

The Jèmè-irin, an example of the development of blacksmith clans : social status and iron working



Caroline Robion-Brunner
Frankfurt, 10 september 2008

The issue of this session is African Iron working : its organisation, its production and its diffusion. I have chosen to focus my paper on development of a blacksmith clan : the Jèmè-irin smiths in the dogon country.



“Human Population and Paleoenvironment in West Africa”

- Documenting the changing relations of man and his environment through time
- Interdisciplinary : archaeology, geomorphology, archaeobotany, ethnohistory, ethnoarchaeology, linguistics ...

Archaeometallurgy section

- Regional and diachronic understanding of iron production on the Dogon country
- Assessment of its social, economic and environment impact

The work presented here is part of the international and interdisciplinary research project “Human population and palaeoenvironment in West Africa”, directed by Eric Huysecom.

In the framework of this program, the question of the development of the iron production in the Dogon country and its ecological and social impacts are investigated since 2002 with annual field expeditions. (Serneels (V.), Robion-Brunner (C.), Perret (S.), 2006. La sidérurgie en pays dogon : problématiques, premiers résultats et perspectives. Etudes Maliennes 65 : 113-126.)

Our research project aims to characterize and to understand these technologies, as well as the socio-economic structure related to local iron production and consumption. It is our belief, that such an approach should integrate all aspects of the production chain, from the ore extraction to the iron smelting and transformation to finished objects. It is of particular interest to study iron smelting technologies in an area where traditional iron making still took place a few decades ago, as we get access to information that would be extremely difficult to identify by archaeological means alone. (Robion-Brunner (C.), Perret (S.), Serneels (V.), Dembélé (A.), Huysecom (E.), 2006. "A thousand years of iron metallurgy on the Dogon country (Mali) ". In : 18^e Congrès de la société des Archéologues Africanistes. Calgary : SAFA, 2006 (article en ligne consultable à l'URL suivante : <http://cohesion.rice.edu/CentersAndInst/SAFA/emplibary/Robionetal.C.SAfA2006.pdf>)



Extensive approach

- Archaeological surveys
- Ethnohistorical interviews
- Description of artefact
- Characterization of metallurgical waste assemblage

Intensive approach

- Excavations
- Quantification of the iron production
- Carbon dating / historical interviews
- Anthracology / environmental impact
- Archaeometric investigation of the metallurgical material

Our research is based on an extensive approach including systematic prospecting and ethnohistorical interviews, associated to punctual excavations and archaeometric investigations on selected sites.

Objective



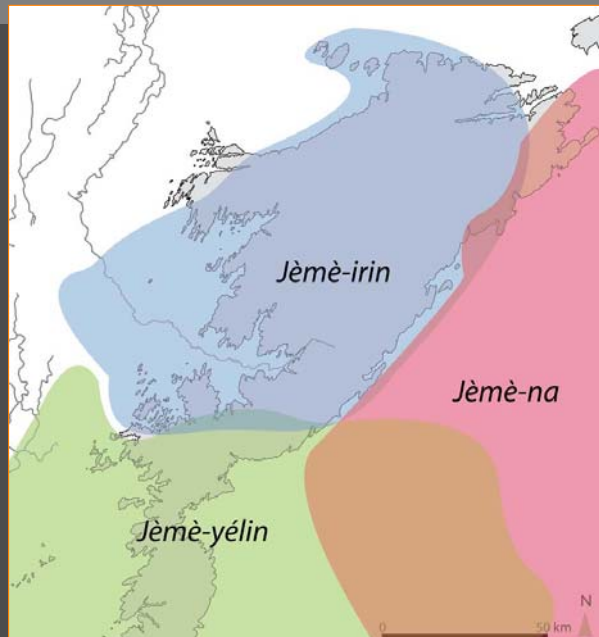
- To know and to understand social and historical reasons of the formation of craftsmen clans in West Africa.

The discussions about specialization in iron metallurgy and formation of blacksmith clans in West Africa hold a capital place in current research. The issues, linked to the technical evolution, the transmission of knowledge and social change, are important. Indeed, even if the current situation is rather well understood, little is known about the social and historical reasons of the formation of craftsmen clans and the reasons of the presence or not of such systems in a society.

State of previous research

On the Dogon country

- Jèmè-irin do only smithing
- Iron smelting sites are only near the cliff and in the Seno plain.

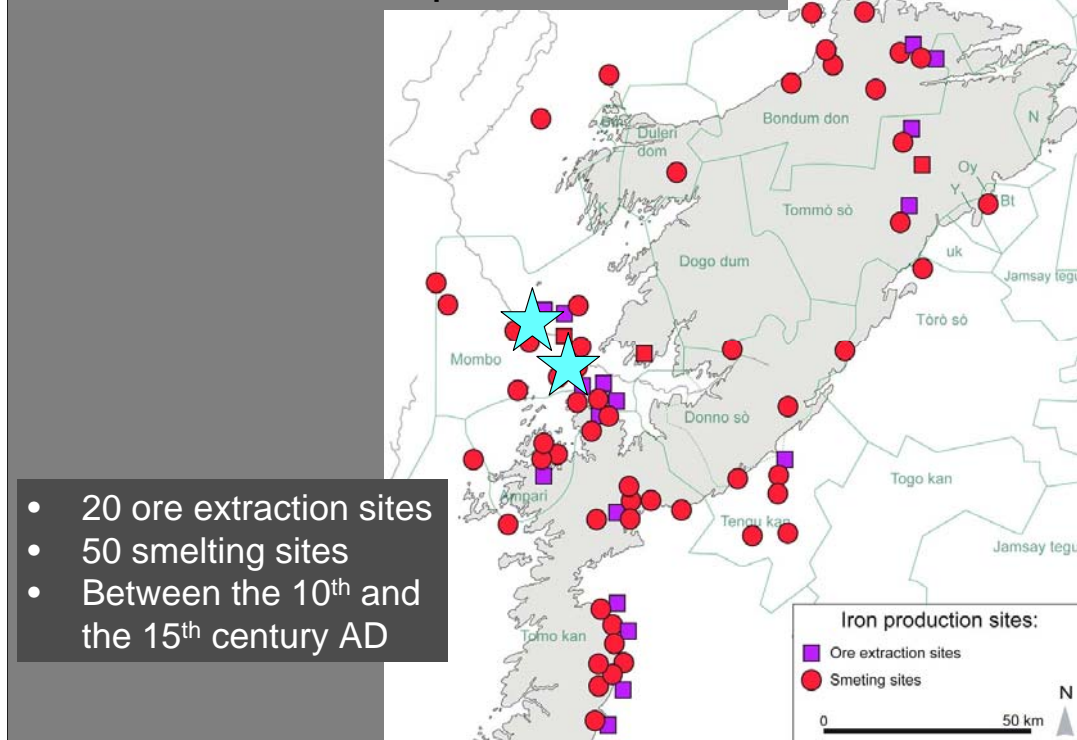


D. Paulme (1940), B. Martinelli (1992, 1993, 1995, 1998, 2002),
E. Huysecom (2001, 2003), A. Mayor et al. (1999)

In the Dogon country, three castes or clans are distinguished. This classification is based on geographic localisation, technical knowledge and social status. The Jeme-irin do only smithing, while the Jeme-na and Jeme-yélin perform the whole *chaîne opératoire* (extraction, smelting and smithing). Past research assumed iron smelting sites existed only near the Bandiagara escarpment and in the Seno plain, while they were thought to be missing on the plateau.

These conclusions were based on few enquiries conducted in few villages.

Localization of iron production sites

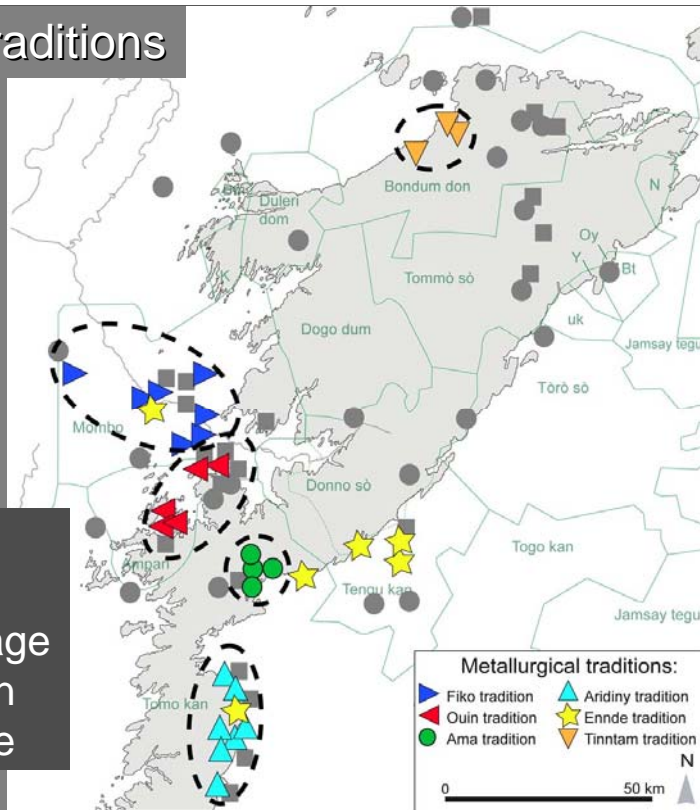


During our seven missions, we have been locating and visiting about twenty ore extraction sites and about fifty smelting sites on the dogon plateau and near the escarpment.

From oral tradition records, the smelting activity ceased during the last century but it had been operating on a large scale before that. Some sites are dated to the period between the 10th and the 15th century AD and in Fiko, a lower layer in an old slag heap provided an isolated date around the 6th century AD. Stratigraphically, older levels have been recognized but are not yet dated. (Serneels (V.), Perret (S.), Robion-Brunner (C.), 2007. Iron bloomery production in the Dogon Country (Mali / Western Africa). In : Early Ironworking in Europe II conference, 17th-21th september 2007, Plas Tan y Bwlch Occasional Paper No. 4 : 59-61.)

6 technological traditions

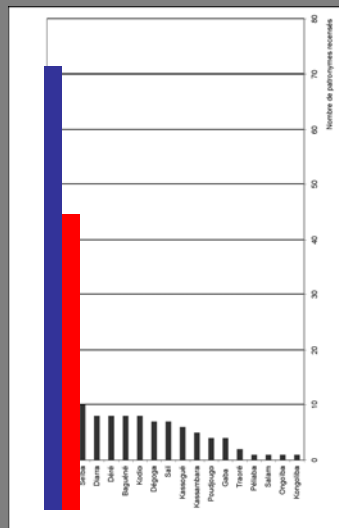
- Furnace design
- Metallurgical waste assemblage
- Site organization
- Amount of waste



The smelting sites are quite variable regarding the types of furnaces, the assemblage of wastes, the spatial organization and the volume of slags produced. At least six different technological traditions can be distinguished using the combination of those criterions. They are named following the names of investigated sites (Ouin, Fiko, Ama, Tinntam, Aridiny and Ennde). Each of these traditions seem to be limited to a single linguistic area.

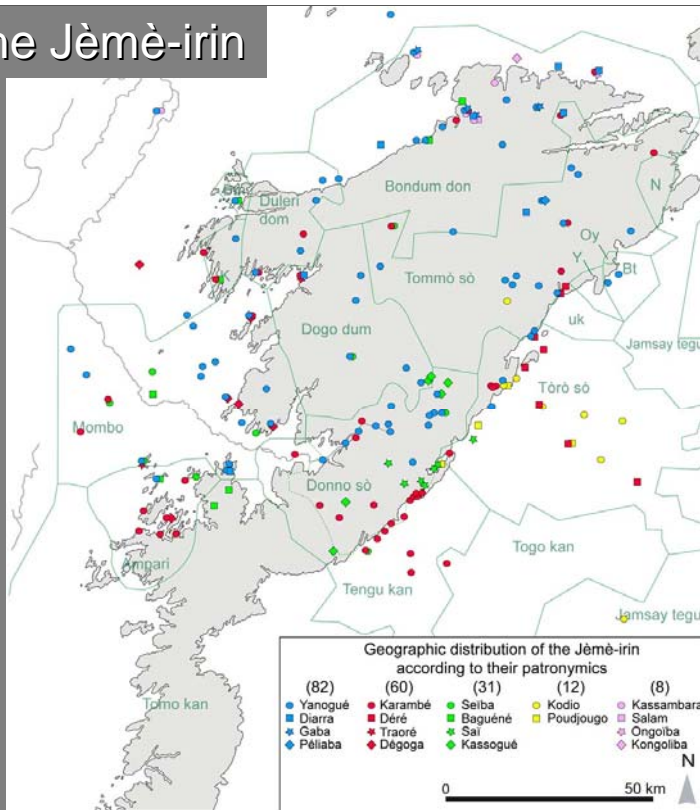
We wondered if such a technological diversity in a small area could be linked to the formation of blacksmith clans. To answer this question, we have chosen to focus on the example of the Jèmè-irin.

Patronymics of the Jèmè-irin



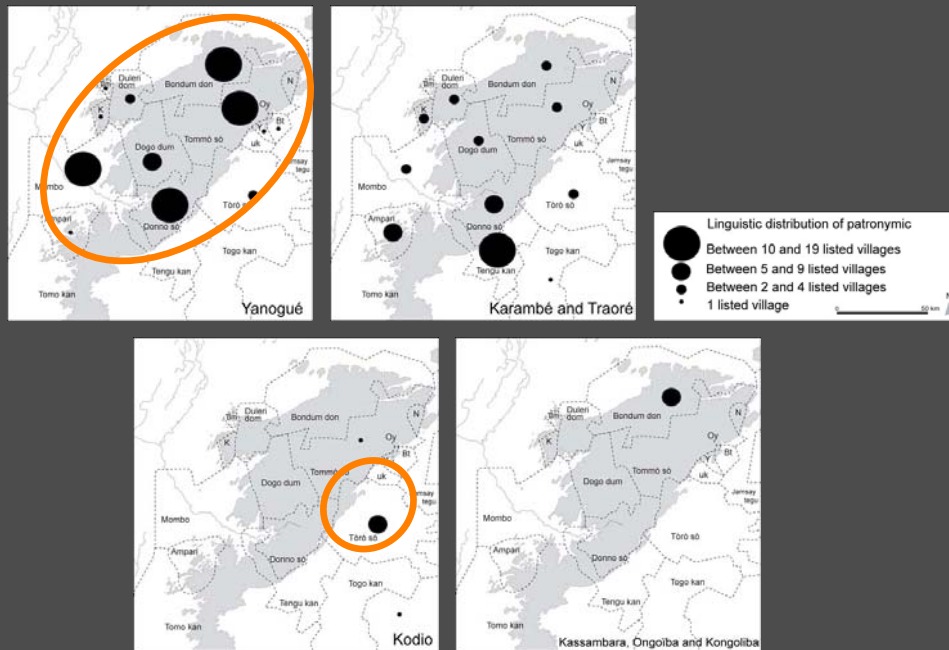
Yanogué : 69/193

Karambé : 43/193

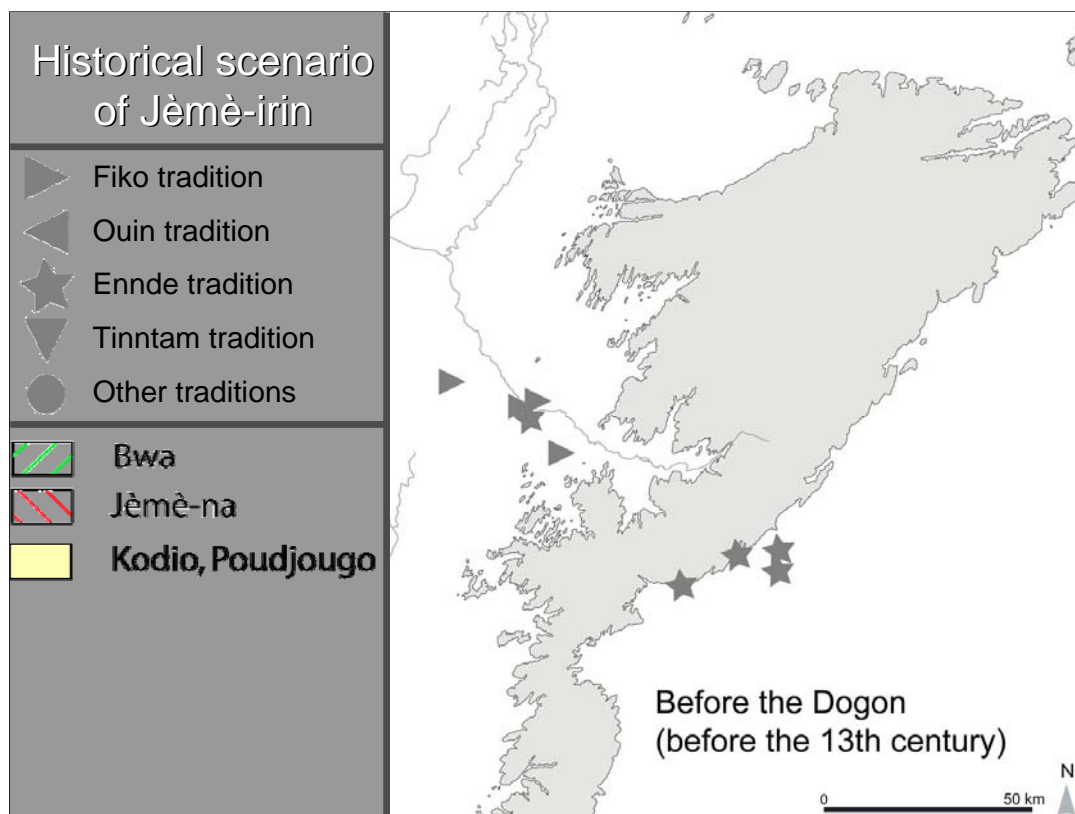


The *Jèmè-irin* are a clan of blacksmiths who live on the plateau. At this stage, 18 patronymics could be identified. As the graphic shows, the most frequent surnames are *Yanogué* and *Karambé*.

Geographic and linguistic distribution

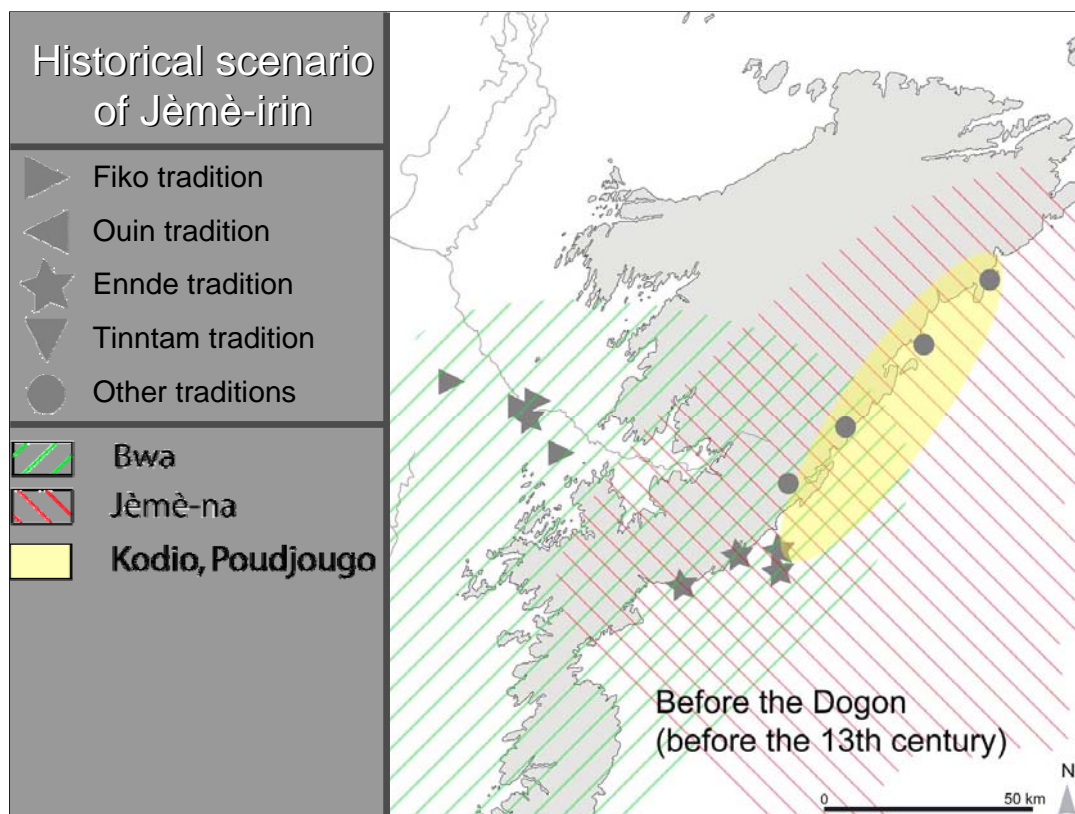


The eighteen patronymics of Jèmè-irin are not equally distributed in the whole territory. These maps show the distribution of different surnames and the languages. We can see that the *Yanogué* can be found almost everywhere on the plateau, whereas the *Kodio* live along the escarpment in a small area. We think that the geographic distribution of each surname can be a good indicator of the distinct linguistic zones where the blacksmiths arrived and/or where they acquired their status of specialized craftsman. With the information derived from our interviews, we can reconstruct the process of formation and the story of the blacksmiths.

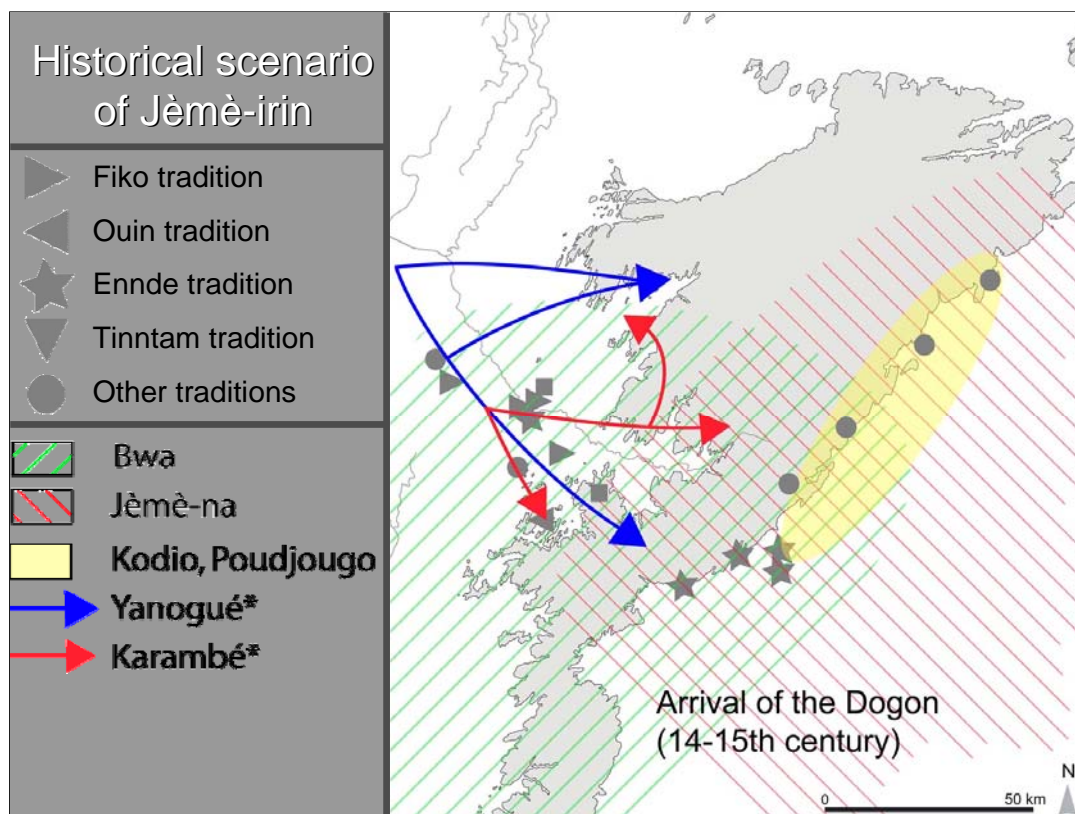


We propose the following historic scenario (Robion-Brunner, (C.), 2008. Vers une histoire de la production du fer sur le plateau de Bandiagara (pays dogon, Mali) durant les empires précoloniaux : Peuplements des forgerons et traditions sidérurgiques. Genève : Université de Genève (thèse de doctorat)) :

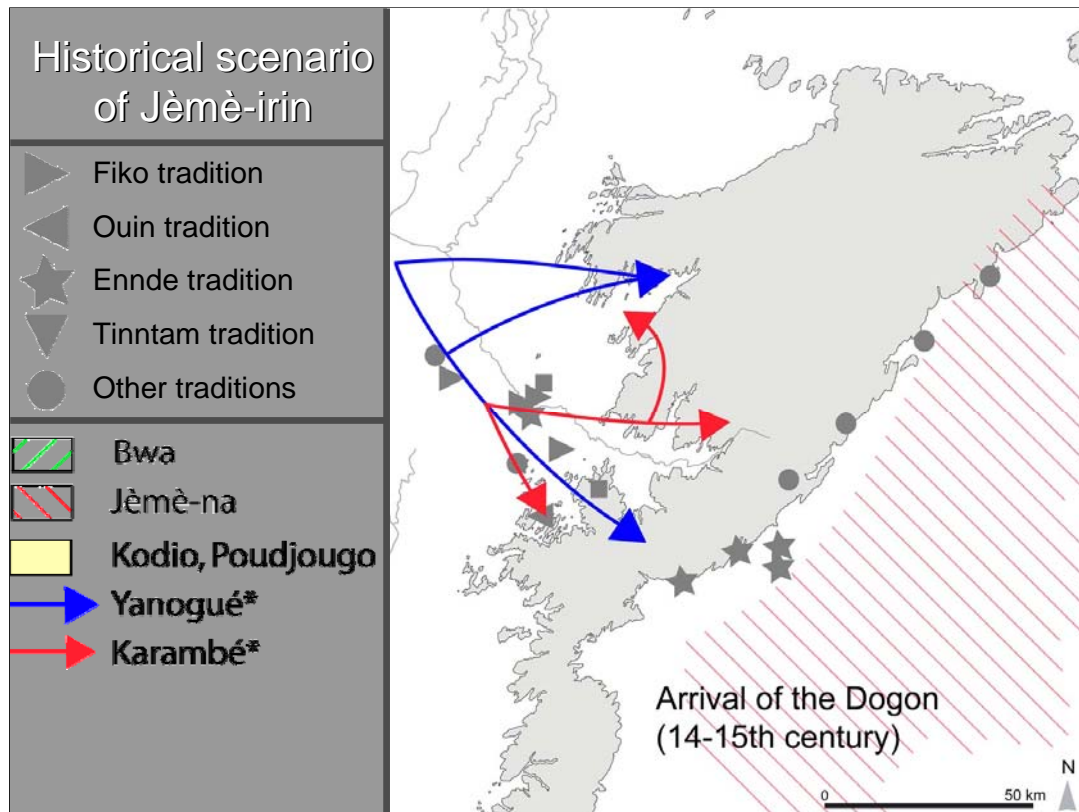
Before the Dogon arrived, small and large scale smelting took already place in this area. The introduction of iron smelting is therefore not related to the arrival of the Dogon. However, we don't know yet to whom exactly these ancient activities were linked to.



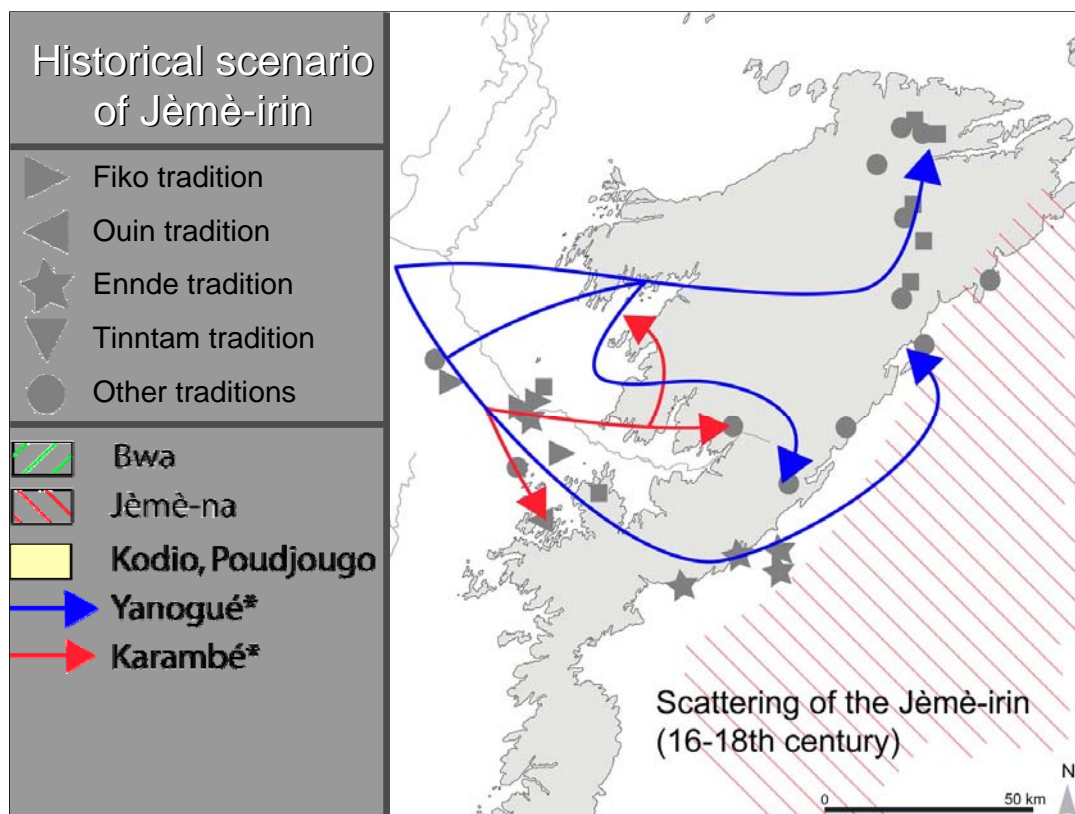
They might belong to the Bwa people concerning the Fiko, and the Jémé-na concerning the Enndé traditions. Certain mythical accounts suggest that all along the escarpment, the people preceding the Dogon mastered the whole “chaîne opératoire” of the iron metallurgy.



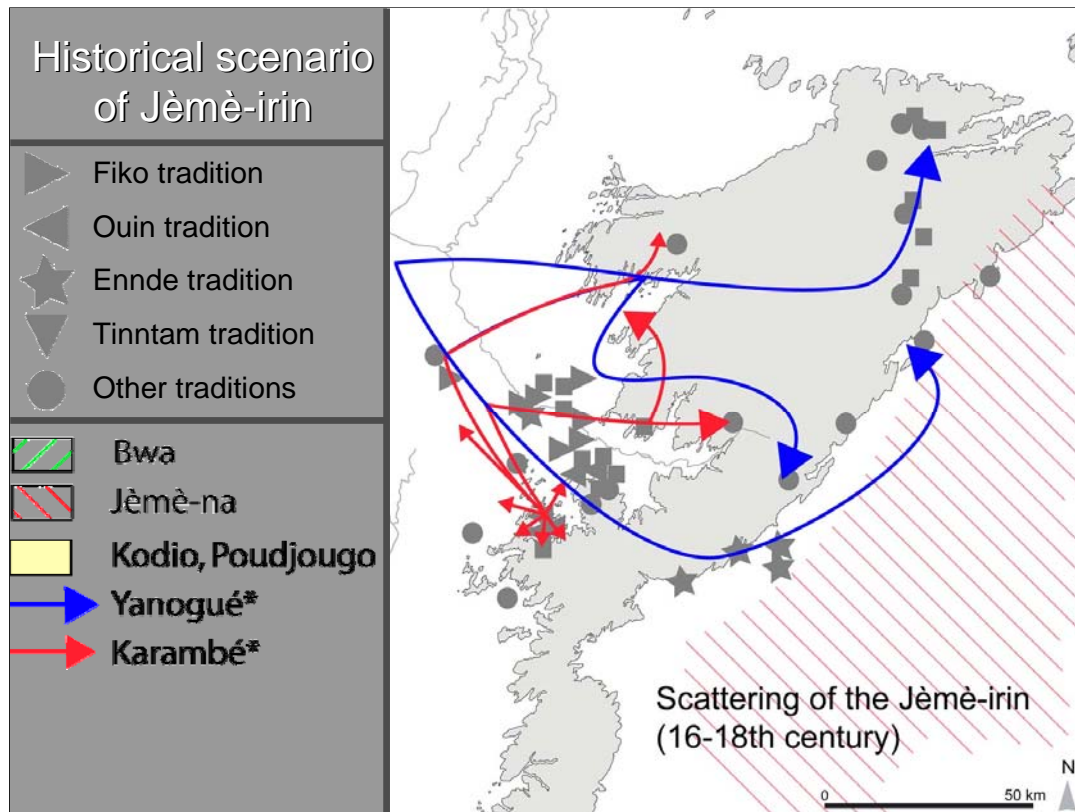
Ethnohistoric data show a phase where new populations arrived on the Bandiagara plateau from the west. The craftsmen accompanying or joining these Dogon installed themselves in the Pignari. However, we can not see major changes in the metallurgical techniques taking place at this stage.



Therefore, we believe that the Bwa iron workers and ironworking people living near the cliff were integrated into the clan of the Dogon blacksmiths, adopting a status of casted ironworkers and continuing to produce iron as they did before. The arrival of the Dogon no doubt was at the origin of population displacements.

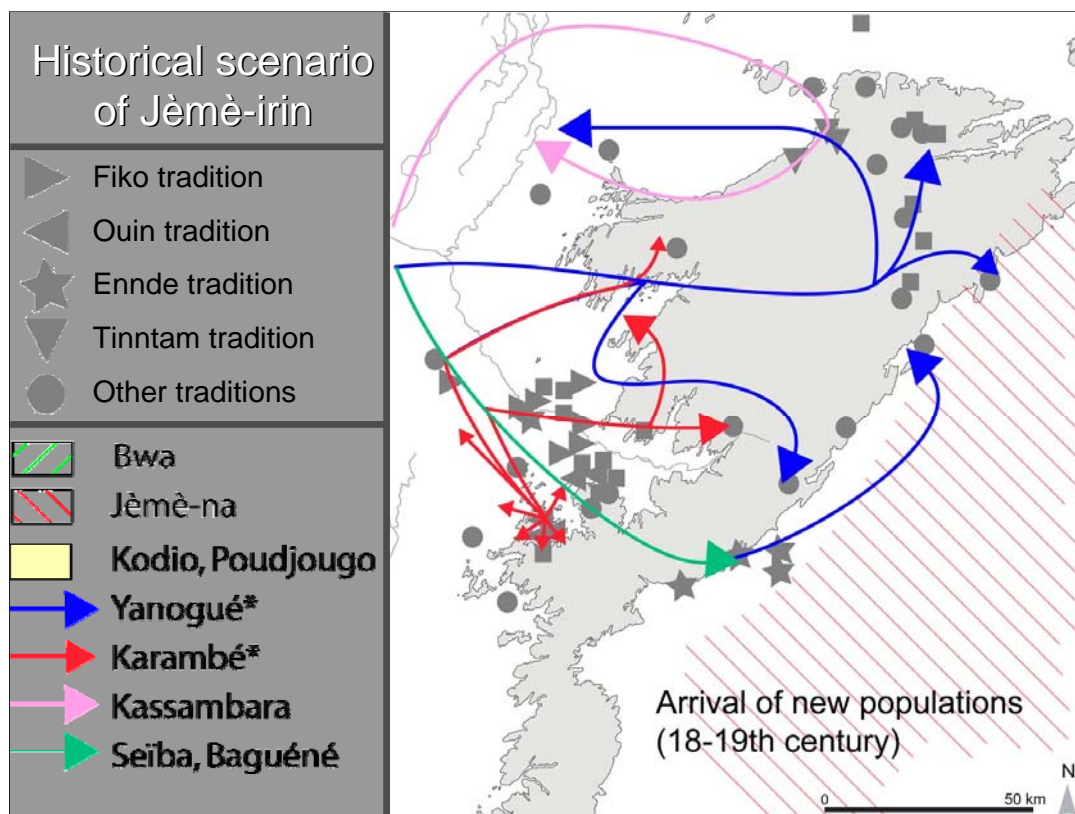


From the 16th century onwards, the displacements of the blacksmiths on the Dogon plateau seem to accelerate. The Dogon dispersal and their territorial expansion led to a increased demand in iron, and therefore in smiths. Several farmers sent their sons for apprenticeship to the blacksmiths, and finally got integrated into the blacksmiths castes.

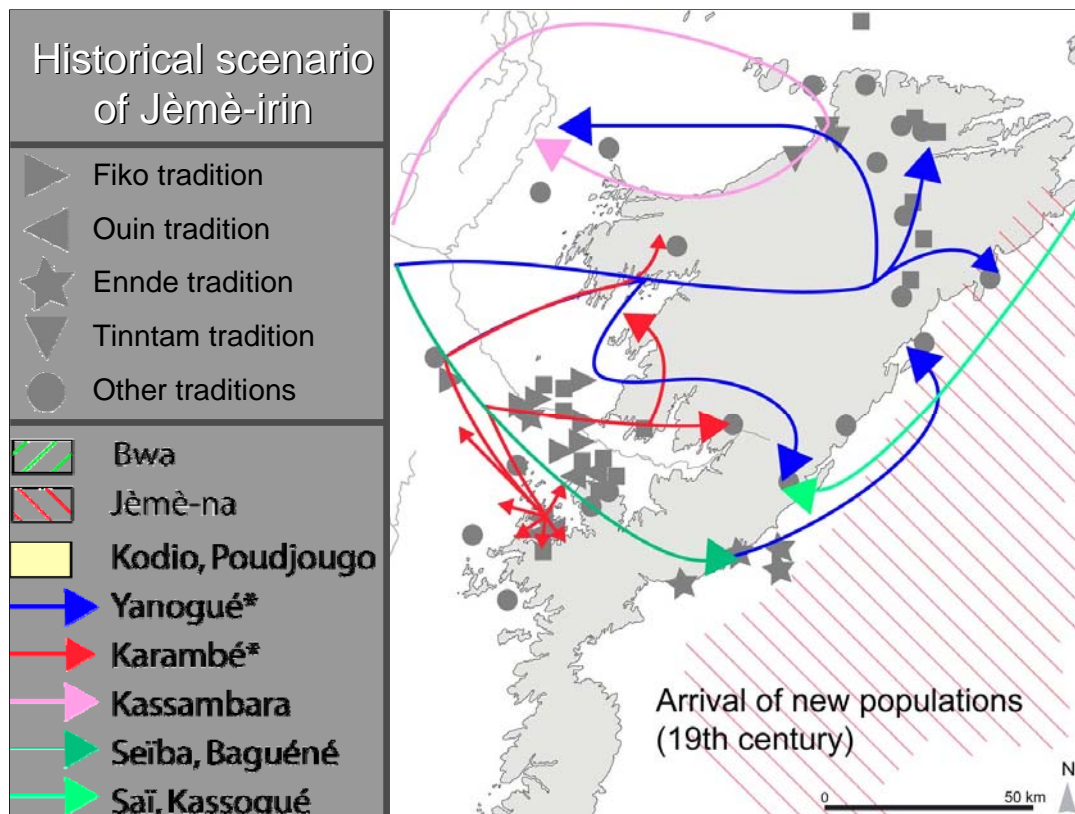


An analysis of the migration patterns shows a convergence of the displacements paths towards the areas of intensive iron production such as the Pignari. The oral accounts mention large scale iron production centers where the blacksmiths met once a year. We think this convergence led to the formation of the Jèmé-irin clan. Such, this clan incorporates individuals from many different social and ethnic origins (autochthonous farmers, external blacksmiths, incorporated Dogon farmers).

This period also sees the emergence of several new technological traditions on the Bandiagara plateau. This phenomenon might be the result of an identitarian individualization.

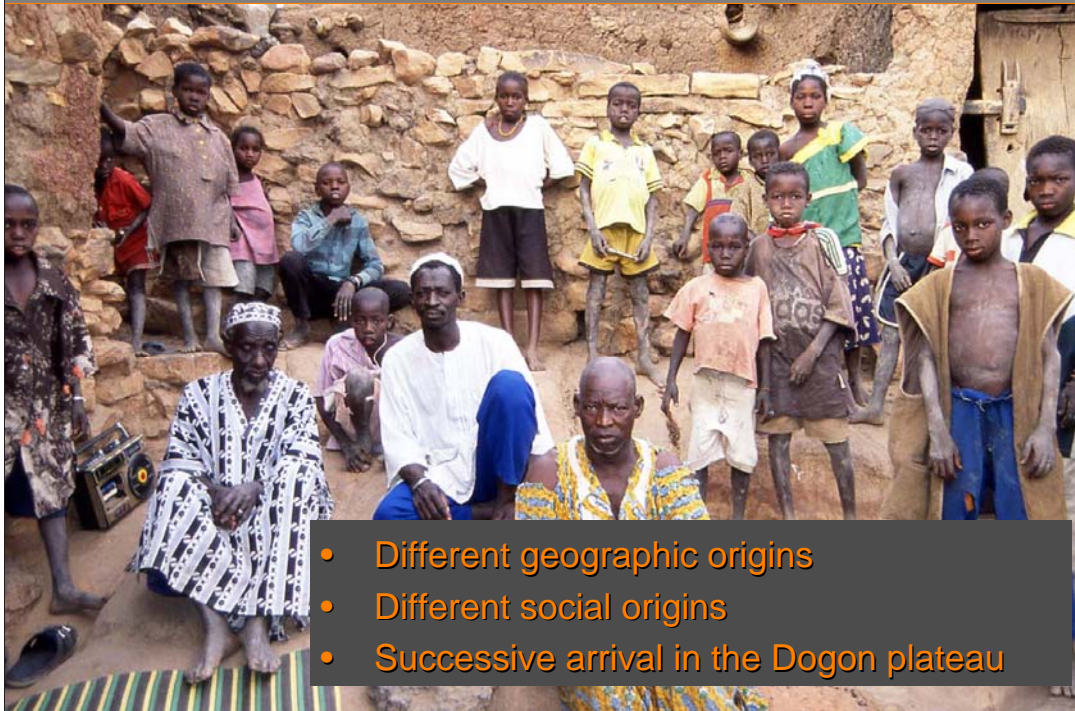


The 18th and 19th century are characterized by numerous conflicts in the Niger belt (expansion of the kingdom of Ségou, establishment of the fula empire of the Macina in Amdallaye), leading to new population displacements.



Noble populations, casted and servile, took refuge on the plateau, some of them integrating the Jèmé-irin, but obviously this did not induce any changes in the iron production. When the French arrived around 1900, traditional iron smelting starts to decline. Local iron is replaced by imports and the recycling of scrap iron.

Migration patterns of the Jèmè-irin



Through the actualistic approach we adopted, we were able to establish a certain correlation between the patronymics and the Dogon languages. Indeed, the spatial distribution of the Jémé-iron surnames on the Dogon plateau has proven to be a good indicator to distinguish the linguistic areas where the blacksmiths arrived, and/or where they acquired their specialized craftsmen's status. The historic approach, consisting to study the Jémé-iron populating through the analysis of the patronymics, shows that this clan does not possess a monolithic history nor process of formation. The smiths composing this entity have:

Different geographic origins

Different social origins

Different dates of arrival on the Dogon plateau.

Concluding remarks



- Iron was produced on the plateau of Bandiagara according to a varied technological tradition.
- The iron production began before the arrival of the Dogon group.
- The process of formation of blacksmith clans is complex.

It lead to a technological variability and it's not possible to link clans or patronymics to particular smelting technologies.

The ongoing study sheds a new light on the iron production and on the formation of blacksmith clans on the Dogon plateau.

First of all, we could show that Iron was produced on the plateau of Bandiagara. This activity has now been recognized as an important feature in most parts of the area but at very different levels of production and with a surprisingly high technological variability.

Secondly, the iron production in the Dogon country is not linked to the arrival of the Dogon. Archaeological evidence shows that Iron working began long before the Dogon established themselves in this area.

Finally, our research shows that the processes of formation of craftsmen castes are complex and varied. Craftsmen's clans are not monolithic and include several populational groups. The Jèmè-irin were constituted from indigenous populations of the Dogon plateau, successively joined by foreigners originating rather from the interior Niger.

We think this process lead to a high technological variability in iron working. It is not possible to link clans or patronymics to particular smelting technologies.



Knowledge :

Sébastien Perret, University of Fribourg, Switzerland

Vincent Serneels, University of Fribourg, Switzerland

Eric Huysecom, University of Geneva, Switzerland

Ancé Tessougé, Dimmbal, Mali

I Would like to thank the blacksmiths for their friendship and their trust for sharing their history with me.