- a. Chosen symbol and context;
- b. Idea visualization sketches, initial selected ideas and why, and three-dimensional models using design software;
- c. Mock-up models and user interaction;
- d. Comments gathered.

7.1 Chosen symbol and context of use



The researcher chose the *Nkonsonkonson* i.e. Link or chain.

Please refer to Chapter 4, section 4.2.1.

Key words summing up the socio-cultural context and meaning are:

- Human relations,
- Interdependence,
- Interconnectedness or
 Interlinked-ness

- Intertwining,
- Relationship,
- Responsibility, and

Unity,

Context of use

Group or family get-together (an informal gathering which is usually indoors) i.e. a social occasion, often in a person's home where people interact.

7.2 Idea visualization

7.2.1 Sketches

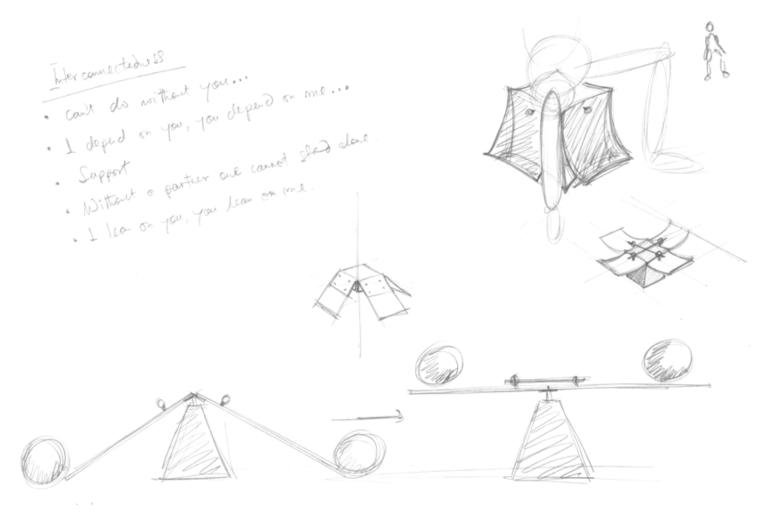


Figure 7.1 Sketches – sheet 1

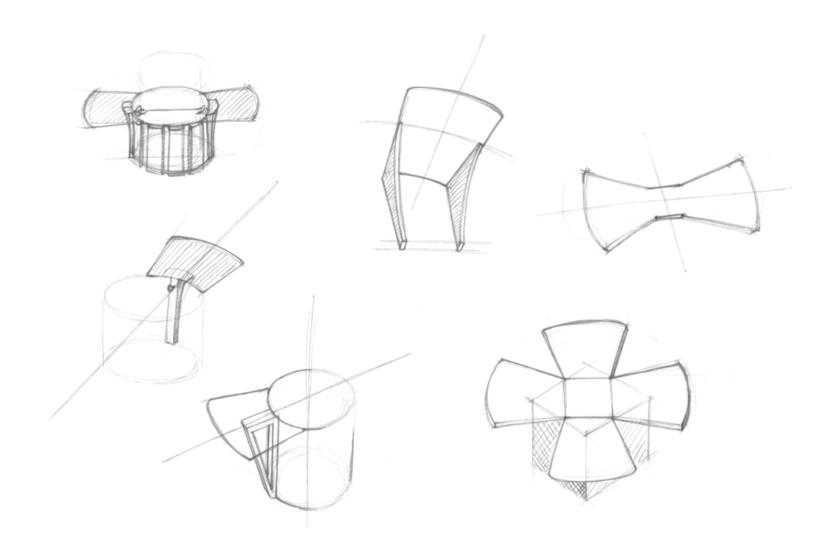


Figure 7.2 Sketches – sheet 2

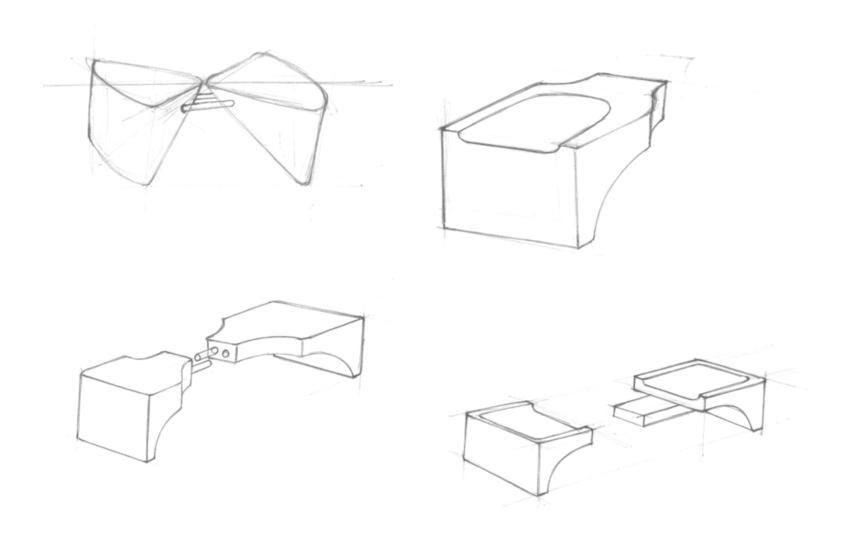


Figure 7.3 Sketches – sheet 3

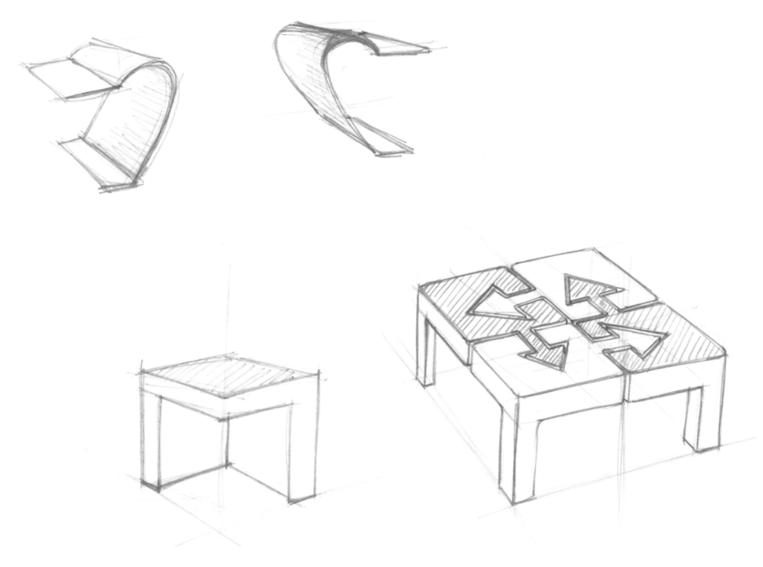


Figure 7.4 Sketches – sheet 4

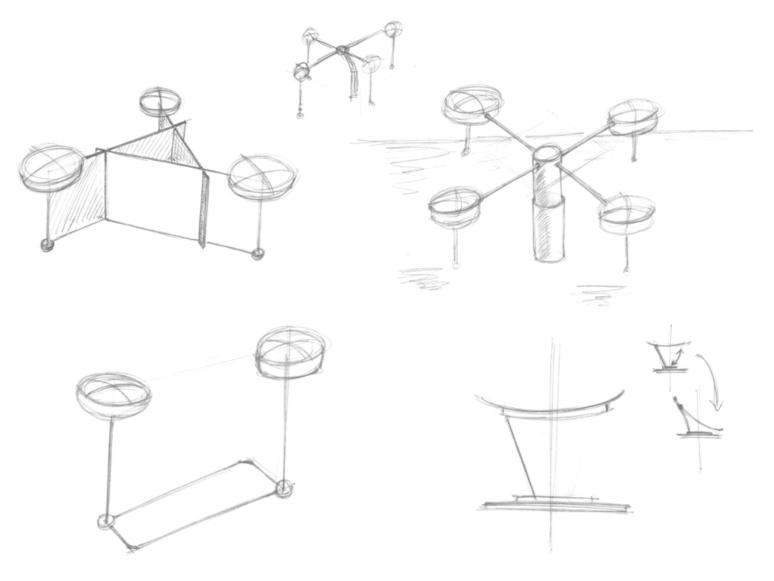


Figure 7.5 Sketches – sheet 5

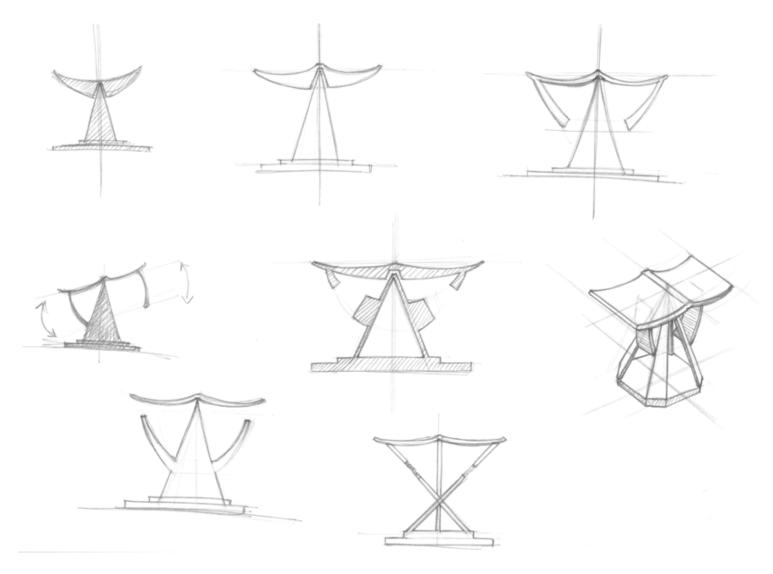


Figure 7.6 Sketches – sheet 6

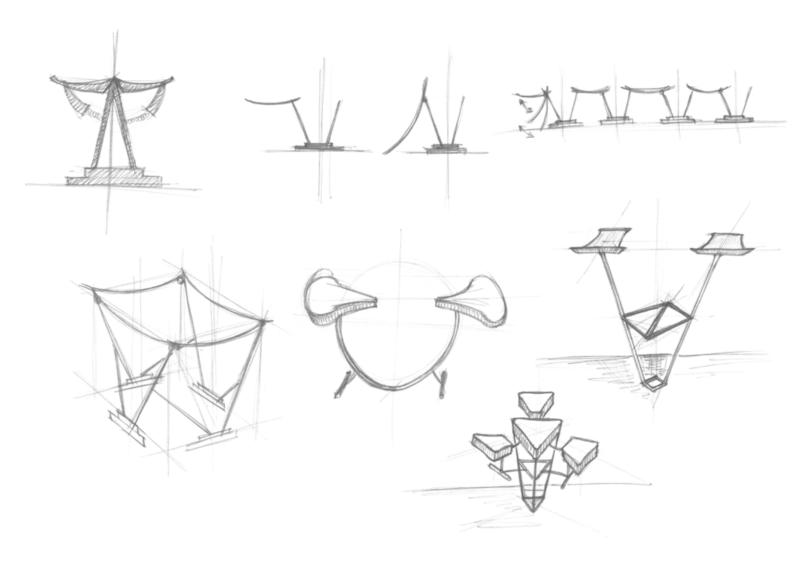


Figure 7.7 Sketches – sheet 7

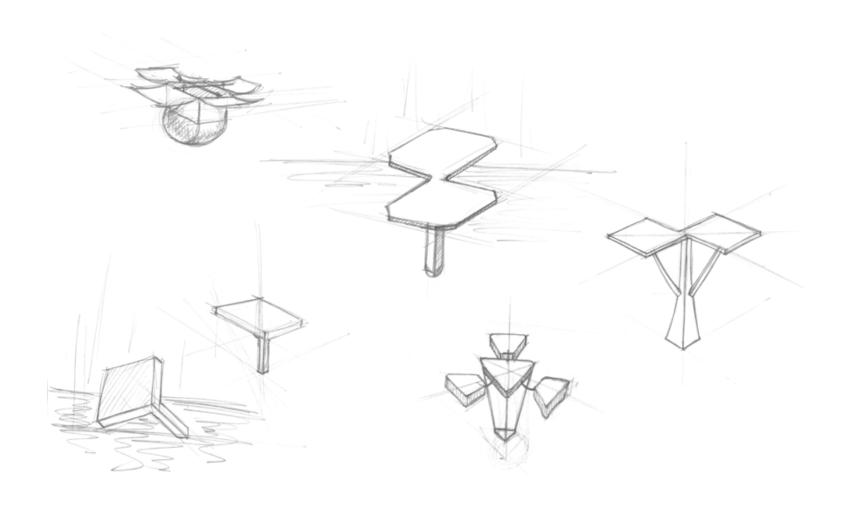


Figure 7.8 Sketches – sheet 8

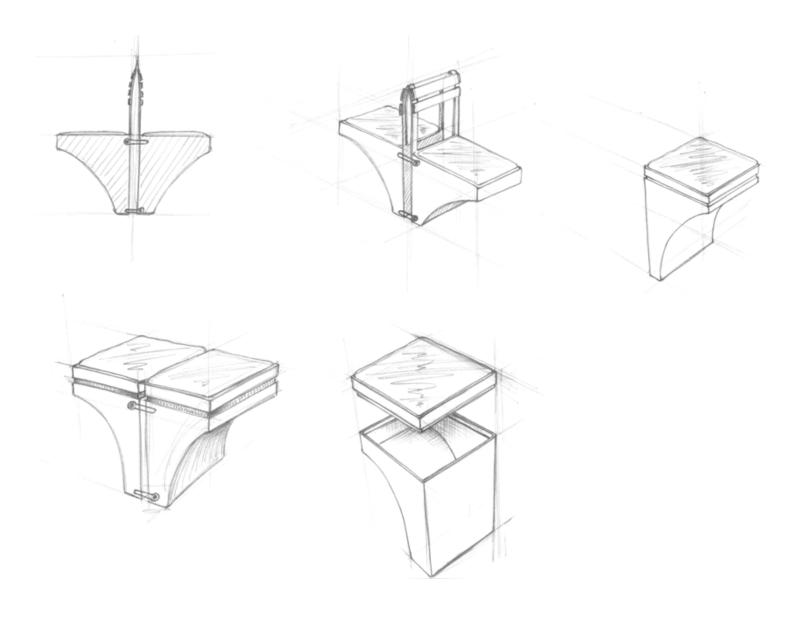


Figure 7.9 Sketches – sheet 9

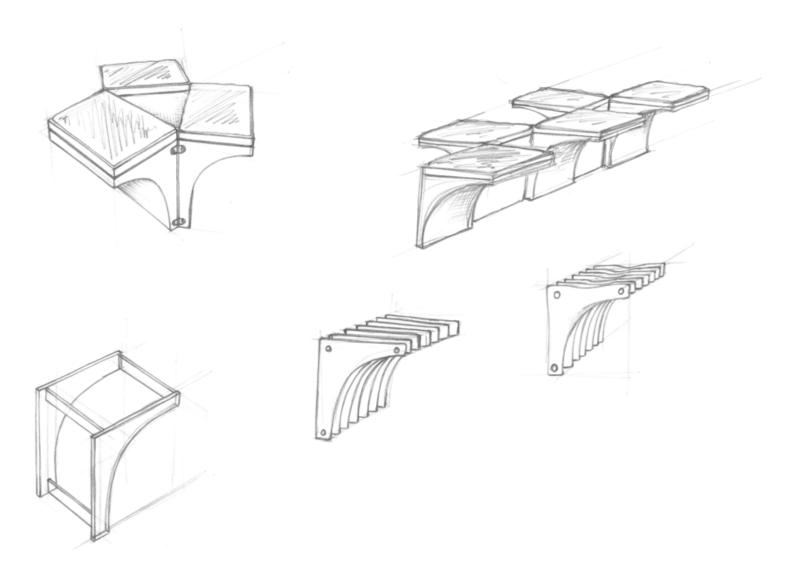


Figure 7.10 Sketches – sheet 10

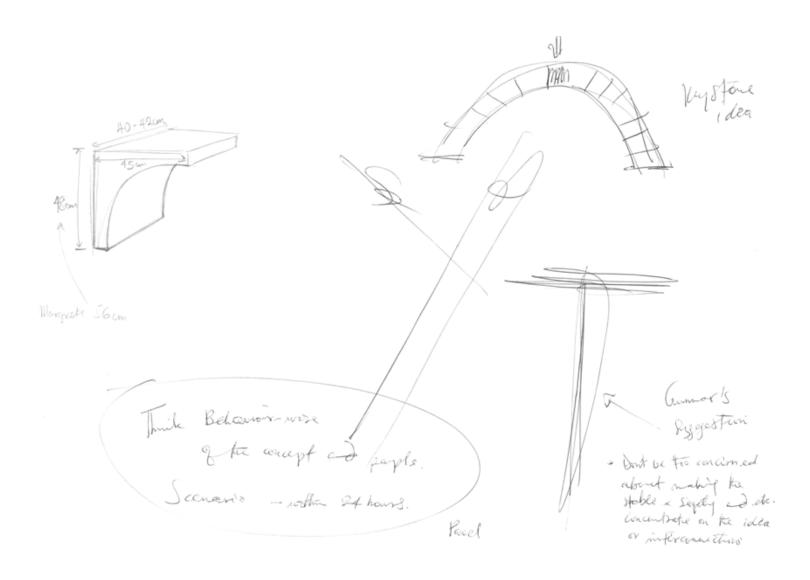


Figure 7.11 Sketches – sheet 11

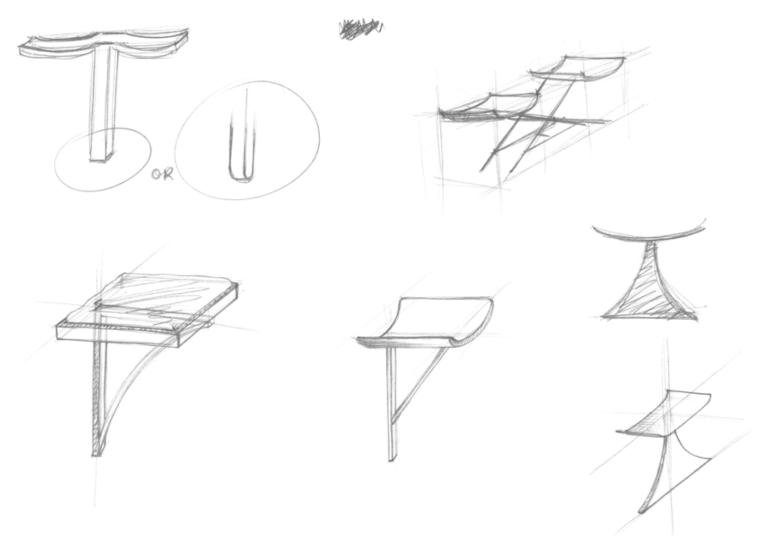


Figure 7.12 Sketches – sheet 12

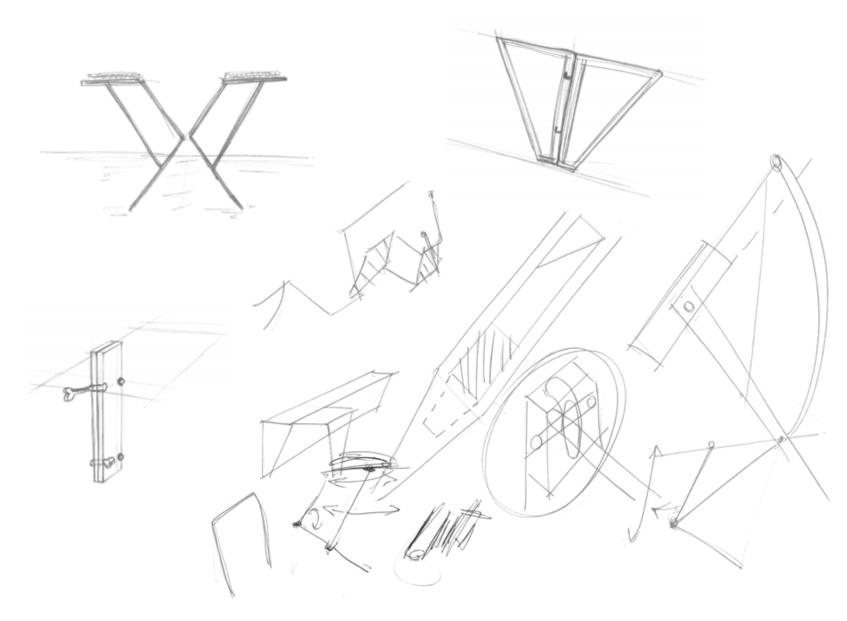


Figure 7.13 Sketches – sheet 13

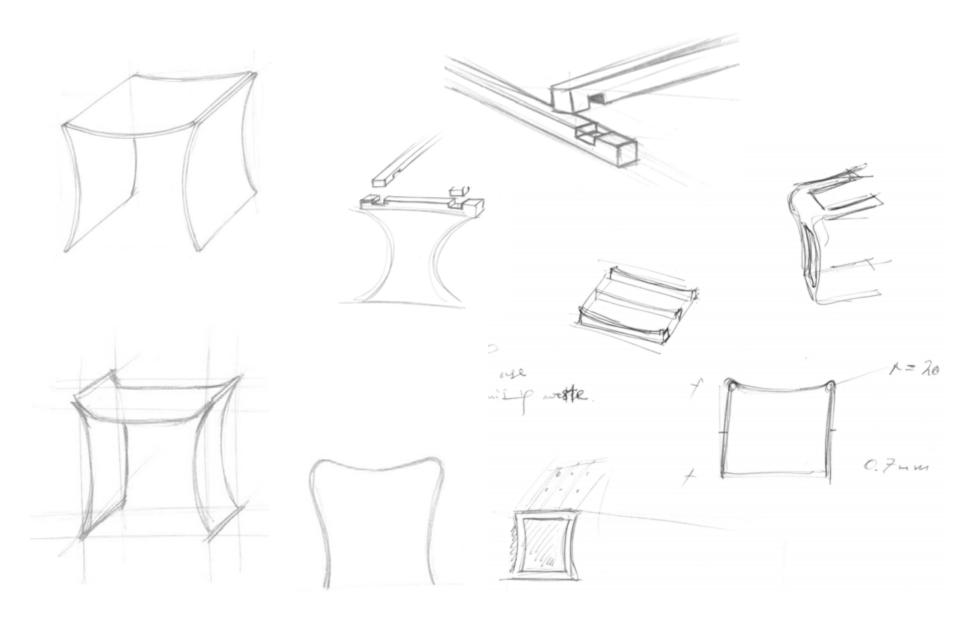


Figure 7.14 Sketches – sheet 14

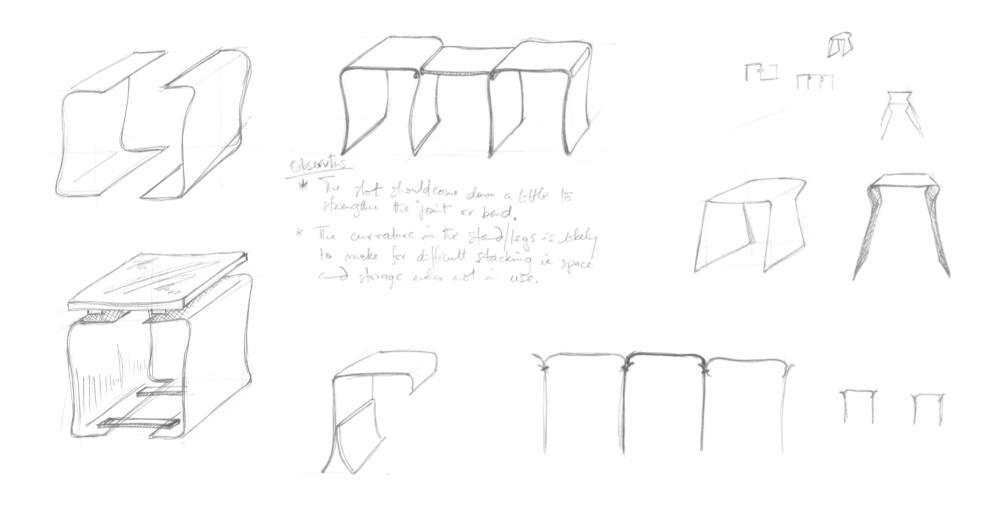


Figure 7.15 Sketches – sheet 15

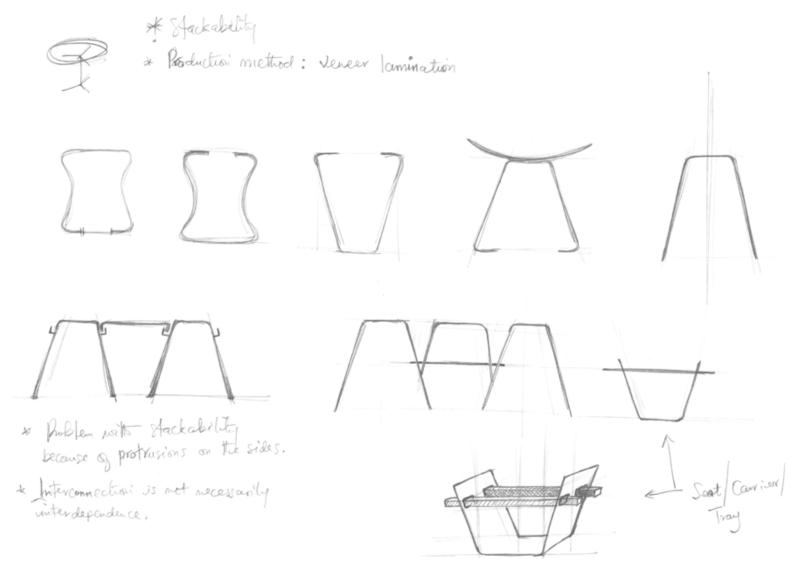


Figure 7.16 Sketches – sheet 16

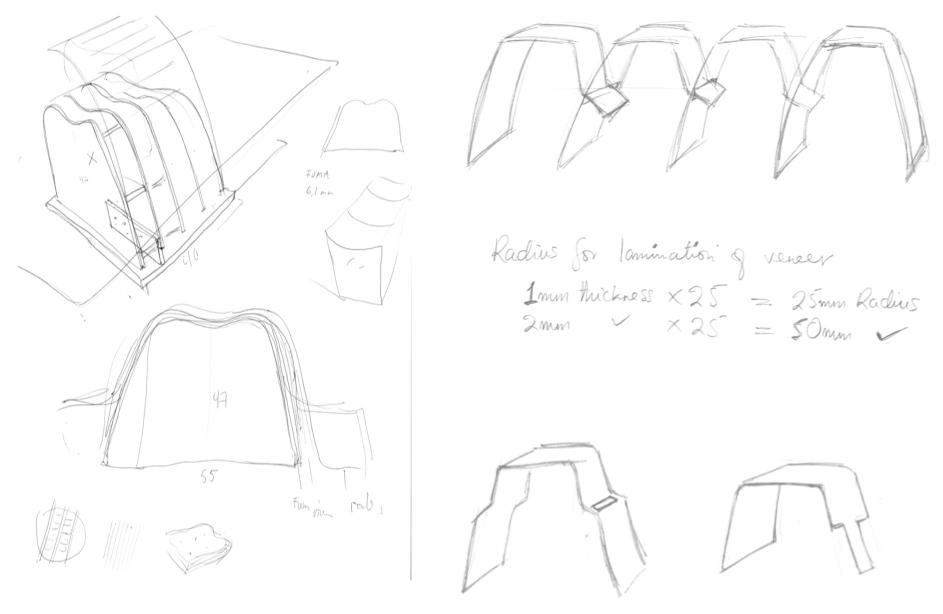


Figure 7.17 Sketches – sheet 17

7.2.2 Initial selected ideas and why

First selection (CWM 1 – Connect with me 1)

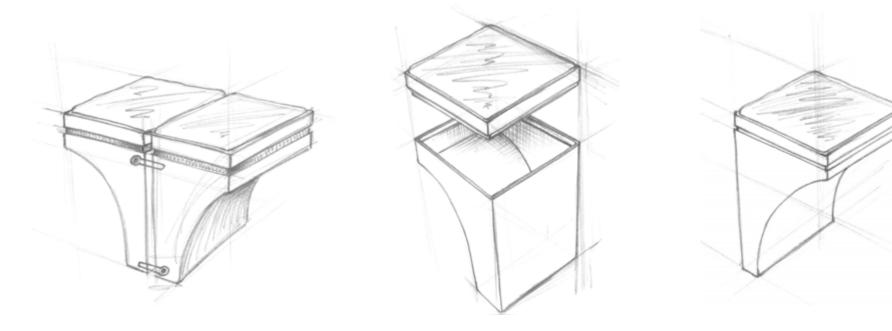


Figure 7.18 CWM 1 (Connect with me 1).

Reason

CWM 1 was picked because of its simplicity. It easily offers the opportunity to connect with another person while having inner compartments of storage of small items.

Second selection (CWM 2 – Connect with me 2)



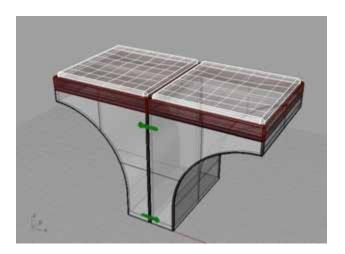
Figure 7.19 CWM 2 (Connect with me 2).

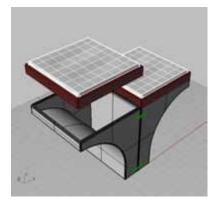
Reason

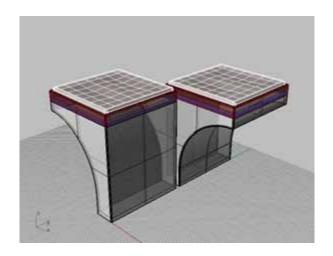
CWM 2 has the touch of a traditional stool from Ghana in terms of form. It has the unique strategy of connecting with another person sideways. The process of connection is such that it takes three of the products to create two seats, making room for a third person only when there is a fourth of the product. This makes the interconnectedness seemingly endless.

7.2.3 Three-dimensional models using design software

CWM 1 (Connect with me 1)







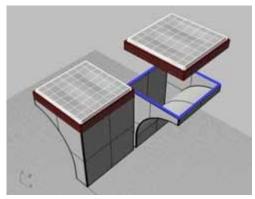
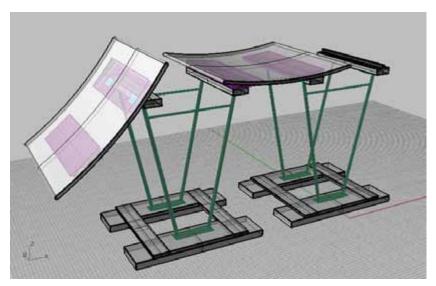
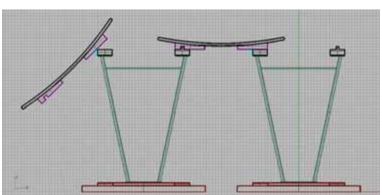


Figure 7.20 Three-dimensional version of CWM 1.

CWM 2 (Connect with me 2)





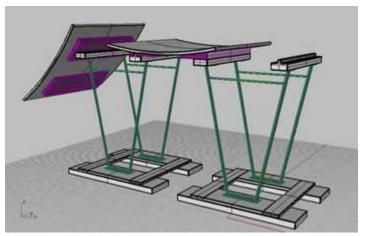


Figure 7.21 Three-dimensional model of CWM 2.

7.3 Mock-up models and user interaction



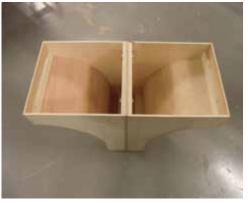














Figure 7.22 Mock-up and user interaction – Part 1.

























Figure 7.23 Mock-up and user interaction – Part 2.























Figure 7.24 Mock-up and user interaction – Part 3.







Figure 7.25 Mock-up and user interaction – Part 4.







Figure 7.26 Mock-up and user interaction – Part 5.











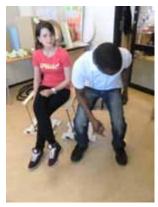






Figure 7.27 Mock-up and user interaction – Part 6.

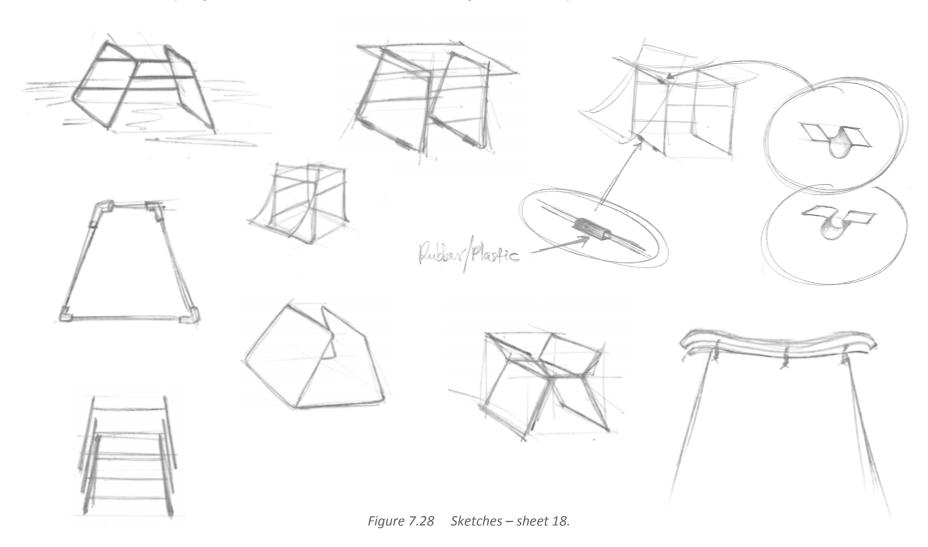
7.4 Observations and comments

- a. The seat can lie on the side, before use, to show that two people ought to stay connected to use it. Hence the target should be developing ideas that make the seat more unstable. (Some student-colleagues and some staff at the Faculty).
- b. Humour (tipping and almost falling with or off the seat) can be integrated as a sign to inform people that the seat is meant for two persons. This is likely to prevent injury in an attempt to use the seat alone. (Per Anners Architect on teaching practice at the Faculty of Product Design, HiAk). The seat can tilt to an angle and stop, not falling down a safety measure. A sign can be displayed at the place or area where the seats are to be used.
- c. The storage section can be eliminated to further reduce weight, if need be. (Personal observation).
- d. The seat can be made mobile i.e. easy to move around and carry along. (Supervisor).

- a. The arrangement for connection can be organized in a circular fashion so that the last person connects to the first, completing a circle of friends or family. This means the circle can have a given minimum number of seats to start with. (A colleague).
- b. The seating section should not be necessarily fastened to the stands. (My observation).

7.5 Final model

7.5.1 Sketches (a hybrid of interconnection and ability to sit alone)



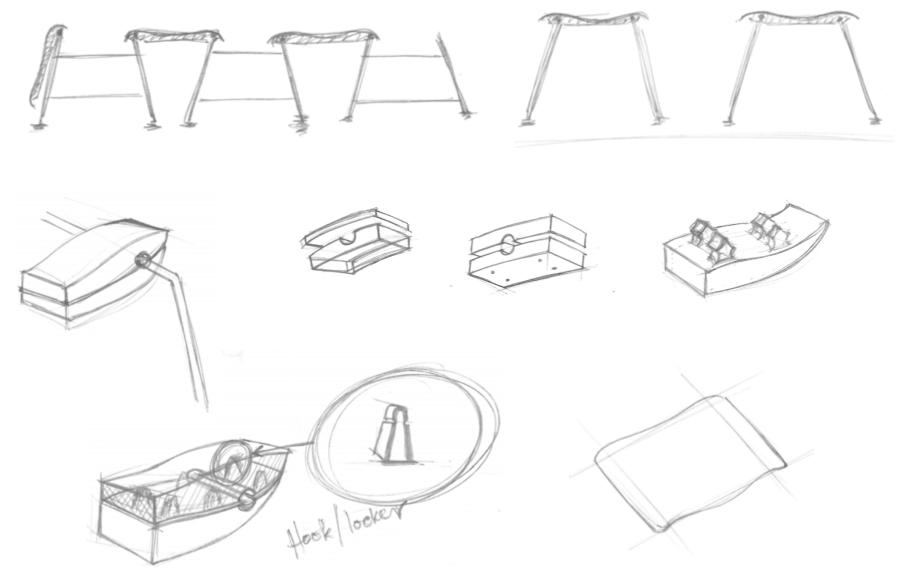


Figure 7.29 Sketches – sheet 19.

7.5.2 Virtual / 3-D model









Figure 7.30 Final virtual model – individual seat.





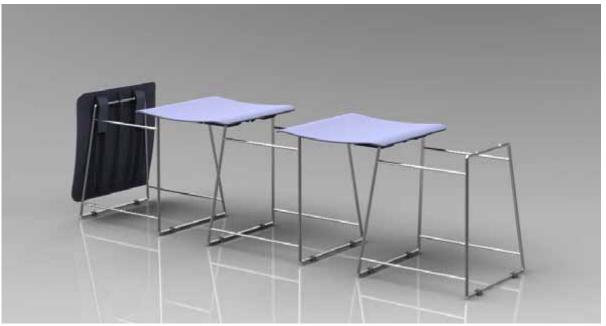
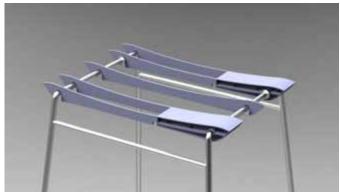




Figure 7.31 Final virtual model – Interconnection.



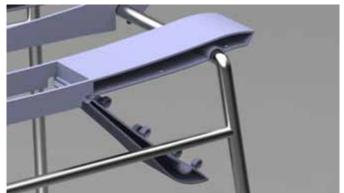






Figure 7.32 Final virtual model – Parts & stacking.

7.5.3 Prototype



Figure 7.33 Building the prototype.













Figure 7.34 The prototype.

8.0 REFLECTIONS

The researcher realizes that a shorter, but in-depth or accurate, process could have been followed compared with the process he used. Instead of identifying a number of traditional symbols in Ghana, making a selection of a few based on interest, analyzing the selected symbols for meaning and socio-cultural contexts, identifying product possibilities based on the meanings and socio-cultural contexts, designing and constructing a seat with foundation in one of the contexts identified; and writing a report documenting the process, he could have straightaway identified a symbol, studied its socio-cultural context, and designed a product i.e. seat. The benefit of this would have been a straightforward design process.

Secondly, interconnectedness with an eye on globalization for developing products is an interesting area that can be further explored. The researcher realizes he thought beyond what he initially imagined in line with the selected symbols to incorporate what others, of different nationalities, thought and felt about the same symbols. Globalization should inform almost everything that designers and humans do on planet Earth.

Cultural symbols and values are a rich source of philosophical ideas for design work. Market value for products can be generated from such philosophies.

9.0 CONCLUSION AND RECOMMENDATIONS

9.1 Conclusion to the study

This study set out to identify a number of traditional symbols in Ghana, make a selection of a few based on interest, analyze the selected symbols for meaning and socio-cultural contexts, identify product possibilities based on the meanings and socio-cultural contexts, design and construct a seat with foundation in one of the contexts identified; and write a report documenting the process. To this end, two propositions were made that (i) analysis of traditional symbols from Ghana provides product ideas; and (ii) traditional symbols from Ghana can provide inspiration for creating a seat.

Six groups of traditional symbols were identified. Of these, two groups were used: *adinkra* and linguist staff symbols. Altogether, three symbols were selected for meaning and socio-cultural contexts, mainly upon interest i.e. working with the idea of interconnectedness (globalization) on one hand, and creativity (design education) on the other. Of these three, one was chosen (Link or chain: *Nkɔnsɔnkɔnsɔn*), and used as basis for developing the seat.

The analysis of the selected symbols provided varied product possibilities and inspiration which answered the propositions. Indeed, the application of the meanings from the chosen symbol brought motivation to develop a seat that facilitates interconnectedness among friends and family members who are having an informal gathering, especially at home or its environs. To this end the second proposition was achieved.

9.2 Recommendations for further research

The following are potential areas for further research:

- Seat(s) based on interconnectedness that are shaped in a circular fashion so that the last connects to the first, completing a circle of friends or family members.
- Mobile and easy-to-carry seating device that facilitates family and friends socialization.
- Seating devices based on two/three heads are better than one or twists and turns.

BIBLIOGRAPHY

Books

Cupchik, G. C., & Hilscher, M. C. (2008). Holistic Perspectives on the Design of Experience. In H. N. J. Schifferstein & P. Hekkert (Eds.), *Product Experience* (pp. 241-255). Delft: Elsevier Ltd.

Eriksen, T. H. (2008). Introduction. Globalization: Key Concepts (pp. 1-14). Oxford, New York: Berg.

Yin, R. K. (2009). Introduction: How to Know Whether and When to Use Case Studies as a Research Method. *Case Study Research: Design and Methods* (4th ed., Vol. 5, pp. 3-23). California: SAGE Publications, Inc.

Yin, R. K. (2009). What are the Potential Single-Case Designs (Types 1 and 2)?: Rationale for single-case designs *Case Study Research: Design and Methods* (4th ed., Vol. 5, pp. 47-53). California: SAGE Publications, Inc.

Research Papers

Asmah, A. E. (2010). *Symbolism in Asante Traditional Textiles*. Kwame Nkrumah University of Science and Technology, Kumasi.

Asmah, A. E. (2011). Traditional symbols. In F. A. Clement (Ed.). Kumasi.

Dzobo, N. K. (n. d.). Chapter 4: African symbols and proverbs as source of knowledge and truth.

Glover, E. A. (1992a). Adinkra Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

Glover, E. A. (1992). Stools Symbolism (2nd ed.). Kumasi, Ghana: University of Science and Technology.

Hekkert, P. P. M., & van Dijk, M. (2001). Designing from Context: Foundations and Applications of the ViP Approach. In P. Lloyd & H. Christiaans (Eds.), *Designing in context: Proceedings of Design and Thinking Research Symposium 5*. Delft, The Netherlands.

Sanders, E., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4, 5-18.

Websites

GhanaNation.com. (2009-2010). What Proverbs are and Their Significance in Ghanaian Languages. from http://content.ghananation.com/templates/?a=89

Glover, A. (2002-2011). The Linguist. Retrieved January 31, 2011, from http://www.arcghana.org/linguist.htm

Inheritance SkinCare LLC. (2004). The Baobab Tree. Retrieved January 28, 2011, from http://www.inheritanceskincare.com/Baobab.html

Oxford Advanced Learner's Dictionary. (2010). Seat. Retrieved January 13, 2011, from http://www.oxfordadvancedlearnersdictionary.com/dictionary/seat

Webster's 1913 Dictionary. Seat. Retrieved February 13, 2011, from http://www.webster-dictionary.org/definition/seat

WordNet. (2011). Seat. Retrieved February 12, 2011, from http://wordnetweb.princeton.edu/perl/webwn?s=seat

One of the very rms in address chicken but it does "Adinkra aduru" (Adinkra Medicine), the stuff used in the stamping process, is prepared by being the bark of "Bade" begather with teen slage. Originally the printing was done on the cotten place bying or the ground. Today raised platherns with sack covering act as the printing litch. The designs, out on places of calibbarh with pleces at leased attached for handling, are disposed into the stuff, then stamped ento the cioth. Adriktra clothes are not meant in be washed. divisions dos I net enus abooder Talons of t shared on t Whatehu deposing). The coro the plan doth tighter done. 13 nan tia ba, Teads upon it Raprasa Double 33 na ta. pot). consepta na sa. nas and adv Alterna (The heart), " heart) and take patient patiency and enduces Nkylnkylm (Ohar Olanging anasal), p Pa gya Do strika This is said to rep H Cornerson D 15 8 Gyanes Thin to as Gyanes, a *** Owners A symbol 88 X ම ම 0E 8 * S 9 Ŧ 3+++ shome mirana. **III** 8 Santa Santa Santa Santa Odenkyem da annheme naso, e The moodde lives t at, not water. Mpusmum (Not) Five Note of Nation Nationally and National ISM Septem This is a prevent ADINKRA CLOTH ADINKR 1 N 器 混 88 SYMBOL 88 \triangleleft 0 12 E MEd., PhD. FRSA, Coll the orga Ti stomach yet they fight piece from I arters yeareby full the good to retence and hypo-Party. Abother version of A Usike No.9, this one is us itself for profess. 15 2= Sankela, Another could be a heoken p dasign (No.17). Bese kaka (a bun Bese (colland)) Northern (thes. Menara Krado (p. Symbolising supor # 8 Tradition has it that Adiniva, a tembors king of Gyaman (now Nory Coast), angreded the Assinthence, Earliet, by Hydro to casty, ingreded the Assinthence, Earliet, by Hydro to casy the Goldon Stock. Assints was defeated and stain in an ensuring war. It has been suppossed that the art of Assints came from Gyaman. It is also significant that Adiniva means trainwel or good-bye, hence the use of the special cloth or unersi occasions (layle), to say good-bye to the debastic. 88888 888 888 8 88 8 **(** 99 8 OD) ш Ahana ja stale setemonieli sword), "Akuleena kuniel kir a, wobo a lena kye satiohena." The reliefug goal warnier always has a re sword alf wat. Hecopolision of gallerity. "And been a, entrale gra, solta abere loca." Sectoura-less does not those forty eyou would see my tack all red. (alders of the pore head of Êŝ 2 22 Adhikahen (Adhika king), Chief of all the adrika designs basis of admirs printing. Cys Nyams (second Cod), Symbol of the emmpotence of Cod. of the state of th Aka-ben (war hors), version of the war hors or call to arms. Wave is a hardwood of the significance in Allan anthea (in the K ing has left of 1 Kantle ne Akwam 178.010 mmpam" p Sankota (vetum and ti Se eq seavilina estali It in ne taboo to mium toget. You can alwayn Some Akans believ Some Akans believ inhabits a younger AD BOTO WO Donne (drum). This is more like design No.43. Oursets (Mo Oursets man It takes the o Apr Dis Ohere The K M * X 1 0 X 8 8 8 83 8 * 3

APPENDIX 2:

STOOL SYMBOLS



MAN GANI summer and a season that a steel with a steel when he surries (in recent times than then then then the bests bits a child).

OHI-TE-UNIONO GAM: Someone-site-co-scheon else stool. A proverbil stool used exclusively by top chiefs usually at state ceremonies.

用













MITURE SHAP: The porcupine atool. The porcupine is the Asante State emblem. This is also a stool used exclusively by the Asanteheme.



ouald cake The sum stool.
Also proverbile, and
special of Alickes appointed
too. This stool may be used by
both seise.

off FA AIA GNA: Half of me is finished (half oy clan is dead) This is a stool used exclusively by females.

MANDAU GMA: The cress stool. Caly with the persission of the fauntience can someone alse use THIS STOOL. The dealer is exclusively for him.

MERK GAL! The smalet stool. The decirative sides represent the smalet ('sabe'), hence the name 'nonbe goa'.

EMADO GWA! The pallock stool. Used by chaffs and linguishs. It has a close resemblance to the Mangoraphene's stool.

The mass fames stool, of course, is the well-vish one stool. The Golden Stool, which is to have been conjured from the beavers by In Amolge, chief private of Ores Total the these

Manual Change

INT MAA ARMS GAA: Develors: is not permanent in the worth. Proverfall. There are both good and bad titmes. It is also the Indensialment stool. 対画包 CWAN ANYEST GRA: The ladder of dea Proventhal. We shall all go up the 71 ladder of death. It is also the rated; of the ruler of Massw.

MKONTA GWA: 'Mkonta' is the Y-shaped stick used for cataguits. It is the atool for the head of the stool carriers.

E. Ablade Glover, M.Ed., Fb.D.

University of Science & The Commant, Charm, West Africe.

E

WENCHINESS GWA: Stool for Wenchihers. Jesembles the Marpozghere stool (38).

ADONTHHERM GAL: Stool for the Adontinhers. (This may also change). It is also like the Nomponders stool which is a reverse of the Carmer Stools.



USEND GWA: The Lempard atomits used only by the Assartehen signifying his power and infil





CRO GWA: The sighant stool. no used exclusively by the sattehene. Agyine who uses it allenges his sutherity.

STOOLS

This chart shows only a salection of some the sext futerating forms and shapes that are wealishe, brinc, this, As, only, to, distribute the ambject to the student who separes to delse in traditional Ghanaian symbolium.

There are as many stools as there are and the specia are infinite.

NAMED SAL Brakents stool Brakents was a chief of Abyes The stool has the systempow symbol (2%),

ARRECTA GAA: Another Queen mother stoni. There may be many since every queen moth adopts her own stoni design

CENTRIFIED GRA: Stool for the Standardern, Minney was List tow Stonfo Acokye was setting (toga-rith Somman) that falled,

JUAGONIPE CMA: Strat for the Juanhens. It has the "nkosta design (29) with a straight Lanzant of circular aldes.

X

OAD FORCES GEAL Frowerhial The smake climbing the palm-tree. Attempting the impossible.

SPLONGERS GAN: The vindhouse sto The engraved designs appear also temples. May be used by either a

图目

MANA CMA: The two penny stock; also known as the poor man's sto it is simply carved and cost two pence is the piden days.

SIKA CHA KOFI

SAKTI DUA MUNDO GWA: The single centre support stock. Used exclusively by the priests and priestess on ceremonial occasions.

EMPTONIONOMY MEMBER CAMP The divided circular rainf stool.

ANATHREE CAN. The errocalite scott, The tree has a fight so a thrine support, hence it belongs to the principlood.

ANUTANO ALLOS GHA: The kang of empoweder stool.

MINISTA GHA: The stool of the rider of Gressia. Allohas features a lot in anate wythology. He might have given such as a view burst.

ALLOHAS GAM: Tables features a lot in anate wythology. He might have given supposed. The should then such the same fuses are stool. The same fuses are stool.

ALLOHAS GAM: Tables features a lot in same quite a headstan tellore his across with the drines lying in that sales. It resembles a down demonstrate a down demonstr

MANGONNIESS GMA: The stool of the Mangonghere, who depathses in the Absence of the Assatzhene. Its amendom featured will in the Assatze



TATCHESS GWA: Taynhese's stori. Sather like the 'nymnapow' (%) without the middle knot. Elimine. Elim, a village if miles to Komeal, Penture prominently is Assate bistory.

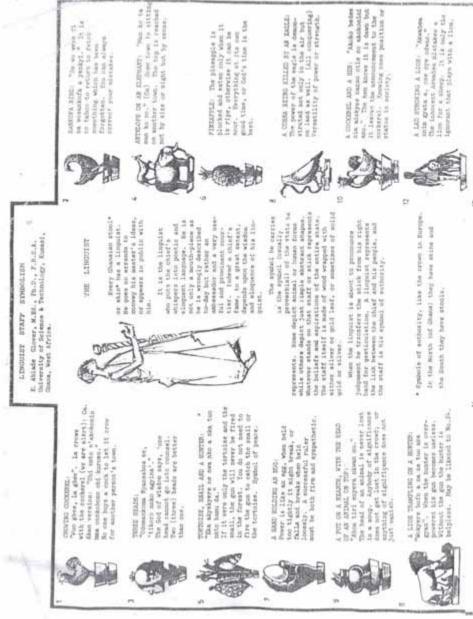


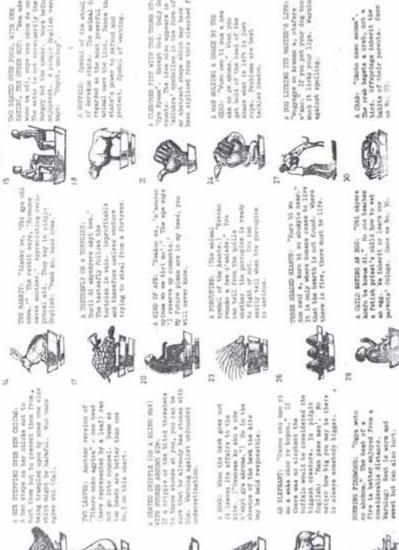


LINGUIST STAFF SYMBOLS

3

APPENDIX





177

APPENDIX 4

IMPRESSIONS AND ASSOCIATIONS TO THE THREE SYMBOLS

Symbol one: Link or chain

Bean. Lungs.

Birth. Moustache.

Buffalo horns. Mystical.

Butterfly. Nice coffee for the morning.

Buttocks. Nose of a big cow.

Calmness. Nose.

Coffee beans. Organic form.

Cut from a plant. Roundness.

Dividing of a cell in a body. Sea horse(s).

Dynamism. Sliced apple (two halves).

Ears. Spectacles.

Eyes. Static - two parts facing each other.

Fetus. Symmetry.

Heart. Twins -womb with fetus.

Human kidneys. Two cells dividing.

Larvae. Two people standing in front of each other.

Living creature in the sea. X-ray of the brain.

Symbol two: Twists and turns

Alphabet(s).	Old Chinese character.
Ancient symbols - Maya clan.	One thing to another.
Ancient writing.	Organic.
Asian.	River.
Aztec clan.	Short words: Live, Love, We, Me
Bird.	Small Chinese dragon.
Border, Barricade.	Snake (with a crown).
Connection to foundation and what springs up on it.	Something African.
Don't give up in life.	Something twisting.
Egyptian tombs.	South American.
Expression.	Texts.
Feet and toes.	Unity in the case of 'we'.
Gang symbol.	
Hall-way.	
Life is never direct.	
Logo for a club.	
Masculine.	
Maze.	
Millipede.	

Symbol three: One head does not go into counsel

Africanity. Look of anger.

All-seeing. Man and woman are one i.e. one source.

Anger. Multiple personality.

Authority / Boss. Not for children.

Chess marble. Not playful.

Sculpture / Concrete object. Pots growing cactus heads.

Critical thinking. Power.

Cultures. Scary.

Dead heads. Small hand-made sculpture.

Different attitudes, perspectives, opinions. Small tree in a flower pot.

Fear and Discomfort. Speech.

Flight balloon. Statue.

Freaky – three heads combined. Three people.

God or supreme being. Three-dimensional.

Growing heads. Three-in-one.

Human heads. Asian fighters e.g. Samurai.

Joker. Up on a pedestal.

Knowledge. Voodoo potion.

Leader. Warrior – chopping off heads of enemies.

Learning. Wine cock.

APPENDIX 5

Symbol one: Link or chain

NAMES ASSIGNED TO THE THREE SYMBOLS BY RESPONDENTS

Creation.	Sounds.
Dominion.	Testicles.
Evolution.	The butt print
Feelings.	Womby.
Hearing.	
Horse.	
Human cells.	
Humanity.	
Infinity.	
Male-female.	
Opposites.	
Procreation.	
Relaxation.	
Seed.	

Symbol two: Twists and turns

Ancient (the past). Openness.

Continuity. Options.

Foundation. River on the map.

Intestines. Snake.

Labyrinth. The animal.

Mr. Wiggle. The Bible.

Neutrality. The journey.

No way out. The path.

Symbol three: One head does not go into counsel

Authority. Man of all seasons.

Cactus heads. Power.

Connection. The head.

Different ideas for life.

The three faces of communism.

Dual personality. The trinity.

Equality of the genders. Thoughtfulness.

Honesty. Three brains in one head.

Hypocrite. Tri-top.

Liars - three faces.

APPENDIX 6 ADDITIONAL 3-DIMENSIONAL DESIGN POSSIBILITIES FOR THE SEAT

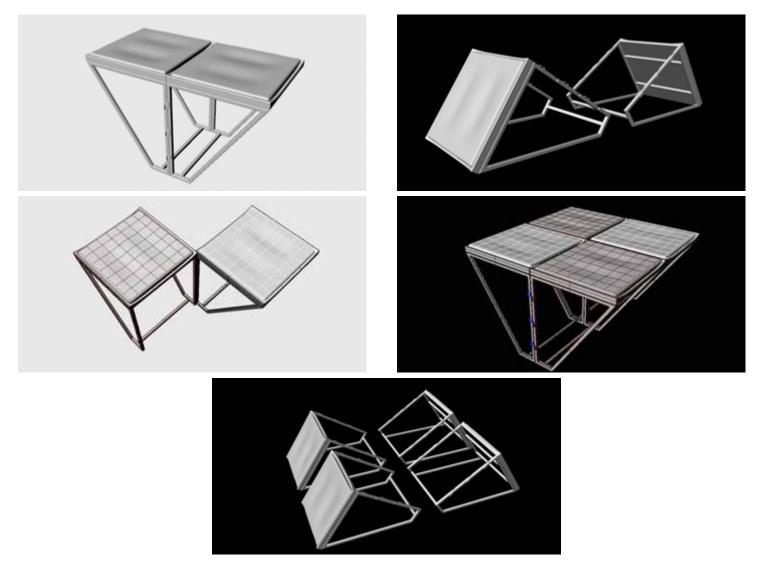


Figure A04 Additional three-dimensional possibilities – Part 1.

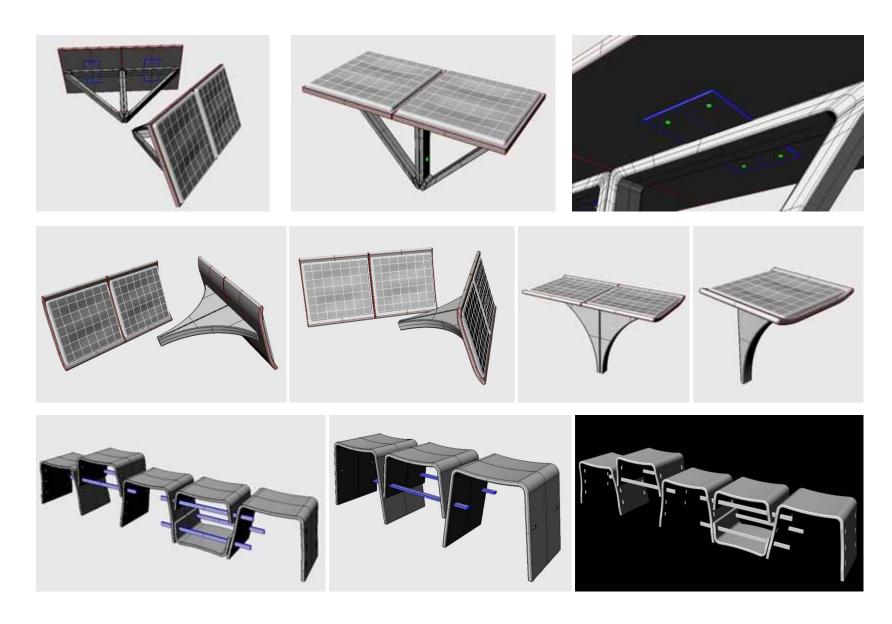


Figure A05 Additional three-dimensional possibilities – Part 2.

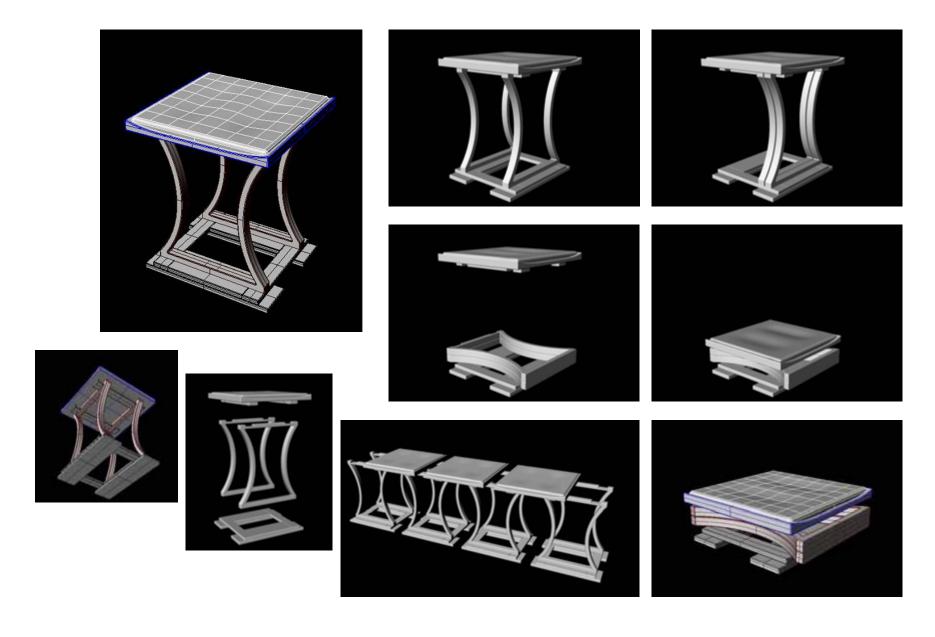


Figure A06 Additional three-dimensional possibilities – Part 3.



Figure A07 Additional three-dimensional possibilities – Part 4.



Figure A08 Additional three-dimensional possibilities – Part 5.

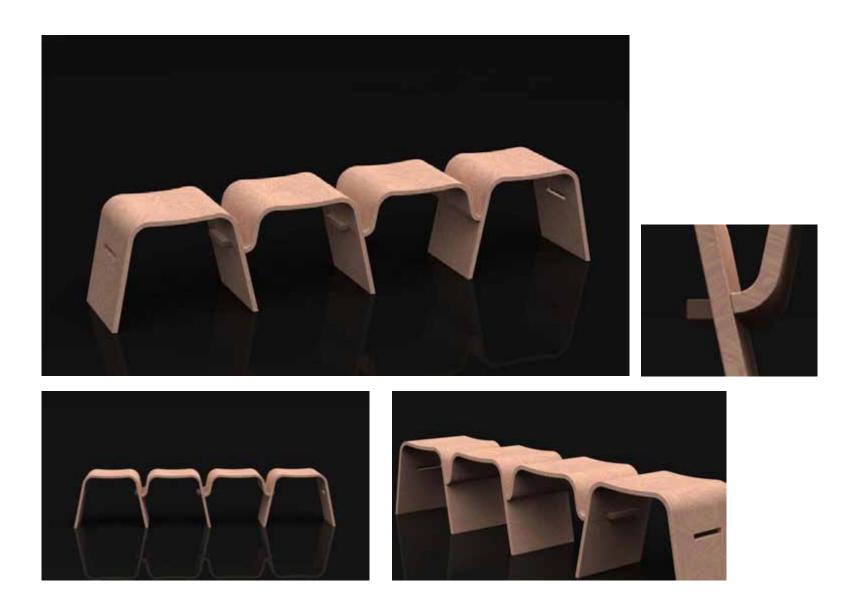


Figure A09 Additional three-dimensional possibilities – Part 6.

APPENDIX 7: THE TIME TABLE

