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Art of kente: history, designs, and drafts

Rhonda D. Crosman

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THE ART OF KENTE: HISTORY,
DESIGNS, AND DRAFTS

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

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ABSTRACT


Kente is a traditional ceremonial strip-woven cloth made by the Asante and Ewe peoples of Ghana and Togo. This thesis examined the history, patterns, design elements, symbolism, and evolutionary changes of the kente textile tradition. Basic weaving information, illustrations, and color photographs necessary for the understanding of kente were provided. The thesis also analyzed weaving drafts for the creation of kente-like cloth on a contemporary Western style floor loom.
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CHAPTER I

INTRODUCTION

Art expresses both the tradition and aspiration of a people, what they have experienced in the past and what they consider desirable for the present and the future. (Vincent Kofi, Ghanaian artist, as cited in Salm & Falola, 2002, p. 83)

Kente, traditionally a West African ceremonial dress, is a narrow strip-woven cloth made by the Asante and Ewe peoples of Ghana and Togo. Distinct features of the cloth include complex weaving techniques and symbolic patterning woven in the three- to four-inch-wide strips that comprise the textile. The total width of a kente is typically made of 10 to 24 narrow strips that are precisely sewn together to form a larger piece (see Figures 1 and 2). A completed man’s cloth measures approximately 6 or 7 feet in width by 10 to 12 feet in length. Kente is worn by men in a Roman toga fashion with one end brought up and over the left shoulder (see Figure 3). Women usually wear 2 smaller cloths, an upper wrap or shawl and a lower skirt wrap, of various sizes created from 4 to 12 strips (Dennis, 2004). Dating back to the late 17th century, kente originally was a prestigious textile worn exclusively by royalty, privileged chiefs, and wealthy leaders on special occasions. “Over the past one hundred years the exclusivity has relaxed and fine kente may now be worn by anyone who can afford it” (Ross, 2002, p. 190).
Figure 1. Oyokoman (one of the oldest Asante kente patterns) woven with brightly colored green and gold strips on a maroon background and originally could only be used by royalty. From Woven Splendor: Kente Cloths from West Africa by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.
Figure 2. Distinct feature of Ewe kente is the use of representational motifs such as drums, shields, or stools woven in the cloths and worn at ceremonial gatherings such as marriages, puberty rites, funerals, and festivals. From *Woven Splendor: Kente Cloths from West Africa* by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.
Figure 3. Kente worn in a Roman toga fashion, draped around the body and over one shoulder. Photograph by Gregory Bishopp.

Asante and Ewe kente weavers have predominately oral weaving traditions; the patterns and weaving techniques are verbally handed down through the generations and are not traditionally recorded in a written form. The loom used by kente weavers is referred to by most scholars as a double-heddle loom. Many other textile artists weave on a different type of loom, a floor loom. Artists who work on a floor loom typically use drafts, which are written instructional diagrams informing weavers how to create certain patterns. In my research, sources have shown few written kente drafts. Minimal information is available regarding double-heddle weaving methods and their conversion to techniques that can be used on a floor loom.
This thesis focuses on kente cloth and its unique woven structure. The study researches the art, history, distinct features of kente, and weaving technology of the textile. In addition to providing information about kente cloth, this thesis analyzes self-written drafts and other drafts that provide a foundation for the weaving of kente-like cloth on a contemporary Western style floor loom.

**Kente Art: Overview of Methods and Features**

The weaving methods and design features of kente that developed hundreds of years ago are still in use today by Asante and Ewe weavers. In both cultures these elegant textiles are highly symbolic objects. Each individual cloth, pattern, and motif has a name and specific meaning. The names and meanings are often derived from historical events, famous people, objects, or proverbs (see Figure 4). For example, a proverb associated with the ladder motif is everyone climbs the ladder of death, which means death is inevitable.

Kente weavers use a double-heddle loom to produce a narrow woven strip that can be 200 feet or longer (see Figure 5). The long woven piece is cut at fixed intervals into equal length strips that are then sewn together selvedge to selvedge (edge to edge) to create a larger cloth (see Figures 1 and 2). During the weaving process, sections of symbolic patterns or motifs, carefully chosen by a weaver for a particular piece, are intricately woven into the strip. These sections must be precisely woven and measured by the weaver in order for the strips to fit together properly once they are sewn together. Tradition has dictated that kente is designed and woven by men. Recently, however, this tradition is gradually changing with “women slowly emerging as skilled
weavers despite the powerful social forces operating against them” (Ross & Adu-Agyem, 2008, p. 34).

Figure 4. Fa hia kotwere Agyeman Asante design, meaning to show your poverty to Agyeman or lean on Agyeman, and indicated this ruler would help solve supplicant’s problems. From Wrapped in Pride: Ghanaian Kente and African American Identity (p. 123), by D. H. Ross, 1998, Los Angeles, CA: UCLA Fowler Museum of Cultural History.

The Asante typically weave kente from silk, cotton, or rayon using high-intensity hues of reds, blues, yellows, and greens (see Figures 1 and 5). The motifs in these color-rich textiles are designed and woven using only geometric non-figurative patterns created from diagonal lines, squares, triangles, and other shapes (see Figure 6).
Figure 5. Asante woven narrow-strip showing border design. Photograph by Tom Crosman.

Figure 6. Asante zigzag motif created from diagonal lines. Photograph by Tom Crosman.
Ewe kente is typically less saturated in color than Asante cloths. Ewe kente are generally woven with cotton or rayon using muted browns, blues, oranges, purples, and reds (see Figure 2). Another key characteristic of Ewe kente is the incorporation of figurative motifs such as images of animals, humans, hands, leaves, or other objects that are woven in the cloths (see Figure 7).

Figure 7. Wearer using the Ewe figurative leaf motif (Amagba) design most likely is an herbalist or a spiritualist because leaves and herbs are extensively used in medicines and religious rites. From *Hand-in-Hand Weaving* by Blakhud Research Centre, 2003, http://www.hybertextile.net. Reprinted with permission.

**Kente Art: Brief Historical Background**

The two ethnic groups that have long traditions of weaving kente are the Asante (also spelled Ashanti, Ashante, and Ashantee) peoples of southern and central Ghana and the Ewe peoples of southeastern Ghana and the southwestern part of neighboring Togo (see Figure 8).
Figure 8. Asante and Ewe weaving areas. Adapted from Ghana Location Map, Wikimedia Commons, n.d., http://commons.wikimedia.org/wiki/File:Ghana_location_map.svg
The kente weaving tradition of the Asante developed partly as a result of trade and the demands of royalty to create luxurious cloths for ceremonial purposes. Early historical records show that by the 18th century the Asante, controlling the source of gold in their region, became wealthy through trade with Portuguese, British, Dutch, and other traders.

The kingdom grew powerful because of its rich deposits of gold, and with its military strength conquered several of the surrounding kingdoms. In 1701 the Asante Empire formed a royal political system headed by the first Asantehene (king), Osei Tutu. During this period of prosperity, the Asantehene established special royal weaving centers in order to supply the court with prestigious ceremonial cloths. One of these towns, Bonwire (see Figure 8), located outside the capital city of Kumasi, is still a major kente weaving center. The Asantehene had control of the production, exclusive rights to designs, and complete authority in the distribution of the textiles. In these centers innovative master weavers often worked in silk to produce high quality elaborate textiles, now referred to as kente. Of interest is documentation that during this period colorful silk fabrics obtained through trade were unraveled and rewoven into the cloths. Over the course of the 18th and 19th centuries, Asante kente patterns became increasingly refined and complex.

The history of the Ewe, and of their weaving in particular, is almost non-existent (Adler & Barnard, 1992). The Ewe peoples settled in the Volta delta area of southeastern Ghana beginning in the 16th century (Adler & Barnard, 1992). During this period the Ewe established weaving areas (see Figure 8), which are still in...
existence today at Agbozume (a major textile market) and around the Keta lagoon, around Kpetoe and Kpandu (Gillow, 2003).

Unlike the Asante, the Ewe did not form an autocratic government but developed a chieftain-dominated social structure. The Ewe weavers, unrestricted by weaving regulations of a royal court, were allowed to experiment with designs and could accept commissions from individual patrons. This is explained by Ross (1998) in his book *Wrapped in Pride*:

> Among the Ewe motif-laden cloths or specific patterns are not restricted by royal patronage, as is the case among the Asante. This is probably because the Ewe generally adhere to a non-hierarchical and democratic social structure (despite the existence of the institution of chieftaincy) that permits weavers to experiment with design patterns and clients to commission the cloths of their choice. (p. 138)

Although the Ewe people have a considerably different background than the Asante, it is important to note that there has been a long history of contact between the Asante and the Ewe. Through trade and conquests, it is believed exchanges of ideas and knowledge between the two kente weaving traditions have taken place. Although the textiles of these two groups are woven on the same type of double-heddle loom and are similar in certain respects, there are distinct differences between Ewe kente cloth and Asante kente cloth addressed in Chapter IV.

For centuries kente cloth has not only been used for personal adornment by the Asante and Ewe but as a powerful medium of expression. As a non-verbal form of communication, the woven designs are highly symbolic. Over time the Ghanaian kente textile has become a cultural symbol, “a visual presentation of history, oral literature, philosophy, moral principles, religious beliefs and rules of social conduct”
(Dennis, 2004, p. 12). Today kente clothes are worn as ceremonial garments by Ghanaians regardless of their social status not only at festivals but during important life events such as marriages, religious worship, funerals, or puberty rites (see Figure 9).
CHAPTER II

THE BASIC WEAVING PROCESS

The design elements, symbolism, and history of kente can be most fully understood through the knowledge of the technologies and materials used in kente production. To provide a reference for future discussions on these topics, this chapter focuses on basic weaving technology including definitions of general weaving vocabulary and descriptions with illustrations of weaving techniques and equipment.

Weaving: Definition

Weaving involves the interlacing of two sets of linear elements such as yarns, grasses, wires, or other thread-like materials. One set of threads is called the weft and passes perpendicularly through the other set, the warp (see Figure 10). The warp and weft when connected form a weave structure. Plain weave or tabby, the simplest weave structure, is produced by the weft crossing the warp in an over-under pattern (see Figures 10 and 11).

Figure 11. Plain weave or tabby: Red threads (warp) with blue weft threads going over one warp thread then under the next warp thread. Photograph by Tom Crosman.
The function of the loom is to keep the warp in place and under tension to facilitate the transferring of the weft threads as they go back and forth. There are numerous types of looms; but for future comparisons and references, the type of loom discussed in this section is the floor loom (see Figures 12 and 13). Looms range from extremely simple devices such as cardboard looms to automatic mechanical devices that weave at speeds of 2,000 weft insertions per minute. Anni Albers (1965) states:

During the 4,500 years or, in some estimates, even 8,000 years that we believe mankind has been weaving, the process itself has been unaffected by the various devices that contributed to greater speed of execution. We still deal in weaving, as at the time of its beginning, with a rigid set of parallel threads in tension and a mobile one that transverse it at right angles. (p. 22)
Figure 13. Back of a floor loom. Adapted from Schacht Spindle Company (personal communication, December 3, 2010). Reprinted with permission.

Most types of looms have a component that controls the raising or lowering of specific warp threads that allows the weft, when it is transferred across the width of the weaving, to go over some warp threads and under others. During this process a triangle wedge shaped space called a shed (see Figures 14 and 15) is formed. This opening allows a shuttle (see Figure 16), a tool that holds the weft thread, to pass through easily. One pass of the shuttle through the shed is considered a shot or pick. The number of shots or picks that are in an inch is referred to as picks per inch (p.p.i.). The woven edge that is formed on each side of the fabric is the selvedge (also spelled selvage or selvege).
Figure 14. Shed, a wedge shaped opening. Photograph by Tom Crosman.

Figure 15. Shed allows shuttle holding weft thread (red) to pass through. Photograph by Tom Crosman.
Terminology

The method of securing the warp threads on the loom, positioning them parallel in a precise order without becoming tangled, is called warping the loom or dressing the loom. In order to begin warping the loom, the threads of a warp must be measured and cut in equal lengths in a process referred to as winding a warp, measuring a warp, or laying a warp. Warping boards, warping reels, or warping pegs are tools used to measure or wind a warp. The warp (see Figure 17) is defined as all of the threads (the group or bundle of threads) that are held under tension when attached to the loom.
Warping the loom requires the passing of threads through heddles, which are pieces of metal or strings that in the middle have a small opening (see Figures 18 and 19). The frames that hold the heddles are shafts or harnesses (see Figure 20). The treadles (see Figures 12 and 13), positioned near the floor, are pedal-like devices that are used to raise or lower the shafts/harnesses.
Figure 18. Heddles threaded with white, red, and blue warp. Photograph by Tom Crosman.

Figure 19. Heddles with openings in the middle. Photograph by Tom Crosman.
Figure 20. Shafts or harnesses are rectangular wooden frames holding the heddles; cloth beam is hexagonal with the woven cloth being rolled onto it. Photograph by Tom Crosman.
Each warp thread is passed through a slot (called a dent) in another tool, the reed (see Figures 12 and 21), whose function is to keep the warp threads evenly spaced. This comb-like piece of equipment is housed in a sturdy frame known as a beater (see Figure 12). The beater and reed work together to move and compact the weft threads together in the weaving process.

Figure 21. Close-up of a reed, the metal piece consisting of many slots called dents. One function of the reed is to keep the warp threads straight and parallel to each other when weaving. Reed and beater work together to beat the weft in place. Photograph by Tom Crosman.

For future reference and comparison, it is critical to understand the placement and function of four beams that are components of a floor loom. A description of these important horizontal crosspieces and their functions is given by Chandler (1995):

Across the front and back of the loom, about halfway up, run two large rotating beams which may be round, hexagonal, or made of four flat pieces of
wood attached together. The one in the back will have the warp rolled around it before you start weaving, so it is called the *warp beam* [see Figures 13 and 22]. The one in the front is called the *cloth beam* (or *fabric beam*) [see Figures 12, 20, and 22] since this is where the cloth will be rolled up as it is woven.

Also at the front and back of the loom, higher and probably outside the warp and cloth beam, are two flat beams, used to elevate and level the warp for weaving. These are called the *front or breast beam* [see Figures 12 and 22] and the *back beam* [see Figures 13, 22, and 23]. (pp. 15–16)
**Figure 23.** Back beam with the extra warp rolled around it. Warp is pulled forward as the textile is woven. Photograph by Tom Crosman.

**Woven Structures and Patterns**

The warp and weft when interlaced together form a weave structure. Various weave structures and patterns are created by the arrangement of the warp threads on the loom and how they are manipulated or interlaced by the weft threads. In this study three weave structures are discussed: plain weave, weft-faced weave, and patterning using supplementary weft threads.

Plain weave or tabby is produced by the weft crossing the warp in an over-one, under-one pattern (see Figure 11). When using plain weave the various proportions of the number of warp threads in relationship to the number of weft threads has a dramatically different visual effect on the finished weaving. If an approximately equal number of warp threads and weft threads are used per square inch, the resulting weave structure is referred to as a balanced plain weave (see Figure 24).
Another type of structure is made by simply changing the proportion of wefts to warps. When a fabric has more weft threads than warp threads per square inch, it creates a weft-faced weave (see Figures 25 and 26). In this structure the weft threads are packed so closely together they completely hide the warp threads. The technique of creating weft-faced weave is used in the making of most tapestries and many rugs.

The third type of woven pattern requires an additional or supplementary weft (see Figure 27) used in combination with a tabby weave. The supplementary weft is woven in a method that allows the additional thread to float or span over more than one warp thread creating a decorative motif or design on the surface.
Figure 25. Asante brightly colored weft-faced weave design where the warp threads (which are green) are no longer visible. Horizontal stripes are created by the arrangement of different colors of weft threads packed very tightly together. Photograph by Tom Crosman.

Figure 26. Ewe weft-faced design with softer colored weft threads covering the red and brown striped warp, seen at the top of the photo. Photograph by Tom Crosman.
Figure 27. Supplementary weft threads (red and yellow) float or span over six warp threads, then pass underneath six warp threads. Tabby weave is woven with the green thread. Photograph by Tom Crosman.

If the additional weft crosses the width of the weaving from selvedge to selvedge, it is defined as a continuous supplementary weft (see Figure 28). It is considered a discontinuous supplementary weft (see Figure 29) if it does not cross the entire width of the fabric.
Figure 28. Continuous supplementary weft (yellow dashed line pattern) crosses the entire width of the weaving. Photograph by Tom Crosman.

Figure 29. Discontinuous supplementary weft (black, yellow, and green rectangular patterns) made by weaving the threads back and forth in a certain area and do not cross the entire width of the cloth. Photograph by Tom Crosman.
Throughout the centuries, weavers have created distinct and unique cultural designs that have influenced the outcomes of their weavings by using different structures and methods of patterning. Asante and Ewe weavers have become masters of plain weave, weft-faced weave, and supplementary wefts, often combining all three methods in the length of one strip of cloth (see Figure 30).

*Figure 30.* Asante kente strip woven using plain weave (brightly colored green areas), weft-faced weave (red, black, yellow striped section on the left side of the photo), and supplementary weft designs (red and yellow designs between the warp sections on the left side). Photograph by Tom Crosman.
CHAPTER III

THE KENTE BASIC WEAVING PROCESS

Kente weaving is a specialized process that requires a high degree of technical skill. Given the complexity of this art form, the kente weaving process is explained in three sections: weaving equipment, preparation, and weaving the cloth. Although there are major differences in the kente cloths of the Ewe and the Asante, which are discussed later, the weavers of both groups use relatively similar tools and similar weaving methods. Unless noted, Ewe weaving equipment and techniques are referred to in the following pages.

Weaving Equipment

The narrow loom used in the textile production of weaving kente is referred to by most scholars as a double-heddle loom or horizontal treadle loom (see Figures 31, 32, and 33). This loom type, with minor regional variations, is used throughout most of West Africa to produce long narrow strips of cloth. As in the past, handmade looms and weaving tools are still produced and used today.

The Asante and Ewe double-heddle loom is constructed of an outer rectangular frame of four upright wooden boards/poles attached to a wooden base or buried firmly in the ground (see Figure 31). It is usually reinforced by upper horizontal crosspieces
and upper notched diagonal sideboards. The upper diagonal notched beams hold one or two movable cross bars that serve as hangers for certain parts of the loom.

Figure 31. Asante and Ewe loom, constructed of a rectangular frame to support the moving parts of the loom.
Figure 32. Double-heddle loom used to weave kente cloth.

The framework is used to support the moving parts of the loom. Viewing the loom from the front to back, a weaver would see the various parts in this order: front cloth beam, beater, main (plain weave) shafts and heddles with a pulley-treadle system, pattern shafts and heddles with a pulley-treadle system, back beam, and dragstone (see Figure 32). These parts and their functions are examined individually, then the loom as it operates with all the assembled parts is discussed.
Figure 33. Weaver with left hand on beater and shuttle in right hand. Photograph by Gregory Bishopp.

The beater, which is suspended by cords from a movable top bar, is approximately five to eight inches wide composed of an upper and a lower piece (see Figure 34). These two pieces are joined by thin reeds placed apart from each other to create small slots called dents. Threads pass through the dents allowing the warp to be evenly spaced and keeping the threads in the correct order. The beater also pushes the weft forward, after each shuttle pass, compressing the threads together. To assist the
weaver with the beating, the lower piece of the beater is usually heavier; this added weight creates a forward and backward swinging momentum.

Figure 34. Beater, constructed of an upper piece, heavier lower piece, and numerous thin reeds. Photograph by Tom Crosman.

Ewe and Asante looms generally have two pairs of shafts that hold the heddles. The main shaft pair (closest to the weaver) is used to produce plain weave, and the pattern shaft pair (farthest from the weaver) is used to weave the patterned sections of the cloth. To construct the shafts and heddles, two strong sticks are held apart in a special heddle-making tool and joined together by two linked threads (see Figures 35 and 36). These two threads, one coming from the top and one from the bottom, are wound in a fashion that forms a heddle (see Figure 36) with a middle looped opening (leash). The warp threads pass through these openings.
During the process of weaving, the shafts rise or lower to provide an opening (shed) that allows the weft to be passed through. This movement is controlled by the use of a pulley-treadle system. The shafts suspended from pulleys (see Figure 32) hang from a movable top crosspiece (see Figures 31 and 33). Each shaft is connected
to its mate by a string that is fastened to one shaft, passes up and over a spool held in place by a pulley, and is then tied to the second shaft (see Figures 32 and 37).

![Diagram of a heddle pulley](image)

*Figure 37. Ewe pulley today is usually made by a blacksmith in iron; a string or leather cord passes over the spool and connects to each shaft. From *Hand-in-Hand Weaving* by Blakhud Research Centre, 2003, http://www.hybertextile.net. Reprinted with permission.*

It should be pointed out that heddle pulleys are not only functional but symbolic and objects often with finely carved sculptural elements (see Figure 38). Many are considered art pieces, elaborately carved in a broad range of animals, fetish dolls, bird heads, and human figures. Ewe pulleys, made of metal or wood, are often in the shape of birds with long beaks that hook onto the top crosspiece (see Figure 39). Asante heddle pulleys are likely to be ornately carved in the shape of a head or a fertility figure called Akua’ba.
Figure 38. Old pulley with spool. Photograph by Tom Crosman.

Figure 39. Modern metal Ewe pulleys and spools. Photograph by Tom Crosman.

From the bottom of each shaft hangs a treadle consisting of a cord and a toehold (see Figure 40). The toehold is made by tying a piece of calabash, wooden stick, or, commonly used today, parts of a rubber sandal to the end of the cord. A
weaver operates the pulley-treadle system by clasping the cords between his toes and pressing each foot alternately downward (see Figure 41). When a treadle is depressed, the string that has been placed over the pulley slides causing the shafts to move up and down (see Figure 37).

Figure 40. Treadles with wooden stick toeholds. Photograph by Tom Crosman.

Figure 41. Weaver places his toes between the cords and alternately press downward to cause the shafts to move up or down. Photograph by Tom Crosman.
The double-heddle loom includes a front rotating cloth beam and a back beam (see Figures 31 and 32), unlike the floor loom, which does not have a back warp beam. With the absence of a warp beam, the warp passes over the back beam and extends a distance of 10 to 40 feet beyond the loom (Adler & Barnard, 1992). The warp, stretching out in front of the weaver, is fastened to a distinct feature of the loom called a dragstone. A dragstone is a sled, tin tray, or crate weighed down by stones with the spare warp bundle (crown) fastened to the top (see Figure 42). The weight of the dragstone is adjusted to provide the necessary tension to the warp, and the sled is gradually pulled forward when the woven strip is wound on the front cloth beam.

Figure 42. A dragstone weighed down by stones with the crown on top. From Hand-in-Hand Weaving by Blakhud Research Centre, 2003, http://www.hybertextile.net. Reprinted with permission.
Preparation

The task of preparation is a lengthy procedure that requires skills in choosing the correct yarns (in some cases spinning and dying the fibers), laying the warp, stringing the heddles and beater, and attaching the warp to the loom.

Fibers

Preparation typically begins with the weaver determining the type of fibers suitable for the fabric to be woven. This choice contributes to the aesthetics, quality, durability, and cost of the cloth.

In the past, Ewe kente cloths were woven from cotton or silk. Cotton yarns were made from the spinning and dying of locally grown or imported raw cotton. Also, spun cotton yarns were imported from the northern savannah regions (Ross, 1998). Silk threads were obtained either by imported silk brought via northern caravans or by the unraveling of silk cloth purchased from European traders on the coast (Gillow, 2003). An interesting similarity is to the Navaho of southwest America who unraveled imported bright red bayeta woolen cloth, re-spun the fibers, and then wove this yarn into their rugs. The expensive silk with its natural lustrous sheen was used in the production of elegant Asante royal court textiles and the most prestigious type of Ewe cloth known as adanudo.

Currently, the large majority of kente weavers purchase machine-spun and synthetic dyed yarns from markets. In the early 1920s, rayon, an inexpensive fiber that resembles silk because of its luster, began to be used by kente weavers (see Figure 43).
Today, commercially produced rayon, cotton, and silk continue to be the principle yarns used in the weaving of kente cloths.

Figure 43. Spools with rayon threads. Photograph by Tom Crosman.

Measuring/Laying of the Warp

The next preparatory step is laying the warp or measuring the warp. Since warp patterns have symbolic significance, warp threads are arranged in accordance to specific designs. The complex task of not only aligning the threads in a sequential order but measuring the exact number of long warp threads in equal lengths without them becoming tangled or dirty must be done with skilled precision. This task is often carried out by warp laying specialists (Picton & Mack, 1989).

Before measuring the warp, large bobbins are wound with thread and arranged by color on the protruding prongs of a rack apparatus called a bobbin carrier (see Figure 44). The threads are measured by winding them around a series of pegs that are set in the ground. The upright pegs are approximately 62 feet apart; at the end of the row, two of the pegs are placed close together (Dennis, 2004).
The thread is unwound from each bobbin as the person laying the warp walks down one side of the pegs, circles the farthest peg, and returns by walking on the other side of the pegs (see Figure 44). A weaver’s cross, a figure eight configuration, is created at the end where the two close pegs are set (see Figure 45). This cross is used not only to keep the threads from shifting out of order but to prevent tangles. The person laying the warp repeats the back and forth process until the desired number of threads are measured.

Figure 44. Measuring or laying of the warp. Warping specialist holding the bobbin carrier is measuring the warp threads. Photograph by Gregory Bishopp.
A warp may consist of 250 or more threads with each thread being up to 500 feet in length (Ahiagble & Meyer, 1998). The finished warp is carefully removed from the pegs, and, starting from the end farthest from the cross, the warp is generally coiled into a crown (see Figure 46). The crown keeps the warp in a controllable compact bundle during transport and during the process of weaving.

Figure 46. Extra warp coiled into a crown. Photograph by Tom Crosman.
**Stringing the Heddles and Beater**

After the warp is measured, the heddles and beater are strung. The weaver places the warp and heddles in front of them while holding the end of the warp that has the cross in his hand. He takes the threads, in an exact order, from the cross and passes them through the loops of the heddles. In the main shafts, used to produce plain weave, one warp thread is passed through each heddle loop. In the pattern shafts, usually four or six warp threads are passed through each loop. (A detailed example of the stringing of the shafts and heddles is explained in Chapter V.) The beater is strung next by feeding the warp ends through the dents or the spaces between the reeds (see Figure 47).

*Figure 47.* Strung beater with warp threads passing through the dents. Photograph by Tom Crosman.
The strung beater, strung shafts, and crown are now ready to be placed on the loom (see Figure 48). This involves attaching the pulleys to a top cross bar and suspending the shafts from the pulleys. Then the beater is suspended by a cord to another top cross bar, and the treadles are attached to the bottom of each shaft.

Figure 48. Strung beater, strung heddles, and crown ready to be placed on the loom. Photograph by Tom Crosman.

Finally, the warp is tied to the dragstone and to the front cloth beam. As mentioned previously, the warp and the crown (or a bundle of spare warp) is extended usually between 10 to 40 feet beyond the loom by placing it over the back and fastening it to the dragstone. The other end of the warp is then tied to the cloth beam. This set-up allows a weaver the ability to apply the correct amount of tension to the warp in order to produce quality woven strips that have even selvages.

Weaving the Cloth

As the weaver begins, he sits low to the floor or ground on a stool with the cloth beam near his lap. The weaver inserts his toes between the cord of the treadle
above the attached sticks or calabash discs and manipulates the rising and lowering of
the shafts by alternately depressing his feet. This action causes the warp threads to
separate and create a shed.

If plain weave is woven, the weaver presses his right foot down pulling every
other even numbered warp thread up. This makes a shed that allows the weaver to pass
the shuttle, holding the weft thread, from right to left. In the following seconds, the
beater is immediately brought forward to tightly pack the weft threads together. The
weaver then presses his other foot down allowing the opposite odd threads to go up.
The weft thread is shuttled from left to right, sometimes called throwing the shuttle,
and is beaten together. A rhythm of throwing and beating in time with the succession
of the up and down motion of the feet continues at a rapid pace. The woven area is
continually wound onto the front beam until the strip is finished. Depending on its
complexity, a large cloth may take four weeks (Ahiagble & Meyer, 1998) to four
months (Ross, 1998) to complete.

The weaver is careful in the weaving of the strip and uses a bamboo measuring
stick to accurately weave the correct length of the design sections. When the strip is
completed, it is taken off the loom, unwound from the front beam, cut into strips, and
sewn together (see Figure 49). The weaver’s remarkable precision and craftsmanship
is evident when the patterns line up to form the overall pattern of the kente cloth.
Figure 49. Stitching the cut strips together by hand. Photograph by Gregory Bishopp.
The techniques and patterns used in weaving kente cloth evolved from West African ancient traditions of creating cloths from narrow strips woven on double-heddle looms. The origins and refinements of West African strip-weaving are obscure, partly as a result of the few written accounts on this weaving method prior to the arrival of Europeans in the 15th century and the rarity of archeological textile findings in the region. Several factors that influenced the early development of Ewe and Asante weaving are known, and master strip-weavers of today combine these long-standing techniques and design elements to create a distinctly different textile style.

**History and Evolution**

**Ancient**

A key element in the history of West African and kente strip-weaving was the exchange of materials, ideas, and technology through trade. Scholars generally agree that weaving technology was introduced to West Africa from the north via sub-Saharan caravan trading routes; this knowledge worked its way from the northern Sahara desert southward to kente weaving areas. Over centuries adaptations of these weaving methods and tools were made in order to increase efficiency and meet the specific needs of the West African cultures (Adler & Barnard, 1992), resulting in the
development of techniques still used today to weave kente. It has also been proposed that double-heddle loom technology is indigenous to West Africa since the strips are woven much narrower than elsewhere in the world, and the loom “appears to be a device which has not occurred in other regions as a method of making textiles on a significant scale” (Lamb, 1975, p. 74).

The earliest known West African cloths made of cotton date back to at least the 11th century A.D. Textile fragments were discovered in burial chambers while excavating the Tellum caves located in the Bandiagara escarpment above the villages currently inhabited by the Dogon peoples in present day Mali. The protective nature of the caves with the low-humidity environment preserved hundreds of narrow-stripe cloth fragments. Carbon-14 dating has confirmed the antiquity of the artifacts, and studies of the cloths’ structures indicate they were woven on a narrow treadle loom (Kriger, 2006). The technical skills required to create the variety of intricate designs suggest the weavers were masters of their craft long before the 11th century A.D. and were working within a well-established textile and trading industry. Because of the range of different design styles and fibers, there is the strong possibility that the fragments are a mixture of indigenous and imported cloth.

The woven designs of the cloths found within the caves are similar to striped, checked, and weft-faced patterns used today by Asante and Ewe kente weavers. Examinations of these affinities support the theory that kente weaving is an extension of the age-old weaving techniques used to create the Tellum textiles.
The Asante, through oral traditions, believe strip-weaving techniques were acquired from weavers of the Bondouku region in the present-day Ivory Coast. There may be truth to this belief since Ivory Coast textiles have been imported into the Asante region from possibly the 16th century or earlier (Lamb, 1975). Some Asante weaving patterns have strong similarities to the blue and white warp-striped cotton Bondouku cloth called kyekye; the earliest Asante kente were also woven in cotton with blue and white striped warp patterns. Venice Lamb, author of many books on West African strip-weaving, believes not only that kente weavers were strongly influenced by the kyekye Bondouku cloths but also the Falani kassa blankets from Mali and Mossi weaving from Upper Volta.

**European**

Once the Portuguese arrived in 1471, traders became interested in West Africa because of the vast wealth of minerals and manpower in the area. European trade had a significant impact on the evolution of kente. Many cultural groups, including the Asante, prospered through trade. The elite within this strong economy promoted the production of luxury goods, including prestigious elaborate textiles. During this period, weavers were exposed to a variety of patterns and designs found in imported cloths such as Indian cottons, North African woolens, and European linens and silk. A major influence, and one that yielded a plethora of design possibilities to kente weavers, was the availability of fine quality and brightly colored weaving materials obtained through trade.
Trade cloths would be unraveled for their yarn and then used to weave precious kente textiles. One of the earliest descriptions of this practice and strip-weaving was observed in the 1720s by a Danish trader who spent time at the Asantehene Court of Opokuware:

Some of his subjects were able to spin cotton, and they wove bands of it, three fingers wide. When twelve long strips were sewn together it became a “Pantjes” or sash. One strip might be white, the other one blue, or sometimes there was a red one among them. Opoku bought silk taffeta and materials of all colours. The artists unraveled them so that they obtained large quantities of woollen and silk threads which they mixed with their cotton and got many colours. (Romer, 1965, as cited in Ross, 1998, p. 151)

As time continued, other individuals would provide written records on the textiles of the Asante and Ewe peoples. These included British envoy T. E. Bowdich who visited the Asante capital in 1817 and merchant Paul Isert who traveled the Volta Region of the Ewe in 1785. Both reported cloth woven from narrow strips and the unraveling of imported red European cloths that was rewoven into stunning court garments. Bowdich (1996) observed royalty wearing garments that certainly had characteristics of the kente cloth of today:

The caboceers, as did their superior captains and attendants, wore Ashantee cloths, of extravagant price from the costly foreign silks which had been unraveled to weave them in all the varieties of colour, as well as pattern; they were of incredible size and weight, and thrown over the shoulder exactly like the Roman toga. (p. 35)

With the establishment of colonial rule, fuller documentation of kente textiles began to appear. A major milestone included detailed research by Captain Robert Rattray (1927) in his writing about Asante weaving in Religion and Art in Ashanti. Also in the second half of the 19th century, with the advancement of photographic
technology, images of African men and women in different dress styles began to be recorded. A collection of 19\textsuperscript{th} century photographs that include images of weavers and people wearing kente are contained in the Basel Mission Archives. The Basel Mission Archives are part of the International Mission Photography Archive at the University of Southern California.

\textbf{Influences of Patrons}

Stylistic developments of Asante and Ewe kente were not only fostered by the exchange of ideas and materials through trade but were directly impacted by the interactions of art patrons with weavers. The patrons, through consultations with the artists, had a great influence on the appearance and quality of the final product. In response to patrons’ demands, highly trained master weavers from the two cultures developed cloths with distinctly different design features.

\textbf{Asante Kente}

\textit{Royal cloth.} As the Asante kingdom prospered, a centralized royal political system headed by an autocratic ruler, the Asantehene, was formed. Art patronage by these powerful leaders in the 18\textsuperscript{th} and 19\textsuperscript{th} centuries was an impetus for the rise and refinement of the Asante kente weaving traditions. Commissioned only by the Asantehene, the luxurious ceremonial cloths were originally reserved exclusively for royalty.

The hand-woven cloth is part of the ensemble of elite items of adornment, regalia, worn by the Asantehene on special occasions. Asante regalia, belongs to the state and its collective ancestors and is called stool property. A chief or king is the custodian of these treasures for the duration of his reign,
and he is expected to add to the legacy of gold and textiles for his successors. (Visona, Poynor, & Cole, 2008, p. 200)

An enormous inventory of kente cloths is available to the Asantehene with an estimated 300,000 clothes in his treasury (Ross, 1998).

According to tradition, the Asantehene does not wear the same kente more than once in public appearances, and protocol dictates that no one wears a finer kente than what he is wearing at these events. An assigned court official not only assists the Asantehene in selecting a kente appropriate for the occasion but is in charge of maintaining, repairing, and storing the textiles.

In examining the development of kente, it is essential to understand that the Asantehene had control of the production, sole rights to new designs, and complete authority in the distribution of the cloth. Rattray (1927) commented on the royal rights of these designs: “The King of Ashanti appeared to hold the ‘copyright’ on all new kente designs, and these he would either reserve for himself or allocate them to great men or women in the kingdom” (p. 235).

A vital component in the royal-controlled kente industry was the role of specially trained master weavers who became virtuosos of their craft. Within the confines of strict weaving rules, they invented patterns and wove in royal textile centers established by the Asantehene in the 18\textsuperscript{th} century. Over the course of time, the designs became increasingly complex with many of the finest and most original kente cloths being woven in the 18\textsuperscript{th} and 19\textsuperscript{th} centuries.

**Characteristics.** Within a rigid set of royal weaving guidelines, Asante artists innovatively used designated design features. These included the use of colors, motifs,
and patterns in endless variations in the weaving of narrow strips. The weavers ingeniously planned the composition and designs of the individual strips that comprise these dynamic garments.

The individual strips are composed of combining various configurations of plain weave areas and pattern areas; many of these designs are achieved by the alternation of a woven section of plain weave with a patterned section (see Figures 2 and 50).

The Asante weave only geometric non-figurative motifs in their patterns such as triangles, diagonals, checkerboards, hour-glasses, rectangles, and other shapes (see Figure 6). Each of these weft-faced and supplementary-weft motifs is named; the names are usually derived from objects, for example, owia (sun), sekan (knife), or mpaboa (sandals).

Warp patterns are also named but, unlike weft patterns, their names are generally derived from historical events, important people, proverbs, or natural phenomena. The majority of Asante kente cloths are named after these warp patterns (see Figure 51).
Figure 50. Asante kente weaving feature bright colors of yellow, red, green, and blue with the majority having formal end borders and a central design area created by alternating design with plain weave sections. From *Woven Splendor: Kente Cloths from West Africa* by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.
Figure 51. Akyempem, meaning a thousand shields (symbolizing military prowess, bravery, and courage), created with an indigo and white warp pattern. Generally, kente cloth takes its name from the warp stripe pattern. From *Woven Splendor: Kente Cloths from West Africa* by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.

Another characteristic of the Asante kente is the typical use of bright colors of yellows, reds, greens, and blues (see Figure 52). In some cases a design is created by alternating the brightly colored designs with a less vibrant colored plain weave background.
Figure 52. Adweneasa, in which every inch of cloth is covered with weft patterns. Zigzag pattern symbolizes life is not a straight line, but is a crooked path requiring prudence, vigilance, and balance to navigate. Considered to be the most prestigious of kente cloths and attempted by only the most skilled weavers. From Woven Splendor: Kente Cloths from West Africa by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.

Certain types of kente cloths have consistently been woven with specific colors having symbolic meanings. For example, golden yellows and reds are predominate hues found in many of the cloths worn by the Asantehene and ranking chiefs. The golden and yellow hues represent high status, wealth, and joy. Ernest Asamoah-Yaw
(1992) in his book, *Kente Cloth: Introduction to History*, notes the following on kente color symbolism:

Wine and red colors are almost universally associated with blood and toil of human experience, or very often used to symbolize readiness to resort to violence when necessary; blue as an agent for tranquility; and green representing earthly sustenance. And white borders showing peaceful intervals which are akin to all mankind. Color combinations in kente have never been clearly spelled out, but in the process of creating new patterns, most weavers interviewed appear to have such ideas as explained above in mind. (p. 86)

The feature of the alternating of two or more patterned strips results in a piece that often has a positive and negative composition with an overall checkerboard design with strong vertical, horizontal, and diagonal lines (see Figure 50). Although the individual strips are often dramatically different from each another, the entire piece is unified by the weaver’s ability to create a dynamic composition using the same color scheme and similar patterns throughout the entire cloth. The strips may appear, at first glance, randomly placed; however, the arrangement is a conscious precise one.

**Ewe Kente**

**Cloth.** The political and social context in which Ewe cloths were woven was quite different from the Asante. Unlike the Asante, the Ewe did not form a royal centralized government but were ruled instead by numerous village elders, chiefs, and religious leaders. The Ewe weavers consequently did not have to weave for a court or adhere to rigid royal design rules. “Instead, individual patrons were unrestricted in their ability to order cloth that reflected their own taste and financial means” (LaGamma & Giuntini, 2008, p. 36). This non-hierarchical and democratic political
structure allowed artists the freedom to experiment resulting in the creation of a
diverse range of Ewe kente designs and patterns.

Ewe pattern development was also fueled by commerce. Ewe weavers for
centuries have been major suppliers of hand-woven cloth throughout Ghana as well as
other countries. The Ewe weavers’ flexibility and innovation enabled them to create
patterns for the demands of a market that included a diverse client base. Today Ewe
master weavers continue to adapt styles for an increasing international demand for
kente cloth.

Kente cloth serves many purposes in the Ewe society and is a treasured object
often becoming a family heirloom. This hand-woven textile plays an important role at
social and religious occasions. Cloths of specific designs and colors are used at events
including marriage, puberty rites, rites for parents of twins, ordinations of religious
leaders, funerals, or festivals. Two major Ewe festivals associated with the wearing of
various types of kente are Hogbetsotso and Agbamevoza (a kente festival of the Ewe
ethnic group Agotime Kpetoe held in early September).

**Characteristics.** Ewe and Asante kente cloths are often differentiated from
each other by color, composition, and design motifs. Asante characteristically create
geometric shapes of bright colors in their cloths in comparison to Ewe kente that are
created with figurative motifs woven with predominately muted colors (see Figure 2).
The representational motifs may be images of animals, nature items, or household
objects (see Figures 53 and 54). More recent examples may include written text or
depict modern objects such as airplanes (see Figure 55).
Figure 53. Nutsuvo (Ewe man’s cloth) usually made with 20 to 24 strips and figurative motifs. From *Hand-in-Hand Weaving* by Blakhud Research Centre, 2003, http://www.hybertextile.net. Reprinted with permission.

Figure 54. Klikor Icon, a patterned strip woven with 200 traditional and modern Ewe designs. Created by 15 Ewe weavers in 2001 at the Blakhud Research Centre in Klikor, Ghana. From *Hand-in-Hand Weaving* by Blakhud Research Centre, 2003, http://www.hybertextile.net (see website for design explanations). Reprinted with permission.
Each pattern is symbolic and typically has a proverbial meaning associated more “with the necessities of daily life than with prestige” (Gilfoy, 1987, p. 42). A pattern of a key, for instance, refers to the maxim, “it is a strong key that opens a door of riches” (Blakhud Research Centre, 2003, Klikor Icon, SAFUI section), meaning hard work is the key to success (see Figure 56). A sun motif denotes “the rising and setting sun, which come quicker?” (Blakhud Research Centre, 2003 Klikor Icon, HEDZEDE KPLE TODODO section), meaning seize the opportunities of the day and do not wait for the future (see Figure 57).
The Ewe people are formed of several distinct ethnic groups, several of which have kente weaving traditions; the kente design styles are significantly different between these ethnic groups. Around Kpetoe, the Ewe Adangbe produce kente that is similar to the Asante style, although they use figurative motifs interspersed between weft-faced bands or areas of plain weave (see Figures 3 and 58).

The Ewe Anlo, who live along the southern coast and around Keta, weave a type of cloth in which they eliminate the weft-faced blocks and weave figurative motifs on a plain weave background (see Figure 59). The background is sometimes delineated by a series of subtle vertical stripes.

Several techniques are unique to Ewe weavers including the twisting or plying together of two or more different colored threads that create a speckled or variegated appearance to the cloth.
Figure 58. Ewe kente cloth of Adangbe ethnic group. Generally, Ewe textile is distinguished by the absence of elaborate end borders and simple boardering strips on each side. From Woven Splender: Kente Cloths from West Africa by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.
Figure 59. Anlo weavers float typical Ewe motifs (umbrellas, hands, combs, and drums) on a plain ground or surface of subtle striping, thus, eliminating the blocks and stipes of color. Strips with imagery alternate with strips sectioned by narrow color bars. From Woven Splendor: Kente Cloths from West Africa by Minneapolis Institute of Arts, 2006, http://www.artsmia.org. Reprinted with permission.
Another distinctive feature of certain Ewe weaving is the use of a technique called supplementary warp float, where an extra set of warp threads floats along the cloth strip, usually to form stripes of unwoven thread on the surface. This technique, which is extremely rare in African weaving, is not normally used by the Ashanti. (Clarke, 2002, p. 76)

Although many Ewe kente cloths contain intricate figurative motifs, some may be woven with simple decorations of geometric forms, abstract figures, stripes, and plain weave backgrounds (see Figure 60). These textiles, created with a modest use of decorations, are the style of kente that a person of average means might be able to afford. In contrast, the more expensive kente weavings incorporate complex figurative patterning requiring more time and skill to weave.

*Figure 60.* Ewe kente of striped patterns worn in toga-like style, leaving right shoulder and arm uncovered. From *Hand-in-Hand Weaving* by Blakhud Research Centre, 2003, http://www.hybertextile.net. Reprinted with permission.
Kente designs have developed and survived for over 400 years. The total number of kente designs of the Asante, not including Ewe designs, exceeds 500 each for warp and weft patterns (Ross, 1998). Instead of recording designs in a written form, kente weavers used oral traditions and pattern books, bags, or books containing woven pattern samples to preserve this knowledge. Today these patterns are not only reproduced in kente cloths but inspire many contemporary weavers to create new designs. This chapter discusses the evolution of kente designs and research on traditional patterns, and also presents drafts that provide a foundation for the weaving of kente-like cloth on a Western style floor loom.

**Stylistic Developments**

Asante and Ewe kente designs appear to have evolved through a logical progression of steps, from simple warp striped patterns to increasingly complex weft designs. The development of these designs was made possible through the experimentation of skilled master weavers while creating textiles in an established weaving industry.

In the initial stages, kente were not the intricately patterned colored textiles produced today, but were predominately solid blue and white warp striped or checked
cotton cloths. These cloths were woven in plain weave with a single pair of shafts. Rattray (1927), an early 20th century anthropologist, noted that the blue and white cloths were highly valued prestigious items worn by Asante leaders. The blue color in these early clothes was obtained by using cotton dyed with indigo; eventually a limited palette of colors evolved from other plant derived dyes, brown from Indian tamarind, red from dried cam wood, and green from spinach leaves.

During early stages, narrow one-color bands woven with a weft-faced structure were introduced. These designs, referred to as bankuo by the Asante, often consisted of very simple geometric patterns woven in between two solid stripes.

The next major development was made possible by the availability of fine quality colored threads obtained through the unraveling of imported cotton and silk cloth.

As the color range expanded, so did the complexity of weft-faced patterns, eventually evolving into the mix of solid color bands of weft stripes known today as babadua [see Figures 61 and 62], a term that refers to a segmented cane similar to bamboo. (Ross, 1998, p. 78)

With the development of intricate patterns, a second pair of shafts was introduced to the double-heddle loom and facilitated the evolution of supplementary weft designs. The Asante often use these complex geometric patterns, called adwen, in a design unit called susudua, which includes the adwen placed between two sections of babadua (see Figure 61). The Ewe use a style similar to the susudua but often insert figurative motifs between the weft-faced bands.
Along with the commonly used babadua, two other patterns, nwatoa and akyem, are extensively used by kente weavers in borders and as framing units for other
designs. These patterns are often delineated on the top and bottom with a narrow white horizontal stripe. The babadua (see Figure 62) are usually symmetrical in composition and are typically woven with black, blue, green, yellow, or red horizontal weft-faced bands. Another pattern, nwatoa (snail shell), is easily recognized by its alternating red and yellow weft-faced pattern (see Figure 63). The nwatoa design, perhaps named after the textures of a snail shell, is usually made of three to five sections of vertical columns that are divided by narrow checkered bands.

Figure 63. Nwatoa pattern. Photograph by Tom Crosman.

A third type of pattern called akyem (see Figure 64) derives its name from a wickerwork shield that is covered with monkey skin and cloth (Ross, 1998). Unlike the babadua or nwatoa, the akyem is not made of a totally weft-faced structure but instead is made by alternating small areas of plain weave, allowing the warp colors to be seen, with weft-faced areas.
The Asante also produce a very rare and prestigious cloth, Asasia, created with techniques and patterns that are secretly guarded by royal weavers (Alder & Barnard, 1992). The asasia are usually made exclusively in silk and are woven with intricate twill designs (diagonal lined patterns) using three pairs of heddles. The weaving of this complex cloth is not only difficult but costly and time-consuming; currently, only a few weavers still have the knowledge and skill to produce the textile (Ross, 1998).

**Kente Categories**

Throughout most of the world, cloths made by the Asante and Ewe are referred to by the term kente; however, it is not the indigenous word used by either culture for their strip-woven textiles. The origin of the word kente is unknown but it has been suggested it derived from the Fante word kenten, meaning basket, due to its often checkerboard or basket weave appearance. The Ewe believe the name kente came from the words kee, which means “to create a shed,” and tee, which means “to compress the weft by using the beater” (Dennis, 2004, p. 12).
The Asante refer to their fine weavings as nsaduaso; nsaduaso weaving techniques are divided into categories, which include ahwepan, topreko, and faprenu. Many Western scholars use the generic name adanudo for Ewe quality weavings; however, certain Ewe ethnic groups may use the term agbamevo (Dennis, 2004, p. 12). Ewe weaving technique categories include vutsatsa, novi, kpevi, kogavi, and adanu (Blakhud Research Centre, 2003). These Asante and Ewe technique categories consist of a vast array of individual patterns. This is similar to Western weaving, which includes various weave structure categories such as twill, overshot, and Swedish lace, with each category consisting of numerous patterns. For example, overshot includes the patterns Lee’s surrender, rose valley, wandering vine, and many others.

**Drafts**

Drafts are written instructional diagrams instructing weavers how to create certain patterns. They can be compared to a musical score that indicates to a musician what notes and how those notes should be played. The following drafts, accompanied by a photograph of a woven sample, have three parts: threading draft, tie-up, and treadling (see Figure 65). The threading indicates the order in which the warp threads, or ends, are placed through the heddles on a particular shaft; the tie-up indicates which combinations of shafts are used or will raise together when a treadle is pressed; and the treadling indicates the order in which the combinations of shafts are used to create a certain design. For further technical information on drafts, I recommend Deborah Chandler’s (1995) book, *Learning to Weave*. 
Figure 65. Plain weave draft. Photograph by Tom Crosman.

**Threading: Double-Heddle Loom**

The threading of a double-heddle loom with two shafts (see Figure 32) involves placing the ends through the heddles in an order that allows plain weave to be produced with the front pair of shafts (closest to the weaver). In this study, these are referred to as shaft 1 and shaft 2. The designs are woven with the back pair of shafts (farthest from the weaver), which, in this study, are referred to as shaft 3 and shaft 4.
First to be threaded are the back shafts in which groups of four or six warp threads pass together as one unit through one heddle. These groups are threaded alternately on shafts 3 and 4 (see Figure 66). By treating several warp threads as a unit the threads in a group will move up and down together, a method that is used to weave weft-faced and supplementary weft patterns in kente cloth. The front shafts are threaded next with only one warp thread passing through one heddle. The individual warp ends are threaded alternately on shafts 1 and 2; they are raised or lowered to create plain weave (see Chapter II). When finished with the threading, each individual thread will have passed through both pairs of shafts, once in a heddle in either shaft 3 or shaft 4 and once in a heddle either in shaft 1 or shaft 2 (see Figures 66 and 67). In Figures 66 and 67, the warp pattern is comprised of a repeated sequence of four red threads, four blue threads, four red threads, and four blue threads.

![Diagram of double-heddle kente draft](Image)

**Figure 66.** Double-heddle kente draft. Photograph by Tom Crosman.
Figure 67. Threading for kente cloth on a double-heddle loom. Photograph by Tom Crosman.
Threading Draft and Tie-up: Floor Loom

The floor loom needed to produce patterns similar to kente cloth requires four shafts. Each individual warp thread passes through one heddle in one of the shafts. The threading order is 1-2-1-2 3-4-3-4, which means the first warp end is threaded in shaft 1, the second in shaft 2, the third in shaft 1, and the fourth in shaft 2. The next four ends are threaded on shafts 3 and 4: the 5th in shaft 3, the 6th in shaft 4, the 7th in shaft 3, and the 8th in shaft 4. This sequence is repeated until the desired width in the loom is achieved. (A six-thread sequence can also be used: 1-2-1-2-1-2 3-4-3-4-3-4.)

The tie-up uses the combination of shafts 1 and 3 and the combination of shafts 2 and 4 to produce plain weave. The combination of shafts 1 and 2 and the combination of shafts 3 and 4 are used to produce weft-faced and supplementary weft patterns. Figure 68 shows the threading draft and tie-up for all of the following sample patterns. The following samples were woven with very fine threads to weave approximately 4-inch wide strips.

Figure 68. Threading and tie-up sequence for a floor loom. Photograph by Tom Crosman.
Plain weave: Ahwepan (Asante), Vutsatsu (Ewe). Plain weave, although simple in structure, can create unlimited design possibilities just by altering the color sequence of the warp and the weft threads. In Figure 65, plain weave is woven by alternating the raising of shafts 1 and 3 followed by the raising of shafts 2 and 4. This treadling sequence is repeated until the desired length of the plain weave section is woven.

Weft-faced patterns. Weft-faced (novie or novi, term used by the Ewe) patterns are woven with a higher ratio of weft to warp threads causing the warp to be completely covered by the weft.

Weft-faced horizontal stripes: Babadua (Asante). Weft-faced horizontal stripe patterns, called babadua by the Asante, are woven with the weft going over and under groups of warp threads (usually groups of 4 or 6). The designs are made of various color and width striped arrangements (see Figure 69). The Asante babadua is typically woven with different width strips of blue, yellow, red, green, or black colors. These patterns are often delineated on the top and bottom with a narrow weft-faced horizontal stripe woven with four to eight rows of white thread (see Figure 62).

Weft-faced checks and vertical columns. Checks and columns can be used in various combinations to create numerous designs. A commonly used Asante design, nwatoa, is woven with weft-faced red and yellow checks and columns (see Figure 63). The drafts are the same for both checks and columns; to create taller columns, continue to repeat the treadling pattern until the desired height is woven (see Figures 70 and 71).
Figure 69. Weft-faced horizontal stripe draft. Photograph by Tom Crosman.
Figure 70. Weft-faced check draft. Photograph by Tom Crosman.
Figure 71. Weft-faced vertical column draft, which is the same as the weft-faced check draft; to create taller columns, continue to repeat the treadling pattern. Photograph by Tom Crosman.

*Other weft-faced patterns and drafts.* Figures 72, 73, 74, and 75 show examples of other weft-faced patterns and drafts.
Figure 72. Weft-faced narrow wavy lines draft. Photograph by Tom Crosman.

Figure 73. Weft-faced wide wavy lines draft. Photograph by Tom Crosman.
Figure 74. Weft-faced dash-aligned vertically draft. Solid blue sections show the red dashes woven above each other. Photograph by Tom Crosman.

Figure 75. Weft-faced dashes-aligned in alternation draft. In the red middle section the blue dashes alternate in every other row. Photograph by Tom Crosman.
Supplementary weft. The majority of kente geometric and figurative patterns require an additional or supplementary weft used in combination with a tabby weave (plain or ground weave). The supplementary weft is woven in a method that allows the additional thread to float over more than one warp thread creating a decorative motif or design on the surface. If the additional weft crosses the width of the weaving from selvedge to selvedge, it is defined as a continuous supplementary weft (see Figure 28). It is considered a discontinuous supplementary weft if it does not cross the entire width of the fabric (see Figure 29). Kente discontinuous supplementary weft patterns (called adanu by the Ewe) are often made by hand-picking the weft designs (see Figure 76). A sword, a tool similar to a pick-up stick, is used for picking up individual warp threads; it is inserted between these warp threads to hold an open shed.

Figure 76. Supplementary weft-topreka (discontinuous). Design can be made using draft in Figure 78 except supplementary weft threads do not cross the entire width of the cloth. Tabby row, however, is always woven the width of the cloth. Photograph by Tom Crosman.
Two common techniques of weaving with a supplementary weft by kente weavers require two weft threads; the supplementary weft threads are double or triple the thickness (weight) of the tabby thread. The topreko (passed once) technique requires the supplementary weft going over and under alternate groups of four or six threads (see Figures 77 and 78). This is followed by one row of tabby weave. The tabby row woven between the supplementary weft row allows the striped plain weave background to show through, giving the design a translucent quality (see Figure 77). Cloth merchants and kente weavers refer to topreko in English as single weave (Ross, 1998).

Figure 77. Topreko pattern. Photograph by Tom Crosman.
Figure 78. Supplementary weft, topreka draft (continuous). The yellow and green supplementary weft threads are thicker (8/2 tencel) than the white tabby threads (20/2 cotton). Photograph by Tom Crosman.

In the second method, the supplementary weft is inserted twice, passing back and forth with a change in the shed, before one row of tabby is inserted. The tabby is used to add extra strength to the textile. The technique, called faprenu (thrown twice) by the Asante, creates weft-faced solid tapestry looking designs (see Figures 79 and 80). Since twice as many supplementary weft threads are used in relation to the tabby thread, this technique is also called double weave; however, it should not be confused with the double weave created by textile artists in which two layers of fabric are woven at the same time.
Figure 79. Faprenu design. Photograph by Tom Crosman.

Figure 80. Supplementary weft, faprenu draft. A continuous or discontinuous supplementary weft pattern can be woven with this draft; in either pattern, the tabby always crosses the entire width of the cloth. Photograph by Tom Crosman.
Supplementary warp patterns. A distinct feature of certain Ewe weavings is created by a technique using a supplementary warp (mentioned in Chapter IV). This technique, called kpevi (two stones), allows certain warp threads to float on top of the surface of the cloth (see Figure 81). When weaving kpevi, two warps are used and the individual warps are tied to separate dragstones (see Figure 81). The threads of the second warp are not threaded in heddles; the weft passes over and under these warp threads to create the design.

Figure 81. Kpevi, Ewe supplementary warp technique. Upper left: two individual warps tied to separate dragstones; yellow and green warp is the supplementary warp. Upper right: shuttle passes over and under yellow and green supplementary warp threads in the middle of the blue threaded warp. Lower left: finished kpevi design. Lower right: detail of supplementary warp threads floating on surface. From Hand-in-Hand Weaving by Blakhud Research Centre, 2003, http://www.hypertextile.net. Reprinted with permission.
**Variations.** It is possible to create an infinite number of designs using a floor loom and the information presented in this chapter. The altering of the type of threads, the use of different materials, the color choice of threads, the arrangement of the threads, and the combination of weaving techniques dramatically affects the textile's character (see Figure 82).

*Figure 82.* A modern design using a variety of techniques and colors. Photograph by Tom Crosman.
CHAPTER VI

CONCLUSION

Kente cloth is admired for its striking appearance but, as the previous chapters have revealed, there is much more to this complex strip-woven textile than its visual appeal. To fully appreciate and understand the centuries-old tradition, this thesis presented an overview of the history, designs, and technology of the textile. In addition, a primary purpose of the research was to provide drafts and information to be used for the weaving of kente-like cloth on a floor loom.

Through the research undertaken in this thesis, I have obtained knowledge that I transferred and applied to my own weavings. Adapting traditional kente techniques to a floor loom, I have created contemporary designs that are relevant to my culture.

_Economic Woes_ (see Figure 83) takes its name from the green and white striped warp, symbolizing money. This artwork, focusing on the current economic crisis, utilizes graphics in the adwen blocks that are framed by the characteristic Asante weft-faced design called babadua. The colors in the babadua section are symbolic: green representing money; gold representing wealth; black representing crisis; and red, white, and blue representing America. The ragged edges of these sections refer to the fragility of the economy.
Figure 83. Rhonda Crosman. *Economic Woes* (details), 2008. Cotton, silk, ink, dollar bills. 24 x 32 in. Photograph by Tom Crosman.
The graphics are named homeless, unemployed, hunger, paying bills, and goodwill. The center graphic is influenced by the German Expressionist artist, Kathe Kollwitz. The children are holding a cell phone and iPod symbolizing the irony that Americans own so many materialistic items, but currently so many people are living in poverty. The design sections with folded dollar bills hold business cards of non-profit organizations, conveying the message of hope and goodwill.

The sights and sounds of childhood memories inspired the piece *Night Time on the End of the Dock* (see Figure 84). The accented middle adwen design, named loon, represents the black and white patterns found on this bird that frequently is heard at night on Minnesota lakes. Weft-faced sections on each end, named Minnesota waters, are striped and checked arrangements woven with a palette of blues. The design effect was achieved by the alternation of precisely measured woven plain weave sections and weft-faced design sections. The blue and black warp was woven in one long narrow strip. When the strip was taken off the loom it was cut into five individual strips that were sewn together.

*Environmental Awareness* (see Figure 85) combines characteristics of both Asante and Ewe kente. The artwork uses the Asante design unit named susudua but is woven with figurative motifs, which is a distinguished feature of Ewe kente. Each weft motif is named and has a meaning associated with environmental issues facing our global community. The hand motif, for example, is named don’t take for granted what is handed to you, meaning the world is a fragile place and needs to be treated with care.
Figure 84. Rhonda Crosman. *Night Time on the End of the Dock*, 2009. Cotton and silk. 15 x 52 in. Photograph by Tom Crosman.

Figure 85. Rhonda Crosman. *Environmental Awareness*, 2008. Silk and cotton. 4 x 62 in. Photograph by Tom Crosman.
The sculpture, *Harvest*, is woven with tones of brown symbolizing the fall season (see Figure 86). The geometric design, feeding the hungry, displays a raffia-like texture achieved by the unique use of corn silk and corn husk supplementary wefts.

*Figure 86.* Rhonda Crosman. *Harvest*, 2010. Cotton, rayon, corn husk, corn silk, and gourd. 10 x 48 in. Photograph by Tom Crosman.

Kente cloth originated as a prestigious ceremonial cloth worn exclusively by the wealthy and powerful among the Ewe and the Asante,

But it has long since attained the greater status of a national emblem and has gone on to become a pan-African cultural symbol. The power of that symbol lies not only in the elegance of kente but also in the poetic, indeed proverbial, wisdom incorporated in its technology and design. (Gumpert, Picton, & Anyidoho, 2008, p. 46)
The tradition is currently evolving due to various technological, social, and economic factors. Ewe and Asante weavers, however, are adapting to modern times while at the same time preserving centuries-old techniques.

Upon completion of this thesis, I believe that contemporary weavers and other artists can draw inspiration from the aesthetics, designs, and symbolism of these magnificent textiles. I recommend that readers continue to study kente cloth to discover the wisdom and elegance it can contribute to contemporary weaving. In the words of the African maxim, “knowledge is like a baobab tree, one person’s arms cannot encompass it” (Take on Africa, 2008-2011).
REFERENCES


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