

*Legacy*

*Jewelry Techniques of West Africa*



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# Legacy

Jewelry Techniques  
of West Africa

*Matthieu Cheminée*

## *Dedication*

This book is dedicated to the African jewelers who have invited me into their workshops, their homes and into their lives. It is dedicated to the fathers and uncles who taught them, and to the sons and nephews who will carry on the family business. Because this is the spirit of jewelry in Africa, a knowledge and honor passed down from one generation to the next.

### *Fa ci yè*

*(Inherited from my father)*

Dedicated to my mother and father Martine and Jean-Louis—for all that you were and are for me, for your presence and for your guidance in my life. To my two beautiful sons, Nemo and Ziya, my greatest teachers.



## *Acknowledgements*

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# Foreword

I can still remember the time and place where I encountered *Africa Adorned*, a wonderful book by Angela Fisher. Like hundreds of jewelers before and since, I was moved by the power of the ornaments in those fabulous photos—in fact it is not an exaggeration to say that the book fundamentally altered my thinking about human adornment. Over the years I have reflected on the power of that book but I am unable to put into words just why it made such an impression. I am not a scholar or even a student of African culture, but the connection was not based on information, history or language. Instead, whatever it was that spoke to me in that book, and that speaks to me in this one, is an intuitive rapport with the work of African jewelers.

After that first encounter with a friend's copy, I bought my own copy of *Africa Adorned*, and since then I have picked up books on African jewelry whenever I find them. These are excellent books and I look through them often, but they are usually written by an anthropologist or curator. In them I find tantalizing glimpses of technique but rarely more than that. *Legacy* goes into the markets of West Africa, but also into the workshops and homes of metalsmiths. We see their tools, watch their process, and have access to their techniques. And what a thrill it is.

Matthieu Cheminée is a French-born metalsmith, living in Canada now, who worked in Africa for three years and has returned a dozen times to research this book. Besides being a practicing metalsmith, he is a free-lance photographer and teacher. This combination makes him the perfect author for this book, but there is more than that. I had a chance to travel to Senegal with Matthieu as this book was in its final stages and I was able to witness firsthand the strength of his personality. Everywhere we went, his smile, a ready handshake and a quick joke made him welcome. As he says in his introduction, "I am handed a hammer or a file to test my skills, a test that always ends in a good laugh. Once proven, I am welcomed not only as a friend but as a member of the family."

As we traveled I was overwhelmed by the intricacies of the network of metalsmiths. Within five minutes of any conversation, Matthieu had discovered that he knew a relative of this person, or that they had a mutual friend. This is

all the more amazing when you learn of the nomadic ways of the craftspeople in the region. Political unrest, shifting families and a restless desire to learn new techniques send the craftspeople moving between cities and from one country to another. At first I had trouble understanding this mobility, thinking of the complexity and effort of packing up a house and getting settled into a new community. When I was there I saw that for most of the jewelers we met, their professional lives consisted of a small anvil and a toolbox. Their clothes fit into a backpack and it appears that wherever they go, they quickly find a welcome into their adopted family of jewelers.

When Matthieu approached me to discuss publishing his book, I was primed to like the idea. When I saw his photos, I was hooked. But as excited as I was, when I got involved as editor my enthusiasm deepened. As you will quickly discover, this book is about more than metal techniques. Like his friends in Africa, Matthieu is driven to learn new techniques, but his true passion is for the people he has met in his travels. Beyond the lovely photographs, beyond the clear descriptions of how work is made, the beating heart of this book lies in the personal stories of the jewelers you will meet in these pages. It is worth noting that Matthieu was committed from the outset to include these biographies. His feeling was that showing the work without introducing the artist would not be giving the full story; simply put, it would be rude.

In my brief travels with Matthieu in Africa I met several dozen jewelers. Every one, without exception, was friendly and generous. Though most have few of the conveniences that we take for granted in the West, I never heard a word of complaint. Instead, we were served tea, we shared our ideas and we laughed a lot. The deep connection I have had with African metalwork throughout my career took on a new energy because of my visit there.

I think you will find that vitality in these pages. Through Matthieu's careful eye, his kindred spirit and his passion for those things that are universal, that spark of connection illuminates this book.

- Tim McCreight

# Introduction

*“In Africa, when an elder dies, it’s like a library burning.”*

This quote from the African author Amadou Hampaté Bâ represents the importance of sharing and archiving culture, knowledge and know-how for the benefit of future generations. It is one of the main reasons I wanted to write this book.

Jewelry in West Africa is usually passed down from father to son. As I have been told many times: “It’s hereditary, it’s in our genes.” There are exceptions of course; a jeweler friend in Niamey, Niger taught his wife so that they could work together. Another jeweler who comes from a farming family discovered his passion for the trade during the 1984 drought and famine in Niger. He and his family were forced to leave their land for lack of food and water and moved to Zinder, Niger. There, everyday, he walked past Senegalese jewelers, stopping to watch, sometimes for hours. Eventually, a Malian jeweler who was working there invited him to become his apprentice. A technical school in Dakar brings young women into the jewelry trade; some graduates have even made it as jewelers in New York City.

In 1996 I went to Mali for a couple of weeks and ended up staying for almost three years. Prior to that time I had moved from France, where I was born, to Taos, New Mexico to learn how to make jewelry. While in Mali, I sought out jewelers, eager to learn more about their lives and the way they worked. After my stay in West Africa I moved to Montreal, Quebec, Canada where I live now, but my love for Africa kept drawing me back. Over the last decade I have returned often, usually twice a year, to see more countries and meet more jewelers—always photographing as I went.

The result is this book, in which I have attempted to capture the techniques of the highly skilled jewelers I met on those travels. In addition to the techniques, I have included here profiles of many of the jewelers who share their techniques in these pages. I have also included personal anecdotes that will, I hope, convey the generous spirit and warmth of the people of West Africa. These pieces—the techniques, profiles and cultural notes—are woven together in the pages that follow. Assuming that not all readers will be familiar with some of the technical terms used, I have included a glossary at the back of the book.

I believe this book to be an accurate representation of the most popular West-African techniques. West Africa is a large region, very rich culturally and historically. It is a mosaic of tribes, ethnic groups, and different faiths. Every city, town, neighborhood, village and workshop offers a variety of new and ancestral techniques rarely seen Westerners. A lifetime would not be enough to discover all of them, as the ingenuity of those artisans is infinite.

In these pages I use the term “in the West” to give perspective and to help readers understand the use of tools that might be familiar to North American and European craftsmen. Throughout the book I share names of tools in the local tongue, such as Tamasheq or Bambara. In some cases the spelling is phonetic and therefore variations might exist. For example, depending on the country, the village or region a Tuareg anvil might be called a *touhounte*, *touine* or *tiwinte*.



*The author with  
Ibrahim Abdo  
Guinea*

Most of the time, when walking in African villages, it is the sound of a hammer that leads me through the streets and alleys. For me, discovering a small hidden workshop, finding new techniques, and meeting new people is a kind of treasure hunt. African hospitality and generosity are one of the many qualities that made me fall in love with this part of the world.

It is a real pleasure to spend hours watching jewelers and artisans at work. The blacksmith caste includes most of the trades that have to do with forge and fire. In the

case of the Tuareg people, for instance, it also includes the handling of leather, wood and soapstone carving.

The blacksmith caste is like a large family. Sometimes in my visits I am handed a hammer or a file to test my skills, a test that always ends in a good laugh. Once proven, I am welcomed not only as a friend, but as a member of the family.

CHAPTER 4

# Forging



*Oumar Sango  
demonstrates  
forging a  
traditional  
Fulani earring.*

## Hammers & Anvils

The anvil and hammer are essential tools for West African jewelers. Forging techniques transform a metal ingot into a lovely object using only these tools, a transformation so complete that it seems magical. Forging demonstrates the direct relationship that exists between blacksmiths and jewelers.

For a long time, anvils and hammers were made by the jewelers themselves. Traditionally a master jeweler made a gift of these basic tools to his apprentice to mark the completion of his training. This tradition continues, especially in the rural countryside. In large cities like Bamako, Mali, local blacksmiths make most of the anvils and hammers we see, although Chinese models are increasingly becoming available.

Always there in a corner of the workshop, anchored in a log, in all sorts of different shapes, the anvils are witnesses. They have seen every piece of jewelry made in the workshop for generations.

*“We old-timers can recognize a good jeweler just by looking at his anvil. If it is damaged and has filing marks, it means that either the jeweler doesn’t know how to work or that he wants to make money fast. What’s important is the anvil, the tools, not the individual pieces he makes.”*



Kankan, Guinea.



*Homemade anvil. Dabola, Guinea.*



*Homemade anvil and tongs.*



*Anvil, Bamako, Mali.*



*Anvil of repurposed steel part, Bamako, Mali.*



*Fulani anvil made from a truck axle. A small Toucouleur anvil. Conakry, Guinea.*



*Fulani anvil. Conakry, Guinea.*

## Touhounte: The Tuareg Anvil

One of the most important tools for a Tuareg jeweler is his anvil. For an apprentice, receiving this fundamental tool is like an initiation into adulthood. Later, the jeweler will learn how to craft his own anvil, often made out of an axle recovered from a broken car. In turn, he will be able to give this to his apprentice someday.

Anvils differ in shape and size depending on the country or the region in which they are made. Typically the shape of the top of a Tuareg anvil is a small square about 6 by 6 cm (2½"

square). It is well polished and has a small hole in one corner. The anvil is about 50 cm (20") tall and tapers to a point at the bottom.

There are different ways to install the anvil depending on the workplace. If the workshop is in town or in a room with a cement floor, the anvil will be hammered directly into the cement, driven at least 15 cm (6") deep. When the shop is on the side of the road or in a temporary outpost in the desert, the jeweler digs a hole into which he fits a log. The anvil is hammered into the log

which is then completely covered with sand. This prevents the anvil from sinking into the ground with every blow of the hammer. To catch the precious metal filings, jewelers set a piece of rubber inner tube or a sheepskin on the ground at the base of the anvil.



*Tuareg anvils. A piece of rubber, leather or canvas is set around the base of the anvil to catch metal filings.*

## Anvil Pins



Forming and shaping on a small anvil.  
Conakry, Guinea.

Virtually all Tuareg anvils in West Africa have a hole in a corner to accommodate a *touine n'tchira* or anvil pin. These are used when hammering small shapes and details, and as a stop when filing. Most jewelers have several pins in different sizes as needed. Even more than the anvils, these pins represent the working methods and personalities of the men who use them.

The small hole in the corner of the anvil faces the jeweler. It is positioned to the left when the jeweler is right-handed and to the right when he is left-handed. The small hole is used to hold pins of different sizes and shapes: square, round and many others, each with a specific function. The pin also

provides a stop to secure and stabilize a piece that is being filed. For finishing, the pin is replaced by a piece of wood on which the jeweler can work without damaging the metal.



Various anvil pins from Guinea, Niger, Burkina Faso and Mali.



*These traditional pins are used as small anvils when forming, and as supports for carving, engraving and filing. Wooden pins are used in the final stages of finishing to avoid scratches. When a form requires something unique, a new pin is made or an old one is modified.*

**PROFILE****Modibo Ballo, Jeweler from Mali**

As Modibo himself likes to say, his specialty is *le massif*; working a solid mass. He knows a variety of techniques, but specializes in forging—transforming a silver or gold ingot into a bracelet, a ring or earrings, using only a hammer and an anvil. He usually then ornaments his jewelry with stamps (or *pushrods* as he calls them).

The name Ballo is typical of the blacksmith caste in Mali, as are the names Kante, Fofana, Berthé, Sinayogo or Camara. Members of Modibo's family have been jewelers from father to son for many generations.

He was born June 6, 1982 in Segou, the regional capital of Mali's Fourth Administrative Region, located

250 kilometers (150 miles) north of Bamako on the banks of the Niger River. Segou is famous for the pottery made in the renowned village of Kalabougou on the other side of the river. It is quite a sight, especially on market days, to see boats filled with pottery as they float up the river.

Modibo began his apprenticeship at a very young age. Even before he could handle tools, he sat for hours beside his father watching him. Later on, after school, he would take care of the forge and the melting of recycled metal for his father and uncle, and soon started to pour ingots and practice the art of forging. After graduating from high school, Modibo went on to



university and got a diploma in international commerce while continuing to make jewelry to earn pocket money. Throughout his schooling, all the way through his college graduation, Modibo learned and perfected a variety of techniques with his father, uncles and brothers.

After his father's death, as is the custom, Modibo's older brother took over the family business which was well located in the artisan market at the heart of Bamako, Mali's capital. Modibo finished his studies but decided to focus on jewelrymaking. He works with his brother, not on salary but "by the piece." That is to say, his brother or any other customer provides raw metal and Modibo transforms it into jewelry. He generally gets paid 2000 CFA francs (\$4.50) for a bracelet and 1500 CFA francs (\$3.40) for a ring.

Modibo works sitting on the step in front of his brother's shop, in the courtyard of the artisan center, facing the main mosque of Bamako. Every morning at around 8 o'clock he opens the family shop and brings out his tools. First comes the wood block in which his anvil is set. Next, his hammers, which are usually soaked overnight in a bowl of water so that the wood handles swell and tighten the head. Then he lays out his files, stamps and a small piece of foam on which he sits and where he will spend the rest of the day. He or one of his young apprentices lights a fire in the forge. A few turns of the handle of the French forge blower is enough to create a strong hot fire. A crucible filled with silver is buried under the coals and a tea pot is placed on top. The first tea is served and the first ingots are poured—work can begin.

As is the case for most jewelers in West Africa, work and income are closely connected to the economic and political situation of the country. In March 2012, armed separatists (soon joined by Sahelian extremist groups, traffickers and later, a military coup) crippled the Malian economy. Tourism trickled down to practically nothing and jewelers had very little or no work at all. To address this crisis, Modibo "making good use of his school background in international trade" gathered jewelry from his brother and several other jewelers and took it to international fairs in West Africa. It was at the West Africa International Show (SIAO) in Ouagadougou that we met again in October of that same troubled year of 2012.



*Forging hammer left all night in water so the wood swells up and holds the head for a day of work. Bamako, Mali.*

## Forging a Bracelet



Forged bracelets are the most commonly worn jewelry among men in West Africa. With the expansion of Islam in the late 18th century, men stopped wearing gold jewelry; most mens bracelets today are made of silver. This custom traces its origins to the teachings of the Prophet Muhammad that aim to prevent Muslim men from feeling unduly proud, as well as encouraging them to use their income for something more useful to their communities than acquiring gold.

Bracelets come in many shapes and there are all sorts of ways to ornament them. There is usually a flat section in the center on which the name of the wearer is engraved or applied in

relief. It is traditional to have a sphere at each end of the bracelet; this is a matter of design and comfort.

The following pages show two jewelers making their version of this popular bracelet. First we see Modibo in his workshop in Mali.

The making of a forged bracelet in Mali or Burkina Faso always begins with an ingot. The amount of metal used varies depending on the size of the desired bracelet and also on whether there are spheres at the ends. A child's bracelet will require approximately 20 grams ( $\frac{2}{3}$  ounce); twice that much will be needed for a woman's bracelet, and up to 100 grams ( $3\frac{1}{2}$  ounces) will be needed for a man.



*Every morning, the first task is to pour ingots for the work of the day. Each bar is divided in four equal parts as determined by weight. The ingot is balanced on a chisel to find the center, then struck with a hammer to mark it. It is then cut with a chisel.*



*The first step in forging a bracelet is to transform the ingot into a square bar approximately 10 cm (4") long.*



*The hammer is lifted up high and brought down hard.*

After annealing, the jeweler needs to define areas at the ends of the bar that will later become the spheres. To mark these sections, the bar is positioned over the edge of the anvil so that the reserved area is unsupported. Hammer blows are struck to define the demarcation, then the bar is rotated a quarter turn and the blow is repeated. When the hammer hits the silver, the opposite side is automatically marked by the edge of the anvil. The jeweler flips back to the first side and strikes a couple of blows before rotating the bar a quarter turn. This equalizes the number of hits and allows for a more pronounced demarcation. The other end of the bar is handled the same way.



*Annealing on the forge.*



When forging, some jewelers crush a piece of cement or sprinkle a little sand on the anvil so that the piece doesn't slide when it is hit. It always amazes me to see how much the metal moves with each blow of the hammer and to see the precision of each strike.

The next step is to stretch the center of the bracelet by striking twice on one side and only once after turning a quarter turn. The result is an area that is thinner and twice as wide as the original bar. This will become the flat center section of the bracelet. By repeating this same action a few times, Modibo has created a flat area about 7 cm long (2¾"). He anneals the bracelet, then marks the center.

As with the two ends, Modibo places the marked section across the edge of the anvil. In this case, it is the middle part that is made thinner and wider. A perfectly aimed hammer blow strikes exactly opposite the anvil edge, creating identical indentations on both sides of the bar. Usually the piece is struck a couple of times before it is turned and struck again. Striking equally on all sides creates a square cross section, which is what he wants for this design.

To form the end balls, Modibo works over the edge of the anvil, rotating the bracelet as he delivers precisely aimed blows to create a polygon with 16 sides. Modibo then strikes the facets with lighter blows, still rotating the bar as the form nears completion. The result is a smooth round ball.



From time to time, Modibo checks the length between the ball and the center plate using the side of his anvil to make sure that both sides are the same. The bracelet is annealed regularly to recover its malleability and ductility.

Modibo works several bracelets at a time and anneals them all at once. He lets them cool off slowly in the fresh air. I have also seen Tuareg jewelers cool work by burying it in the sand. Alternatively, some jewelers forge while the metal is still hot, especially when the bracelets are big. It is important not to cool the silver too rapidly, for instance by quenching in water, because this can make the metal brittle.

The sections between the end balls and the center plate are elongated by hammering in the same fashion—one or two strokes on one side then turned a quarter to apply the same number of strokes. Some bracelets have a transition element between the central panel and the shafts leading to the end spheres.



*Modibo breaks some old cement onto his anvil for a better grip.*



*With light strokes, he defines the shape and smoothes out all the surfaces.*



*The forged bracelet before filling.*

The bracelet is then lightly hammered on all its facets, then filed and sanded until it becomes smooth. Of the many ways to decorate a finished bracelet, perhaps the most common is to file geometric designs.

Once this is done, the bracelet must be formed into a round or oval shape. To do this, Modibo uses an indentation in his wood stump. He places one of the end balls inside a concave form and strikes it with his hammer just behind the ball, moving slowly toward the center. This is repeated from the other end. When both sides are done, Modibo positions the center plate in the concave form and strikes just before the plate on each side and then moves toward the center. At this stage the bracelet is almost finished. The final touches are done on the horn of the anvil, where wooden tools are used to prevent damage to the silver. Here the bracelet is struck with the wooden hammer handle until Modibo achieves a perfect form.



*The round shank of the bracelet is filed to create a design.*



*To bend the bracelet, Modibo uses an indentation on his stump.*



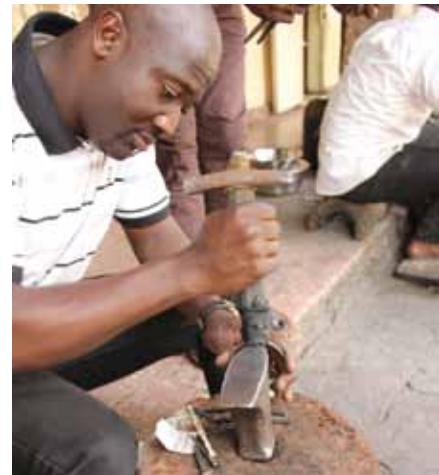
*The bending process continues, working from the center outward.*



*Slowly the bracelet takes on a symmetrical curve.*



*As the form nears completion, the blows are softer.*



*Modibo uses the wooden handle on the horn of the anvil to smooth the curve.*