

STABILISATION OF **THE GREAT MOSQUE**  
AND **SEVEN MOSQUES**  
ON THE CLIFF OF **BANI**







TO LINK CULTURAL HERITAGE, LOCAL COMMUNITY AND SUSTAINABLE DEVELOPMENT

An incredible architectural complex of one great and seven subsidiary mosques on a cliff. The story linked with the site attracts attention of local people as well as strangers... Unfortunately, the meteorological and political conditions endanger this cultural treasure.

For decades, the community was not able to maintain all mosques in once, then obviously the priority was given to the Grande Mosquée and the small mosques on the cliff were neglected.

The good preservation is linked with the restauration without losing the unique appearance and with keeping sustainable maintenance. The goal of the project is to preserve the exceptional site and traditional construction techniques, to document the story of living traditions and to raise awareness about earthen architecture in the region.

Briefly, to preserve the mosques means to repair their roofs and loadbearing structures to protect them from the weather. To preserve traditional construction techniques means to engage all generations in restoration of the mosques and make their maintenance sustainable, so that local community might care about them independently. To document the story of living traditions engages the creation of printed publication. To raise awareness is to organize local exhibitions and presentations.

calling tower of the Great Mosque  
photo: PV Cel © 2013





## IN WEST AFRICA

Tourists are lured to take a slow boat to Timbuktu, to camp under the Sahara's starry skies, to hike through ancient Dogon Country, to discover cosmopolitan Abidjan and to hang out Ghana's palm-fringed beaches... but the essence of this incredible continent isn't in any desert, mountain or lake. It's the spirit of the PEOPLE – pushing, shouting, sweating, holding, dancing, singing and laughing – that infects so many visitors with a travel bug so powerful they'll never stop coming back, often without any explanation and against all sense or reason.

young people in Bani  
photo: N Cis © 2010



BURKINA FASO  
"The country of entire man"

## IN SAHEL

A narrow band of the semiarid land south of the Sahara is a meeting point of civilisations... Arabs, Persians, French, Sudanese and many nomadic ethnies merged together and created the unique cultural diversity helping to resist wars, famines, droughts, exploitations and doubts... The interconnection is further illustrated by the social practice called the joking relationship. It authorises, or even requires, members of certain ethnic groups to make fun of others, without any result or offence... These verbal confrontations are actually social means of relaxation from hard life.

lifestyle in Burkina Faso  
photo: M Sol © 2012



## INTRODUCTION

## IN BURKINA FASO

Situated in the heart of West Africa, Burkina Faso is a landlocked Sahelian country between Mali, Niger, Bénin, Togo, Ghana and the Ivory Coast. Rather less affected by mass tourism and with few natural resources attractive to international concerns, the country has kept its authenticity. Burkina Faso has a very RICH CULTURAL heritage. From one region to another, lifestyles, customs, activities, crafts and festivals have real specifics. Music and dance naturally occupy an important place in the culture of Burkina Faso.





BANI

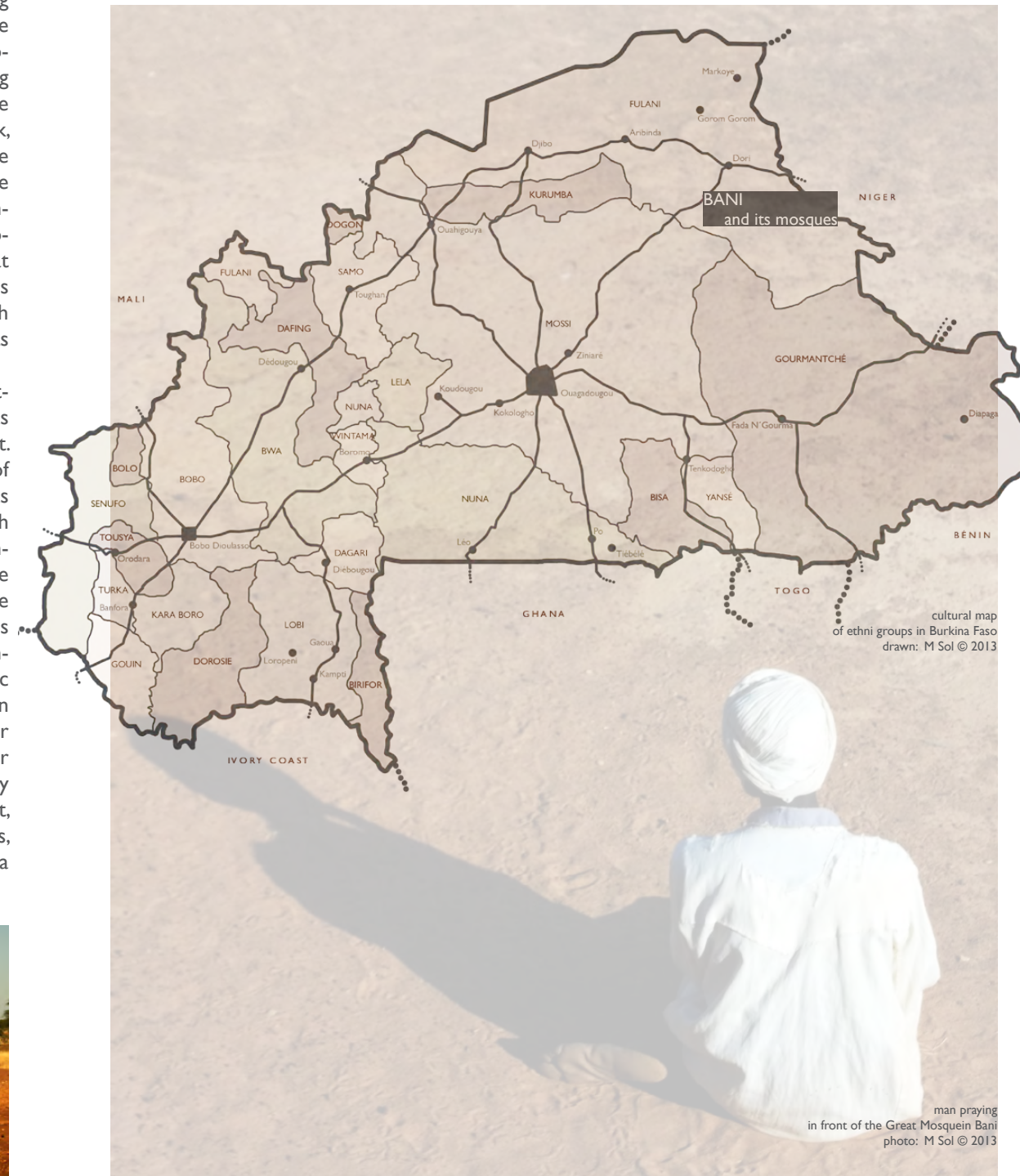
Sahel landscape  
photo: M Ond © 2012

The charming story of Bani has been narrated for decades, fathers to sons. It has never been documented, never capted by pen. There is no wonder, only the latest generation can comfortably write and read and will be able to appreciate its roots and individuality within the globalisation.

The story concerns a small village Bani situated 240km on the way from Ouagadougou to Gorom-Gorom, in the northern part of Burkina Faso, at the edge of Sahel, that has grown up to population of 4000 inhabitants in these days. How, when and why the serie of seven breathtaking mud-brick mosques was scattered around the village with the dominating mosque at the heart of Bani...

The scenery of the Bani surroundings charm with its peace and silence that is interrupted only by neighing donkeys. The flat landscape calls up fantasies about nomads and their everlasting journeys. No matters if one travels on the camel's back, on the saddle of motorbike or in the latest 4x4, the scene looks always breathtaking regardless how monotonous it might seem at the first sight. The sun is called the artist here with the dusk and dawn as its masterpieces....

The Sahel has always attracted a population as various as its environment. The miraculous story of Bani is fully unique, it was spread by word of mouth and people have been coming to settle down here from all the corners. The Mossis next to the Peulhs and the Fulanis, the farmers next to semi-nomadic cattle herders. People in Bani, as well as in any other isolated village, work for being self-sufficient. They cultivate their own millet, sorghum, sesame, peanuts, etc. The cattle herding is a natural thing.



man praying  
in front of the Great Mosquein Bani  
photo: M Sol © 2013



Sahel landscape  
photo: M Sol © 2012



THE STORY OF MOSQUES

According to narrations, the construction of the mosque dates back to the thirteenth century. They were simply made of stones by man. The population had contributed materially - every man brought its stone.

In 1831, Bani had about 500 inhabitants. There was only one mosque made of stones, at the entrance of the village. At this period, a cheick (the representation of God) settled down in the village for four years. The cheick foretold that between 1931 and 1975 a man of God would arrive to build seven mosques on the hill, situated in town.

A century further, in 1918, Cissé Amed Ama ("a saint", Al hadj Mohamed) was born in a town not far away from Bani. At an age of seven, without ever studying the Koran, he started to talk like a prophet. At ten years old he left home and went in the bush for 40 years to pray to God, only coming home to visit his wife and family.

In 1972, Cissé Amed Ama received a vision which showed him to build seven mud-brick mosques at the cliff of Bani.

One year later he came back to his hometown and told villagers about his vision. Soon, he convinced some people to follow him to

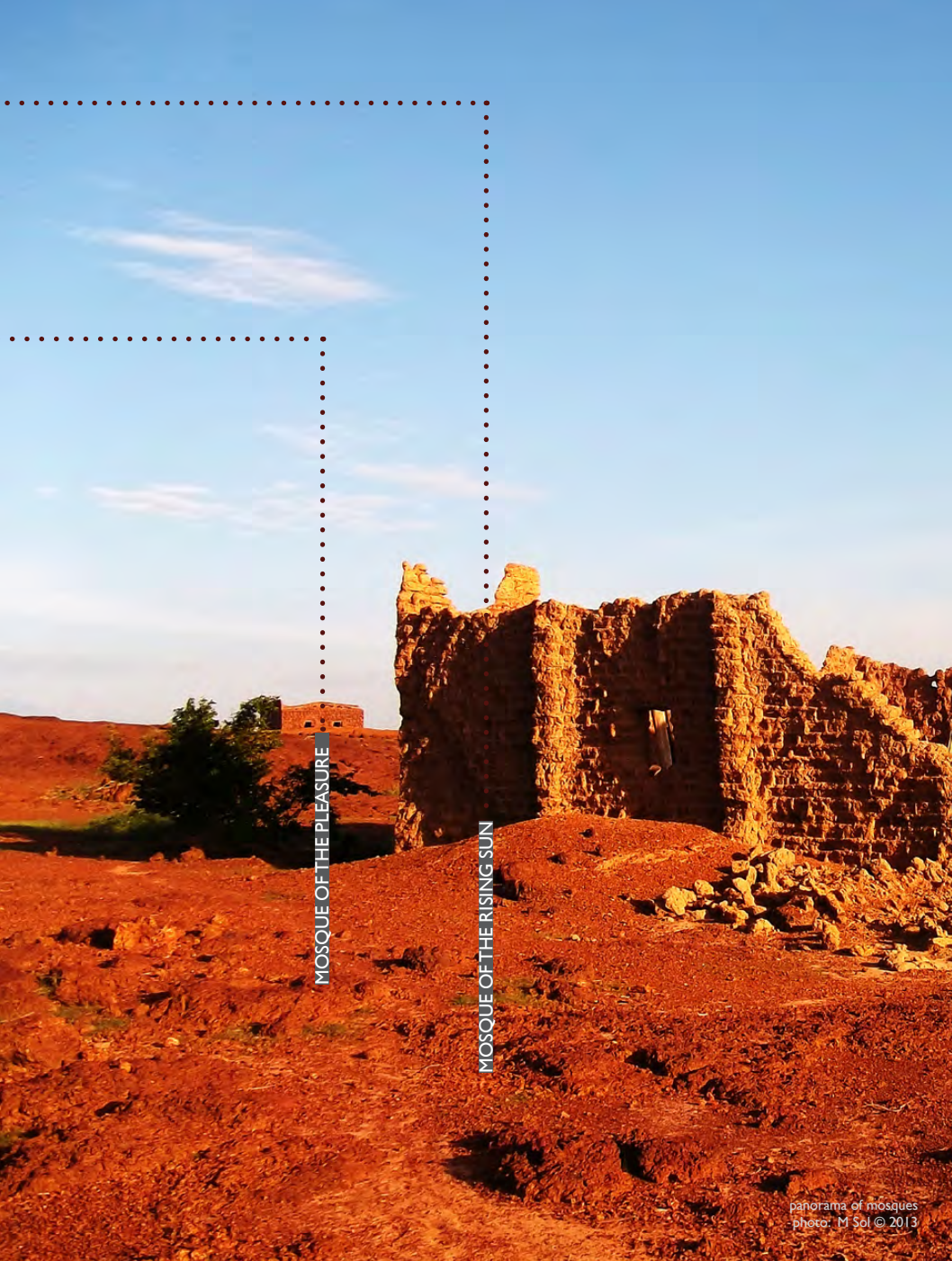
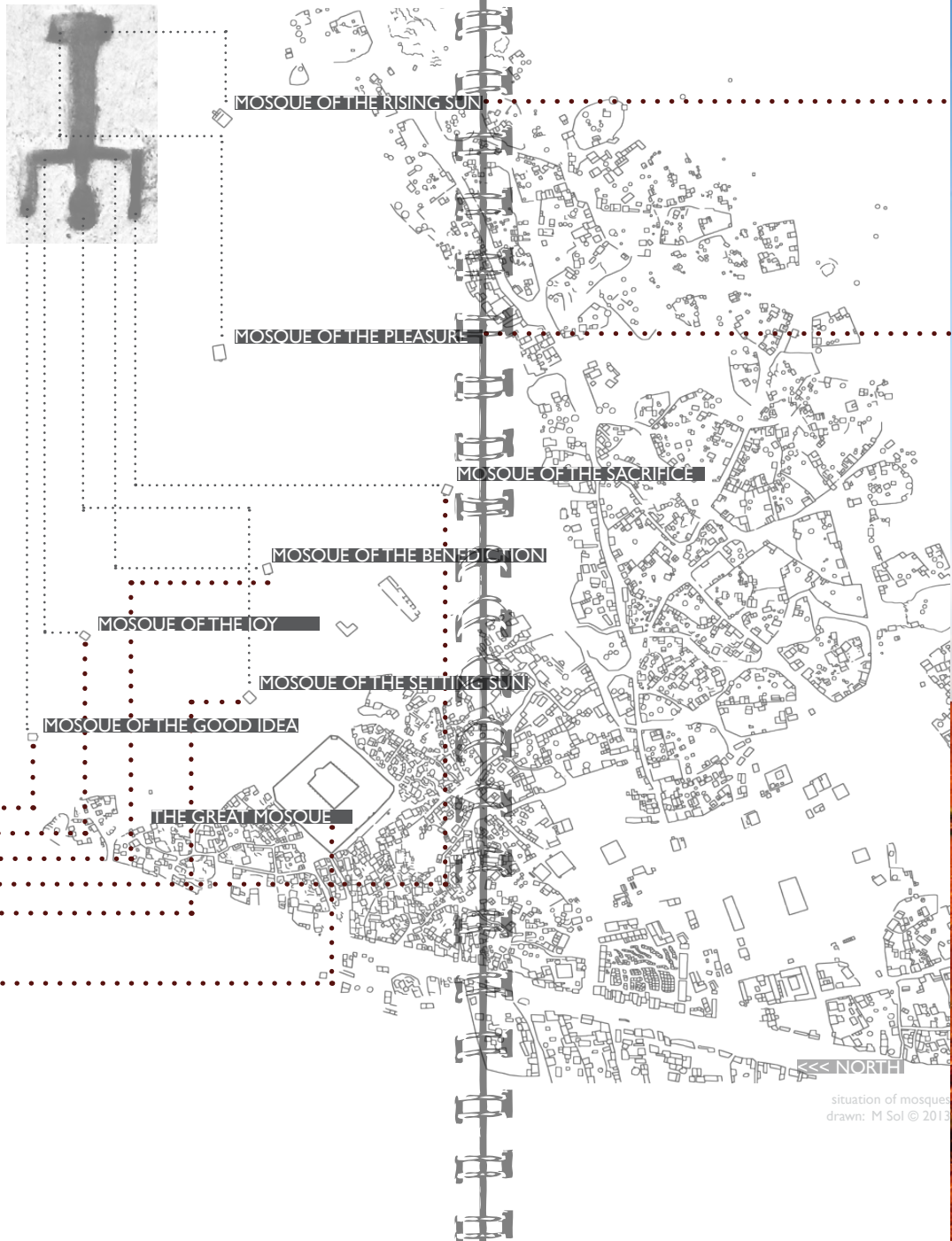
Bani where in 1973 he installed himself permanently.

In 1975 Cissé Amed Ama decided to take off for an amazing experience - to go to Mecca by foot. This performance created significant reputation and he got to be known as a prophet.

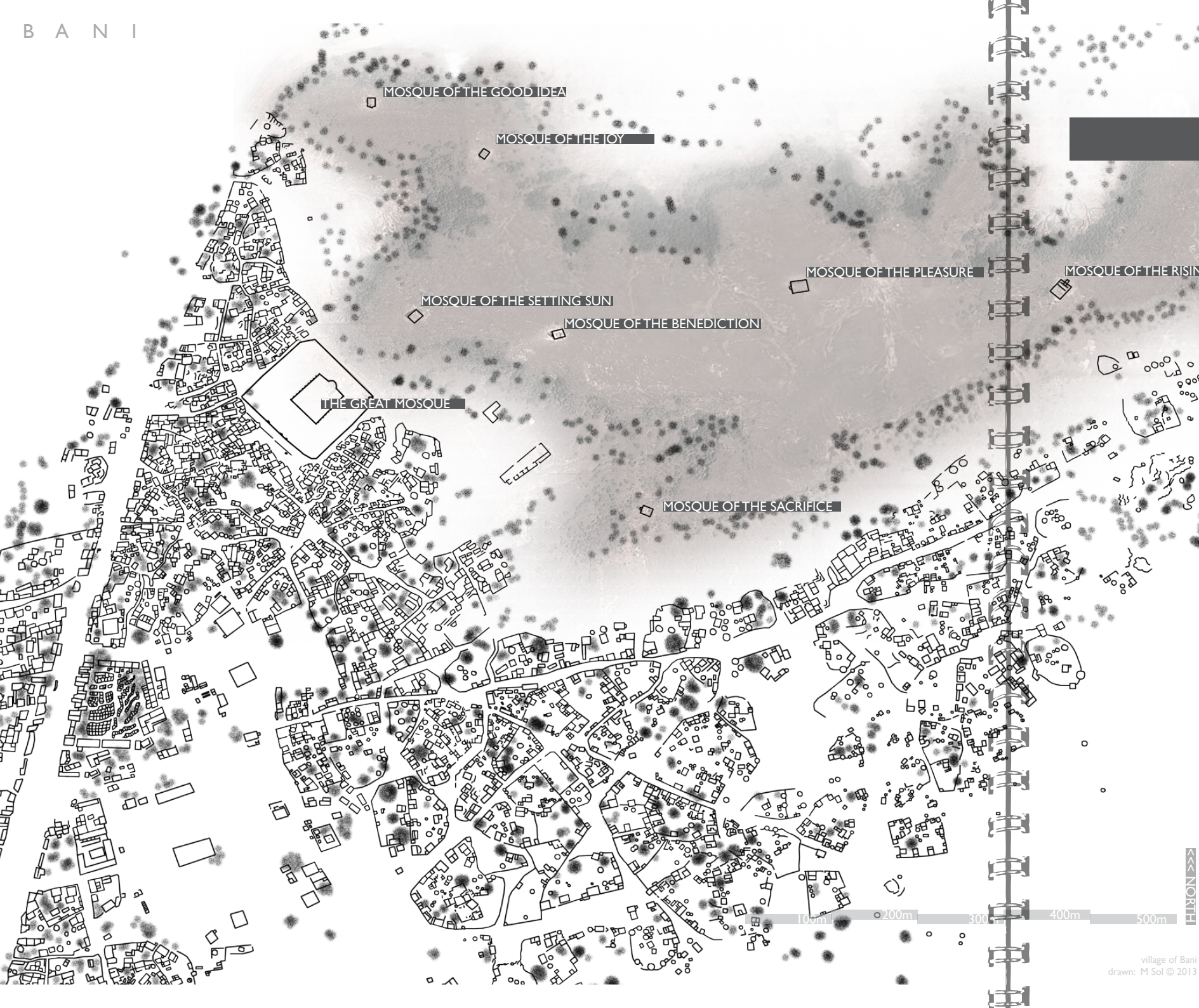
From 1978, the inspired people from Burkina Faso and other West African countries had been coming to participate voluntarily on The Grande Mosque construction. More than 5000 people were helping for a period of over 1.5 year. Since then, the villagers continued the construction of the other seven mosques to show their adoration to God.

In 1986 the work was finished. Seven small mosques on top of the hill directed to The Grande Mosquée. The hill on which the mosques are built represents a man praying to God with his arms bent above his head.

Up to these days The Great Mosque serves for everyday prayers. It celebrates its anniversary every 17th day of the Ramadan month. The other 7 mosques have been playing an important role during the main Islamic festivals such as Ramadan, Feast of the Sacrifice Tabaske and the birthday of Mohammed...







village of Bani  
drawn: M Sol © 2013

## THE FACE OF MOSQUES

Once a man climbs the cliff to explore seven mosques, once he enters the ruins of the Mosque of Good Idea and he can see through it and count the remaining mosques, and once he enjoys the sunset staring at quiet village with Grande Mosquée as impressive dominant, once he drinks tea sitting on a warm stone under the starry sky... he feels like a spectator of a rarity deserving PRESERVATION, of an exceptional testimony to a traditional culture, of an outstanding example of architectural ensemble.

### PRINCIPLE OF PLAN

There is a cliff above Bani, a rock formation that looks like a praying muslim from the sky. The Grand Mosque is constructed under the cliff and it faces Mekka (more precisely La Kaaba, east-north-east). However, 7 mosques on the cliff are oriented to Grande Mosque (west). Each mosque has its own name and consecration. It is said that the number seven is related to the number of days in week, but this is only a rumour of tourists...

They are built in a plan of a praying Muslim (with raised arms for the praying of the Allah invocation), each of them stands for a part of his body: a head, two shoulders, two hands, two feet.

### FIGURE

This figure is used also as a facade decoration in brick relief. This is still remarquable at five mosques. Unfortunately all of them are in very bad condition, in different state of degradation - rather severe.

### UNIQUENESS

The Grande Mosque is the place directly associated with religion, with beliefs, with traditions. The place where

people gather for celebrating all Muslim feasts. The place where many pilgrimages are destined, because the ceremonies are more festive here than anywhere else. The place where everybody is welcome. The place where the prophet has been the principal marabut - open-minded and forward-looking wise man leading crowds to built up the special complex.

### MATERIAL

All mosques, on the cliff and the great one, are constructed in the same material, except the « Left Hand » and the « Right Foot » that have been reinforced with stone (“pierres taillées” in French) so that they could resist to the weather better. But unfortunately the stone bricks didn’t adhere to the earth mortar, which contributed to accentuate the mosques degradation by the weather conditions.

### DEGRADATION

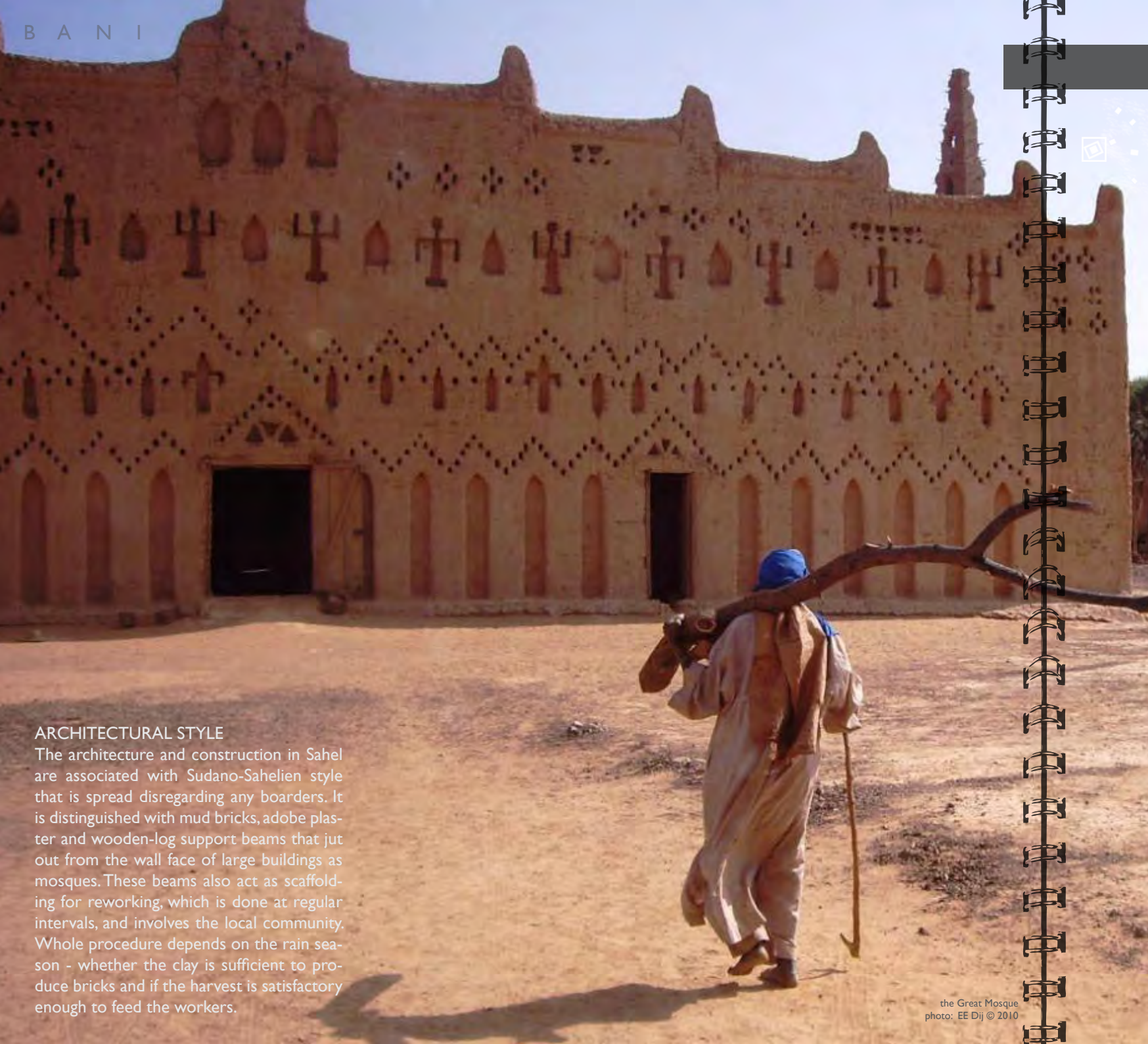
The conclusion is that the small mosques are degraded in 52%. The fragility of the site reached the moment when none of the seven mosques can be used for religious purposes. Only the Grande Mosque stays fully functional, regardless the condition of the minaret and the calling tower.

### DOCUMENTATION

There has never been any documentation about the complex architecture, no plans, no studies... only few photos by passing tourists. The governmental authorities are aware about the existence of Bani, but they are shy to cooperate and negotiate with confident people from Bani... or not?



THE GREAT MOSQUE



**ARCHITECTURAL STYLE**  
The architecture and construction in Sahel are associated with Sudano-Sahelien style that is spread disregarding any borders. It is distinguished with mud bricks, adobe plaster and wooden-log support beams that jut out from the wall face of large buildings as mosques. These beams also act as scaffolding for reworking, which is done at regular intervals, and involves the local community. Whole procedure depends on the rain season - whether the clay is sufficient to produce bricks and if the harvest is satisfactory enough to feed the workers.

the Great Mosque  
photo: EE Dij © 2010



The Grande Mosquée is also known as the House of God. The mosque is situated in the heart of the village. The plan is nearly a square; it is 35m long and 28m wide. The structure consists of 100 earthen pillars (5metres high and 1,7x1,7m) representing one hundred names of God and 4 walls whose height varies from 7 up to 10 meters. It includes 8 entrance doors, six windows and many decorations (moon, stars, prayer movements with particular use of slates, beads).

The structure is in traditional “banco” (local material based on mud, a kind of adobe). The roof is made from the local wood (of a poor loadbearing quality) and the mud layers. The calling tower (in the front and above the iman’s post) fell down in 2011, was rebuilt to its half in 2013, but anyway we can estimate its height from ancient photos - approximately 25m.

The Grande Mosquée is situated in the middle of a square courtyard (cca 75x75m) with couple trees and it is separated from the village with earthen wall of 3m high with a degraded minaret of 17m in the western corner. There is a decorated gate with two towers of height of 10m. It is opened all day long for regular praying and individual meditation.

Because of the weather conditions (heavy rainy seasons, strong harmattan wind), imperfect structural system (vault) and unstable material the tower, roof and six pillars were seriously degraded (let’s say into ruins) and the acoustics, the ambience, the privacy and comfort are fundamentally affected. However in 2013 the Bani community restored it. The degradation percentage is only about 15% (especially the external minaret is damaged).

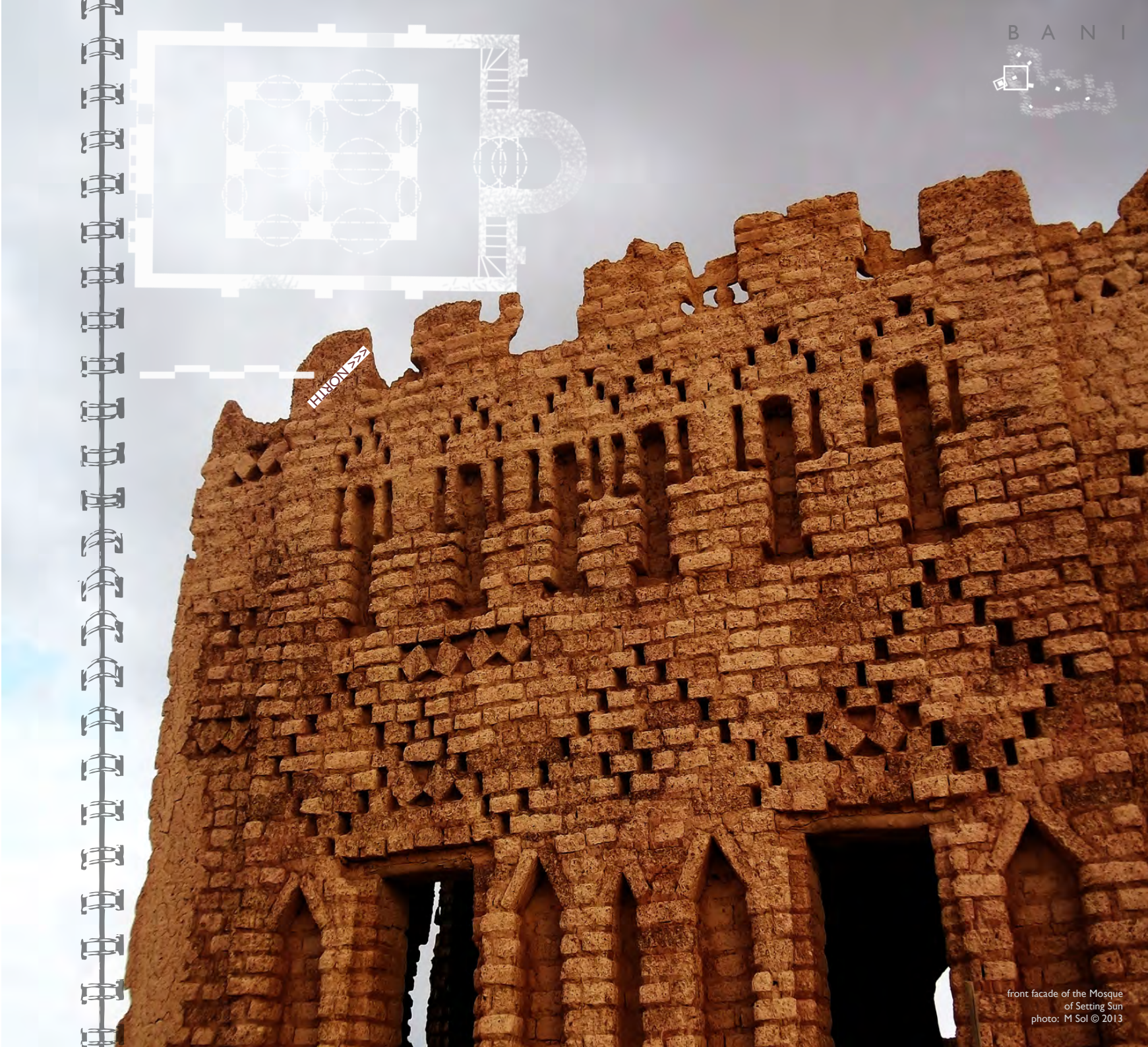




THE MOSQUE OF THE SETTING SUN ::: THE HEAD

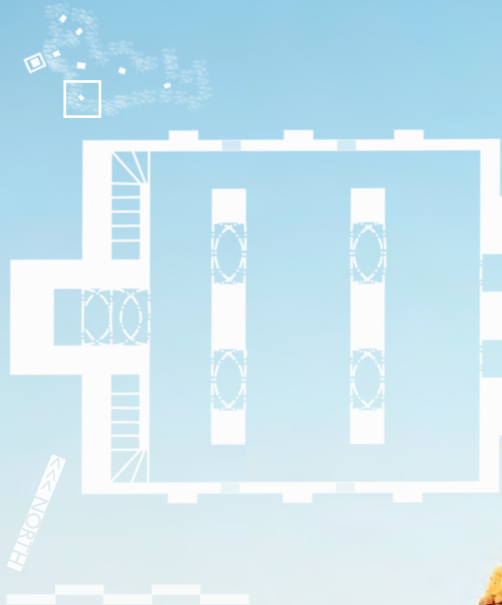
The Mosque of The Setting Sun represents the head of a praying man. The dimensions of the mosque are: length 11 meters, width 7,5 meters and height 6 meters. The minaret had a height of 17 meters, but collapsed in 2010. The degradation description: the mosque's minaret is completely ruined down, the roof is seriously damaged and that is why the interior is degraded as well – one row of columns and vaults is torn down. The rear wall doesn't exist anymore, the dimension has been taken by the foundation traces. Exterior facades can show original form, openings and even decorations. The degradation percentage is 50%.

the Mosque of Setting Sun  
viewed from Bari village  
photo: PV Cel © 2013

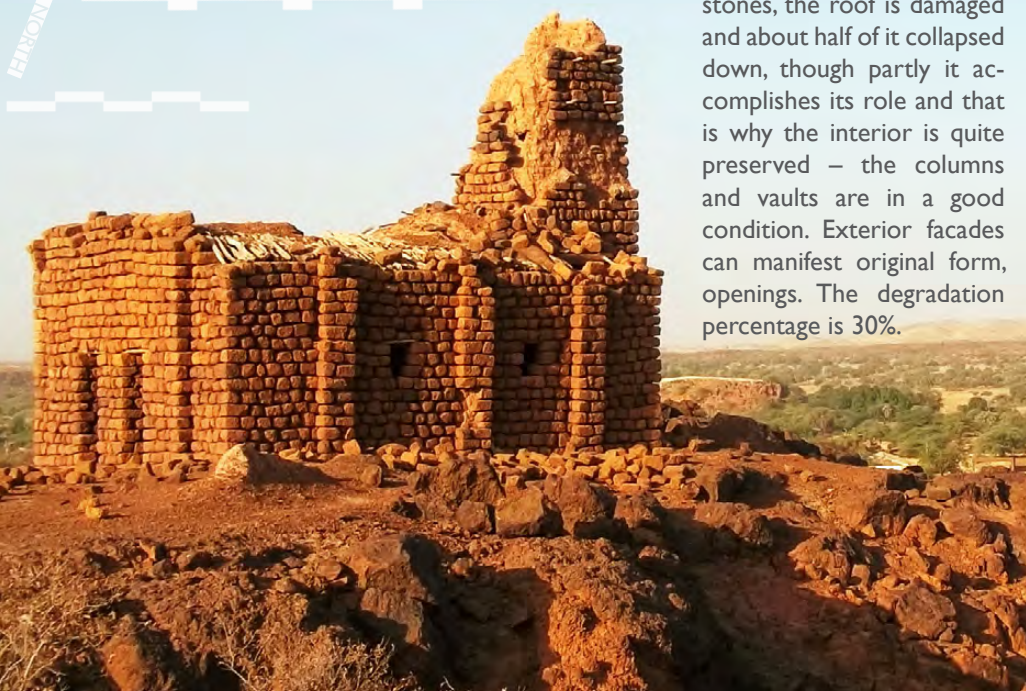


front facade of the Mosque  
of Setting Sun  
photo: M Sol © 2013

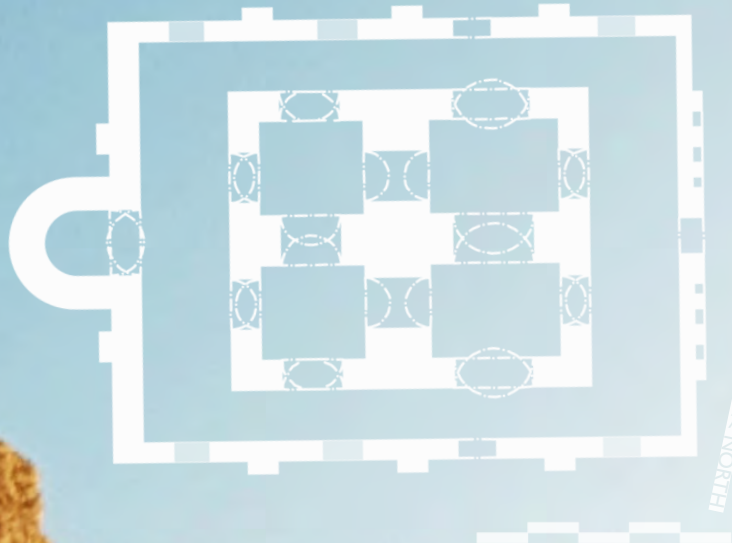




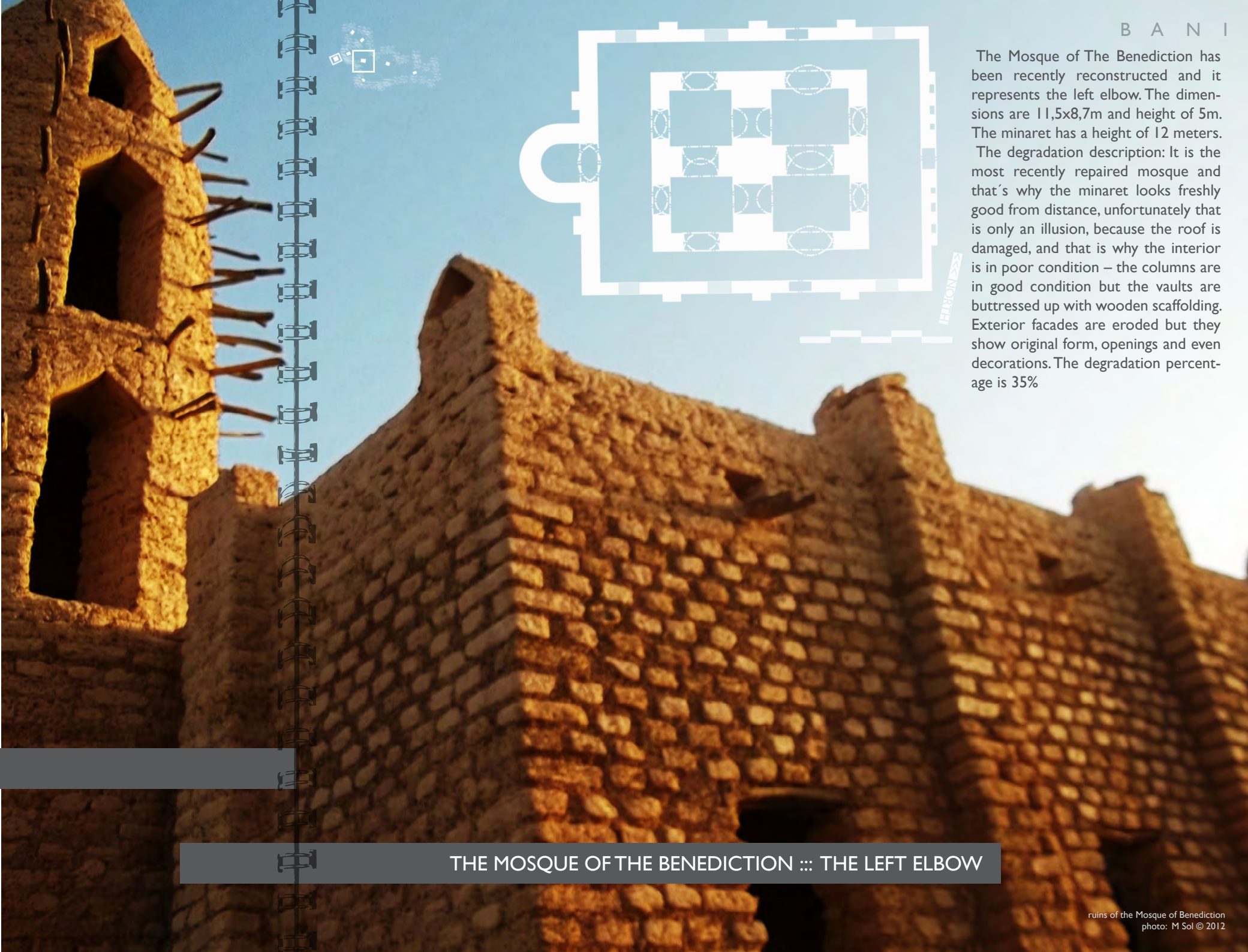
The Mosque of The Sacrifice represents the left hand of a praying man. Dimensions are 7,5x9,5m and 5m in height. The minaret comes up to 10m. It stands at the highest point of the cliff and during the rainseason there is a water reservoir in Bani on which surface the mosque is reflected. The degradation description: there are relicts of mosque's minaret – some wooden poles are still stucked in the joints of stones, the roof is damaged and about half of it collapsed down, though partly it accomplishes its role and that is why the interior is quite preserved – the columns and vaults are in a good condition. Exterior facades can manifest original form, openings. The degradation percentage is 30%.



THE MOSQUE OF THE SACRIFICE ::: THE LEFT HAND



The Mosque of The Benediction has been recently reconstructed and it represents the left elbow. The dimensions are 11,5x8,7m and height of 5m. The minaret has a height of 12 meters. The degradation description: It is the most recently repaired mosque and that's why the minaret looks freshly good from distance, unfortunately that is only an illusion, because the roof is damaged, and that is why the interior is in poor condition – the columns are in good condition but the vaults are buttressed up with wooden scaffolding. Exterior facades are eroded but they show original form, openings and even decorations. The degradation percentage is 35%



THE MOSQUE OF THE BENEDICTION ::: THE LEFT ELBOW



The Mosque of the Good Idea represents the right hand. It is the most ruined one with dimensions 11x8m, height 6m, with 6 pillars and the collapsed minaret of 11m.

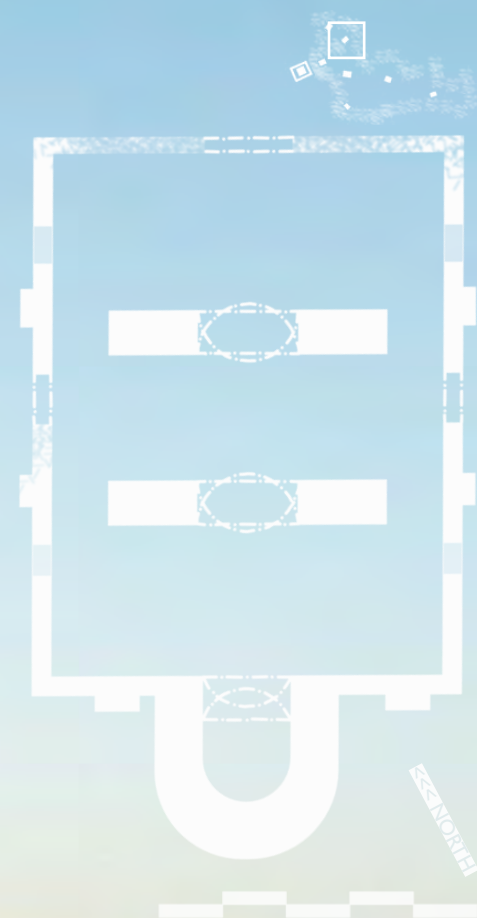
The degradation description: The most degraded mosque with almost all walls torn down. There are relicts of mosque's minaret – some wooden poles are still stuck in the joints of bricks, but a man can understand it only if he can read the Muslim earthen architecture. The roof has already fallen down except the one part from which one can guess the structure composition. In the interior, there is only one row of columns and vaults remaining. Exterior facades can manifest original form, but the openings and even decorations are documented only by photos. The degradation percentage is 90%.



THE MOSQUE OF THE GOOD IDEA ::: THE RIGHT HAND

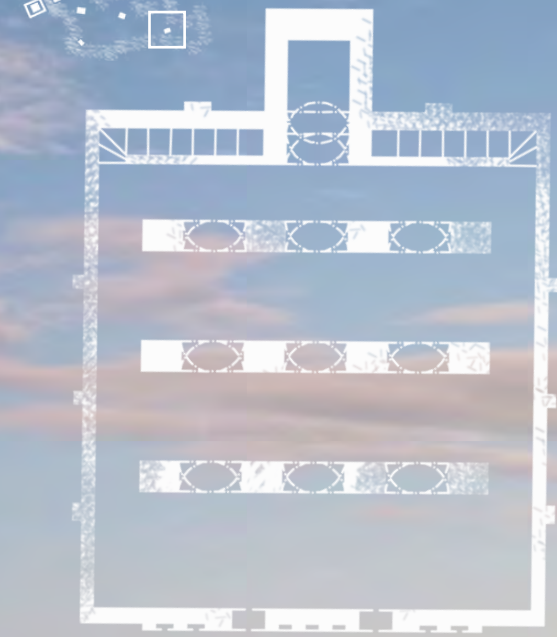
The Mosque of The Joy represents the right elbow. The dimensions are 8,8x6,8m, 4m high. It contains 4 pillars and 11m minaret.

The degradation description: The minaret is missing completely; its position can be estimated only from the interior composition. The walls look good from distance, unfortunately that is only an illusion, because they are eroded and the roof leaks a bit. We can see relicts of draining system of the roof, but unfortunately the roof slope doesn't lead the rainwater into the gutters. Interior consists of all columns still, but there is water all over the floor and bat nets under the ceiling. Exterior facades are weathered, but they show original form, openings and even decorations. The façade tells the experiment of different materials used for vertical structures. The degradation percentage is 35%.



THE MOSQUE OF THE JOY ::: THE RIGHT ELBOW



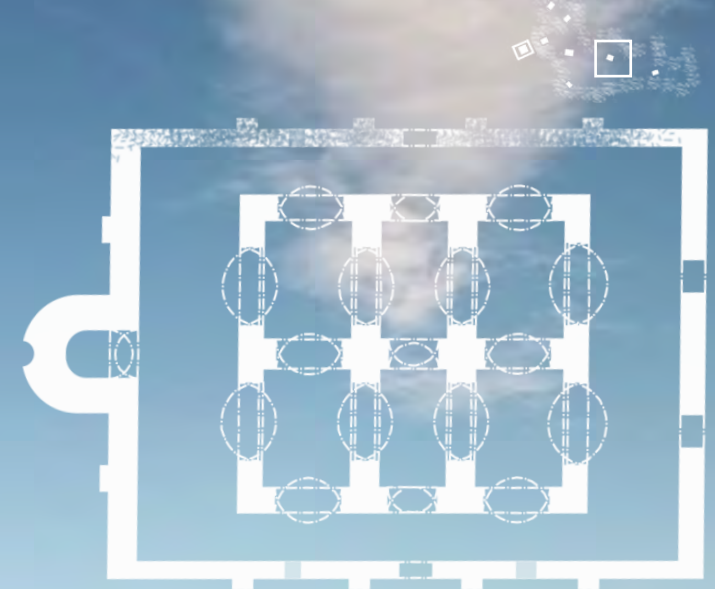


THE MOSQUE OF THE RISING SUN :: THE LEFT FOOT

The Mosque of The Rising Sun represents the left foot. The dimensions of the mosque are: length 11,5m, width 10,5m and height 5m. The mosque consists of 12 pillars and a minaret with a height of 11 meters. It is rather distant from the others, behind a low undulation of the eastern platform hidden in the dense bush during the rain season.

The degradation description: The minaret is missing completely; its position can be estimated only from the exterior composition. The walls are ruined as well. The roof is missing completely except 3 beams remaining on the only vault. Interior consists of only 3 columns and several relicts – we can read their disposition. The plan is still readable, but the façade unfortunately not. The decoration is recognizable only on western façade. The degradation percentage is 80%

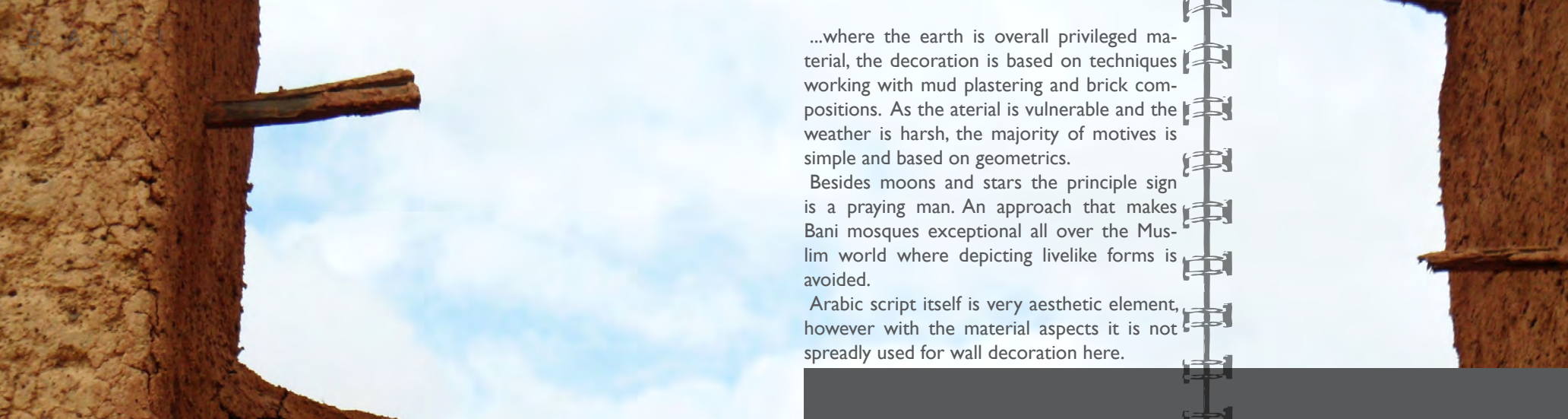
THE MOSQUE OF THE PLEASURE :: THE RIGHT FOOT



The Mosque of The Pleasure represents the right foot. The dimensions are 14,5m long, 10,5m wide and 5 high. The mosque consists of 12 pillars and a minaret 11m high.

The degradation description: The minaret is missing completely; its position can be estimated only from the interior composition, not even from exterior. The walls look good from distance from the South, unfortunately that is only an illusion of durable stone, because they are eroded and the roof is missing on the northern side. Interior consists of almost all columns except 3 pieces, but there is water all over the floor and bat nets under the ceiling. Exterior façades are weathered, but they show original form, openings on southern side. There is no decoration, because this mosque is made of stone pieces that are bigger and worse processable. The degradation percentage is 45%





...where the earth is overall privileged material, the decoration is based on techniques working with mud plastering and brick compositions. As the material is vulnerable and the weather is harsh, the majority of motives is simple and based on geometrics.

Besides moons and stars the principle sign is a praying man. An approach that makes Bani mosques exceptional all over the Muslim world where depicting livelike forms is avoided.

Arabic script itself is very aesthetic element, however with the material aspects it is not spreadly used for wall decoration here.

## DECORATION



prayer depicting decoration on the front facade of the Great Mosque  
photo: PV Cel © 2013



## THE SITE POTENTIAL

### SITE POTENTIALS, URGENT ACTIONS, SUGGESTIONS AND DECISIONS

Issued like the observation of the General Direction of Cultural Patrimony. On 17/08/2011 the team of Guigma Léandre (architect/Agence Perspective), Kaboré Barthélemy (director of the Documentation and Research at DGPC/MCT = General Directory of the Cultural Patrimony / the Ministry of Culture and Tourisme) and Dao Makiza (service de l'inventaire/DGPC/MCT) wrote:

*“Un site très impressionnant du point de vue architectural, ce qui fait de lui un lieu d'attraction touristique. Cependant, les techniques de construction mises en œuvre ne résistant pas longtemps aux intempéries, la tour et le minaret de la Grande Mosquée sont en ruine. Il faut souligner que l'ensemble des mosquées est en dégradation mais à des degrés divers. Il convient donc d'envisager de toute urgence une restauration de ce site afin de lui donner son lustre d'antan. A cet effet, nous suggérons que la restauration soit faite avec de matériaux locaux adaptés à ce type de bâtiment et qui puissent tenir longtemps. A Bani, on constate que même les mosquées construites il ya à peine une année sont déjà dégradées ou en voie de dégradation.*

*Une des principales difficultés est l'approvisionnement en eau. La digue du bar-*

*rage, construit pour retenir de l'eau a cédé. Ce qui handicape sérieusement les diverses activités notamment celles liées à la conservation du site et l'entretien des mosquées. L'autre difficulté est que ces mosquées ont été construites sans plan, mais suivant l'inspiration du fondateur ! Le but recherché dans la construction des mosquées est entre autre la formation des jeunes, l'abnégation au travail, la solidarité et le sacrifice. En somme, la durabilité ne semble pas être le premier objectif du maître d'ouvrage. Dans ces conditions, il convient que toute initiative de réhabilitation soit entreprise sans l'accord du géniteur des mosquées..”*

Translated: “The site is impressive in its architecture which makes it attractive for tourists. However, the construction technologies don't resist to the weather condition for a long time. The tower and minaret of the Great Mosques are in ruins. It is necessary to mention that the complex of mosques is in different phases of degradation. We have to act urgently and restore the former glory of the site. In this case we suggest that the restoration is carried on with the local materials with an adaptation for the building type that can last for a long time. We can

say that in Bani, however the mosque is built up for less then one year, the degradation is already noticeable.

One of the essential difficulties is water supplying. The dam structure constructed to store the water was burst. And this seriously disables various activities, especially those related to the site conservation and the mosques maintainance. Other problem is that the mosques were constructed without any plan, but according to the founder's inspiration.

The aim in the construction of the mosques is among others youth training, selflessness at work, solidarity and sacrifice. In short, sustainability does not seem to be the primary objective of the Founder. In these circumstances it is appropriate that any rehabilitation initiative is made without the consent of the Founder of the mosques. »

The Great Mosque benefits from customary protection through the establishment of a management committee for the Mosque, the association for Koranic school and supervision by the village chief, its Council and village chief.



WHY IT IS IMPORTANT TO DO THIS PROJECT?

The role of heritage can contribute as a driver of development and this was explored and confirmed by Paris Declaration by ICOMOS during Scientific Symposium of 17th General Assembly.

CULTURAL PRESERVATION

The mosques of Bani are one of the rare cultural sites Burkina Faso has and therefore should be protected and maintained. Tourism and research is one reason, but also for future generations which are curious about their origins. The history indicates the uniqueness of the buildings. All mosques are built by villagers based on the visions of Cissé Ahmed Ama. Traditional knowledge and visions from God have made the design. None of contemporary architects was involved. This has created a series of mosques with a unique appearance which is admired by people from all over the world. Inside there are 100 pillars holding the construction while representing all names of God. The images of men praying to God are singu-

lar as, in general, mosques do not contain any images of human beings. The mosques of Bani are not only unique buildings in appearance; they also make sure that the story behind Bani will be kept forever.

UNIVERSAL OUTSTANDING VALUE

The New UNESCO declaration from 2002 is based on 5Cs and it means Credibility, Conservation, Capacity Buiding, Communication and Community. It is necessary to link world heritage, sustainable development and local communities. More the people are involved, more they feel the ownership of progress and the development.

The Bani mosques evidently meet at least three of the Criteria for selection to be inscripted on the List of World Cultural Heritage

*nr. 3 to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

*nr. 4 to be an outstanding example of a type*

*of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

*nr. 6 to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.*

At the time of increasing globalisation, the protection of the cultural heritage and diversity of any particular place or region is an important challenge for people everywhere.

RELIGION AND TRADITION

As mentioned, la grande mosquée is used for day to day prayers. The other seven mosques play an important role in the prayers during Islamic celebrations. In the north of Burkina Faso, especially in the Sahel region, the Islam is the major religion. For the villagers it is important to maintain the buildings in which they communicate with God and where they come together to discuss about religion and day to day matters.

The Islam in Bani is a little different from the traditional Islam. In some ways it is even advanced compared to other opinions of the Islam. For example people from all religious backgrounds are welcome to pray and men and women pray together in the same space. God doesn't make any exceptions. The opened mind is very important for development of futur generations. Bani can be proud of quite high ratio of educated children in the region.

TOURISM

The mosques of Bani are one of the most important touristic sites in the Sahel region and even of Burkina Faso. Tourism has been developed in Bani when local and foreign tourists started to be curious and interested in the history of Bani and its mosques. Each year about 400 tourists visit the mosques which generates income to villagers. Visiting the mosques is for free, as people from all cultural and religious backgrounds are

welcome for prayings. The tourists are welcome to give a free donation for the restoration and maintenance of the mosques. As the tourists often feel grateful, they give a small donation and became an important partner. Without the tourists it would not be possible to reconstruct and maintain the mosques. Unfortunately tourism isn't a constant factor. Political and economical conditions have a huge impact. In 2010 a negative travel advice, as a result of unrest in Niger and Mali, has caused a period without tourism in Bani.

ECONOMY

Before the construction of the mosques, Bani had about 500 villagers. Over 30 years the village has grown to 4.000 inhabitants. This is an enormous growth which is exceptional for the rural areas in Burkina Faso. The enormous growth over the years coming out of the visions of Cissé Ahmed Ama and the mosques he build has attracted economical activities. Next to the benefits coming out of tourism,

as mentioned above, Bani has potential for local entrepreneurs. Across the major road of Bani, entrepreneurs seek their chances in small shops and coffee bars. At least three days a week stallholders, mostly woman from the neighbor villages, come to Bani to sell their merchandise on the local market. Today the village counts two primary schools, a secondary school and a local hospital where civil servants work. The civil servants, in general, have more money to spend than others and thus invest more in the local economy. However there is no direct relation between the mosque and the local economy it should be clear that without the mosques the economical growth has never happened. The financial support for the restoration of the mosques is invested in local entrepreneurs by buying materials and equipments in local shops and the use of local craftsmen and construction workers.

THE STATEMENT OF IMPORTANCE



The mosques are victims of natural and manmade threats. The tense political situation and harsh weather has been destroying the heritage faster than people might maintain it.

THE STATEMENT OF URGENCY

WHY IT IS URGENT TO DO THIS PROJECT

Sociologically, it is exceptional „project“ that has shown its potential already. The population of Bani has increased from five hundred up to four thousand. The craft and local fair trade has well developed. During holidays many people come for the unique festives.

La grande mosquée is in good condition at the moment. Making its state sustainable will be a relatively small investment which has huge benefits for the maintenance in the future. In contrast to the grande mosquée, the seven small mosques are in a relatively poor condition. If there will not be a sustainable solution for the Grande Mosquée there will be no capacity to reconstruct and maintain the other seven mosques. Result; the other seven mosques will fall down as they are already neglected.

SUSTAINABILITY AND LOCAL IDENTIFICATION

All mosques together tell the story of Bani and show the originality of the buildings. The local people are proud about it and they have very strong attachement to identify with.

SUSTAINABLE DEVELOPMENT OF COMMUNITY

However, good restoration is not only to conserve the historical site. It would even be naïve to reconstruct the buildings without learning from the experiences in the past. It is important to find a sustainable solution for the restoration of the sites, without losing its unique appearance and attractiveness.

At this moment Cissé Ahmed Ama is still alive. It is important to preserve the seven mosques

in a way as he has mentioned and seen in his visions from God. If restoration is done later, the important information could be lost and only an estiamtion of the visions of Cissé Ahmed Ama could be made.

In addition Cissé Ahmes Ama is an important and respected man in the village and he can accelerate, organize and underline the importance of the restoration.

The financing of the past restoration was always on behalf of local people who raised the means either amongst themselves or they earned it in tourism.

The last seasons were very poor because of the security problems in neighbour countries and international warnings.

The income from tourism had become the major financial source for everybody and Bani had been flourishing. Unfortunately there have been several political crises in the region (unstable Niger, civil war in the Ivory Coast in 2010, Mali 2012). The tourism got in troubles, so did people who have problems with their basic needs as well as with the maintenance of cultural heritage that is degraded with the hard climate.

By making the mosques less sensitive for weather conditions, less budget is needed each year and money can be saved for large maintenance projects even when tourism stayed out during some seasons. It is needed to preserve the mosques properly.





brick fabrication with the background of the Mosque of Sacrifice  
photo: M Sol © 2012

THE CHRONOGRAM AND EXECUTION PLANNING

The project counts on being carried on in 3 years, from 2014 to 2016. In general, the time planning respects the specific climate conditions which means that from July to September it is the season called “hibernage” with very heavy rains and wind. The wind gets harsh and sandy in a period from Octobre to February when the Sun rises powerful and the weather is very hot and dry.

The project will start in September 2014 and will be finished in February 2016. The total project will take about 2.5 years. Each year, between March-July, there will be no construction work. Those months are very warm and dry as there is no raining. Water is one of the most important ingredients for construction, without raining water it is impossible to continue. The preservation and restauration activities will be about 2 days per week (because traditionally only workers from Bani and surroundings can be involved and they have to run their fields as well). In total there are 14 months (144days) of construction work. About 5 months (48 days) will be spent on the plasterwork of the Grande Mosquée and 9 months (96 days) will be spent on the restoration and plasterwork of the seven mosques.

PROJECT OF STABILISATION AND RESTORATION IN TIME

YEAR	MONTH	ACTIVITY
2014	JANUARY - FEBRUARY	Recruitment of villagers and construction workers Buying (transport) materials
	MARCH - JULY	Too dry and hot to work Exhibition and awareness activities
	AUGUST - DECEMBER	Plasterwork of the Grande Mosquée Finishing the Grande Mosquée Reporting and documenting
2015	JANUARY - FEBRUARY	Restoration of 7 mosques Preparation and material supply
	MARCH - JULY	Too dry and hot to work Report + Document processing exhibition
	AUGUST - DECEMBER	Restoration of seven mosques
2016	JANUARY - FEBRUARY	Restoration of seven mosques
	MARCH - JULY	Too dry and hot to work Reporting Exhibition and awareness activities
	AUGUST - DECEMBER	Restoration seven mosques Finishing plasterwork seven mosques Final report

fresh mud bricks  
photo: M Sol © 2012



THE PROJECT ACTIVITIES

PROJECT MANAGEMENT

- a field survey to exactly quantify current pathologies
- documentation of the materials
- documentation of decoration and construction
- coordination of preparation and construction
- recruitment of villagers and construction workers
- planning
- budgeting including collection of factures
- monitoring activities
- regular reporting to external stakeholders

AWARENESS RAISING AND DOCUMENTATION

- a field survey to monitor the current situation
- documentation of the materials
- documentation of decoration and construction
- presentations and conference
- exhibition

During all the process of preservation there will be ongoing documentary activities run by CiglerMaraniUn-  
limited (CiglerMaraniArchitects) with result of printed publication focused on the architectural forms and val-  
ues, the traditional techniques and materials, and the sto-  
ries of the burkinabe people linked with the mosques  
and their preservation.

The better understanding of the problems facing earth-  
en architecture, the development of polulation minds  
might be strengthen by awareness activities, particularly  
in local communities through exhibitions (comparisition  
before and after), conferences and technical publications  
to raise the recognition of earthen architecture.



ruins of the Mosque of Rising Sun  
photo: M Sol © 2013

PREPARATION

- buying materials
- making bricks
- buying transport materials
- transport of materials

The construction materials will be bought, as much as possible, on the local markets. This will stimulate local economy and avoid expensive transportation costs. In addition, it is important to use local materials to ensure that the future maintenance = the construction materials are available in the neighborhood.

As motor vehicles are expensive and unavailable, a tra-  
ditional way of transport should be found to transport  
the construction materials to their destination. Donkey  
carts can be the solution. As the rent of donkeys will  
lead to high costs and inflexibility it will be better to  
buy some. Four wheel carts will be bought to lighten the  
working conditions of the donkeys. Traditional carts have  
two wheels which oblige the donkey to carry and pull  
together instead of pulling only.

PRESERVATION AND RESTAURATION

- rehabilitation of mosques,
- improving of the drainage system and sewage
- plasterwork

Traditionally, at the beginning of the construction of the  
mosques local workers were involved. A father taught  
the traditional skills his sons. Today the son is respon-  
sible for the construction of the mosques. He will be  
approached to lead the construction work and to guide  
the other construction workers (villagers). In return he  
will get a small reward to eat.

The villagers are familiar with restauration and main-  
tenance activities concerned the mosques. Villagers feel  
involved in the construction activities. It is a tradition to  
gather and maintain the mosque in Bani for free. To mo-  
tivate villagers to participate and to speed up the con-  
struction, villagers will get a meal and a small compensa-  
tion as they are not able to gain money that day.

As mentioned before, the seven mosques on the hill  
are neglected and should be reconstructed. Bricks made  
of local clay will be made in the village, transported to  
the mosques and piled up. This is not different from the  
method they used before. However once the mosques  
are reconstructed, a raw plaster will be applied to cov-  
er the mosque with a protective layer (crépissage). This  
protective layer includes tar, petroleum and sand. Wood  
is used to heathen the tar. It will protect the mosques  
against weather influence without losing its appearance  
and it cultivates the traditional building methods.

By using local clay for the construction of bricks, the ap-  
pearance of the mosques is integrated in the landscape.



INTEREST

Conservation should be interpreted more broadly than the physical continuity of historic structures; it should also enable the continuity of non-material aspects of culture. We don't want to interrupt the living traditions in Bani, and that's why the project follows common principles such as no intensifying of works on the mosques (people have to do it voluntarily, no to be considered like a permanent job (except the architect master), involving workers of different ages – generations, to facilitate the transmittal of the know-how.

PATHOLOGIES AND RISQUES

Because of the serious degree of degradation the pathologies are overpresent and very easily identifiable. The majority of them were caused by the stagnation of water and resulting erosion of the roofs and wall tops and foundation. This risque has to be eliminated by well implemented drainage system – wooden guthers. The metal sheets in form of small canals are quite spread in the area, but they don't go along well with the earth that is over all privileged material.

To restore all the roofs it is necessary to dismantle all of them excepting the one of the Great Mosque. Then, the wood has to be sorted in accordance with their quality and usability.

As well, certain walls will have to be dismantled first to check the quality of damaged bricks. Some of them might be reused, the rest of them “recycled” for the brick production.

MATERIAL

As it was already mentioned the earth is over all privileged material. In Burkina, there were some experiments at the sites of cultural patrimony. Exactly it was the use asphalt-bitumen to strengthen the earth resistance to the climate. This experiment has shown that the bitumen contributes to the temperature augmentation during the hot season (proved in Tiébélé). In addition, it decreases the quality of the clay. The reutilization of the clay that has been already mixed with the bitumen influences its leak tightness, permeability and environmental pollution... It was true that in short terme the use of bitumen helped people not to restore their sites every single year, but only by three years (p. ex Kokologho). On the other hand, the traditional maintenance reinforces the capacities for traditional practices That's why we would like to keep the traditional mixture in Bani – clay, earth, gravels, straw, water and donkey/zebu dung. In the case of the plaster, it will be the mixture of the clay, earth, water and sheabutter. It is calculated that 100 earthen bricks are needed for the simple wall of any small mosque of 1m of length and 1m of height. The case of pilaster is different (pilaster on the plan 500x500mm), 180 bricks for 1m of height of pilaster is needed.

There is a will to strength the top of external vertical structures (heads of columns and pilasters, atticas, and minaret peaks) with an addition of ciment to eliminate the water soaking and fast erosion.

To sum it up, the majority of the great historic mosques have experienced change, enlargement, and restoration over the centuries. Restoration entails bringing the structure back to the state of some period of existence or origin: but to what period and state remains a point of debate. The situation in Bani is different because of the short history, because of the absence of any plan or documentation and because of the Founder who is still alive. The restoration of Bani concerns the construction works according to the recent memories of local people and the instructions of the Founder.

*“If mosques remain in present use they are often well maintained, as is the case with the earthen mosque of Djenné in Mali, Al Aqsa in Jerusalem, or the Imam Ali Mosque in Najaf (important to Shi'ite Muslims)”* says Hasan-Uddin Khan from Roger Williams University, USA.

THE PRESERVATION TECHNIQUES



Table 3 Quantity of materials and total costs per mosque

	Great M	Setting Sun Head	Sacrifice Left Hand	Benediction Left Elbow	Good Idea Right Hand	Joy Right Elbow	Rising Sun Left Foot	Pleasure - Right Foot	Total CFA	Total \$
Degradation	15%	50%	30%	35%	90%	35%	80%	45%		
Brick (walls) / pcs	0,0	4 600,0	1 000,0	1 000,0	25 000,0	1 000,0	18 000,0	1 000,0	5 160 000,0	10 418,0
Brick (pilasters) / pcs	0,0	1 080,0	0,0	500,0	5 000,0	500,0	5 000,0	2 000,0	1 408 000,0	2 842,8
Brick (minaret) / pcs	35 000,0	8 100,0	2 500,0	0,0	7 000,0	4 000,0	7 500,0	5 000,0	6 910 000,0	13 951,3
Wood (roof) / pcs	0,0	60,0	30,0	50,0	250,0	50,0	250,0	30,0	1 800 000,0	3 634,2
Water	500,0	200,0	200,0	150,0	200,0	150,0	200,0	200,0	900 000,0	1 817,1
Clay (plaster)	150,0	60,0	60,0	45,0	60,0	50,0	60,0	60,0	272 500,0	550,2
Cement / bag	6,0	2,0	2,0	2,0	2,0	1,5	2,0	2,5	130 000,0	262,5
Gravel / Sand (plaster)	150,0	60,0	60,0	45,0	60,0	50,0	60,0	60,0	545 000,0	1 100,4
Straw (plaster)	12,0	4,0	4,0	3,0	4,0	4,0	4,0	4,0	39 000,0	78,7
Shea butter	100,0	40,0	40,0	30,0	40,0	35,0	40,0	40,0	365 000,0	736,9
Total CFA	4 126 000,0	1 775 000,0	672 000,0	463 500,0	4 572 000,0	873 750,0	3 922 000,0	1 125 250,0	17 529 500,0	35 392,1
Total \$	8 330,4	3 583,7	1 356,8	935,8	9 230,9	1 764,1	7 918,5	2 271,9	35 392,1	

Table 4 Summary

	CFA	\$
Overall costs	11 489 500,0	23 197,3
Great Mosque material	4 126 000,0	8 330,4
Seven mosques material	13 403 500,0	27 061,7
Reserve for material (5%)	1 481 000,0	2 990,1
Total costs	30 500 000,0	61 579,5

Association Pamtiral m’jamu, the villagers and other benefactors donate a sum of money each year for the maintenance of the mosques. Unfortunately this amount is not enough to cover the total costs of the project. Nevertheless, each party feels engaged and responsible for the maintenance and existence of the mosques. On the other hand the donations should be regulated to ensure income for maintenance after the restoration and finance of external stakeholders. Therefore budget sharing will be proposed.

Association Pamtiral m’jamu is able to collect about 400.000 CFA out of tourist visits each year (400 visits, expecting tourists to pay about 1.000 CFA each). Association Pamtiral m’jamu will also donate about 250.000 CFA of their earnings each year. Donations coming from celebrations and collections of money could bring in approximately 300.000 CFA each year. Unfortunately it is not possible to guarantee the exact donations as they are dependent

on the free gifts and tourist visits. Tourist visits are dependent on external circumstances. Table 1 gives an overview of the building materials and construction workers needed for the restoration of all mosques. Those materials and workers can be paid once. Table 2 gives an overview of the needed building materials, their quantity and single price. Table 3 gives an overview of the total costs per mosque.

DETAILED BUDGET

There are no salaries included except the small rewards for construction volunteers. Mr. Hama Amadou is the mayor of Bani, and he accepts the project management role as the part of his duties of mayor. He is paid by the town hall. Mr. Hama Hamadou Cissé is the chairman of the musulman commity and his role will be covered by this institution.

Mr. Nouhoum Cissé will get the daily reward as other construction volunteers. The rest of his activities will be covered by the association Pamtiral m’jamu. Mme. Michaela Solnická will be paid by Cigler Marani Architects, a. s., our international partner. But the expenses on exhibitions and publishing (printing of exhibition panels, printing of the work about Bani and its transportation) are included in the project budget.

Table 1 Overall costs

Description	Quantity	Single price CFA	Total CFA	Total \$
Donkey cart	10	125000	1 250 000,0	2 523,8
Shovel	30	2500	75 000,0	151,4
Pickaxe	20	3000	60 000,0	121,1
Donkey	10	50000	500 000,0	1 009,5
Barrel	20	8000	160 000,0	323,0
Bucket	40	2500	100 000,0	201,9
Plank	15	7500	112 500,0	227,1
Rafter	15	7000	105 000,0	212,0
Construction Volun- teers (for 144 days)	40	1000	5 760 000,0	11 629,4
Construction worker (for 144 days)	1	13000	1 872 000,0	3 779,6
Exhibition panels	15	13000	195 000,0	393,7
Printing (aprox. 50 pages in colour)	100	13000	1 300 000,0	2 624,7
Total			11 489 500,0	23 197,301

Table 2 Quantity and single price for quantity

needed	Quantity	Single price CFA	Single price \$
Brick	Brick	100	0,202
Wood (roof)	Beam	2500	5,048
Water	Bucket	500	1,010
Clay (plaster)	Per donkey cart	500	1,010
Cement	Bag	6500	13,124
Gravel / Sand (plaster)	Per donkey cart	1000	2,019
Straw	Bunch	1000	2,019
Shea butter	kg	1000	2,019





The project management team consists of the members of the Bani cityhall (Mayor HAMA Amadou) with the Commity for the Mosques preservation, of members from the associa-tion Pamtiral m'jamu (CISSÉ Nouhoum) and the chairman of the bureau du comité musul-man CISSÉ Hama Hamadou.

PROJECT MANAGEMENT TEAM

**MR. AMADOU HAMA** is very respected man in Bani. He became mayor in 2012 and he leads all the activities very proactively. He was a member of the Chamber of Representatives (“depute” in French), so he is experienced in negotiations, project management, decision making and in contact with authorities.

**CISSÉ HAMA HAMADOU** was asked to participate in the project because he is the chairman of bureau du comité musulman. It is impossible to reconstruct the mosques without the approval of the bureau du comité musulman. They are one of the most impor-tant stakeholders in the project and influential stakeholders in Bani. By including the chair-man to the project, decision making and the implementation of decisions would be much more efficient and effective. The CV of Cissé Hama Hamadou is attached. The project man-agement team is responsible for the realiza-tion of the project. The activities are divided over the members of the project management team.

Association **PAMTIRAL M'JAMU** was founded in 2005 under the law of Burkina Faso, 10/91 ADP date 15th December 1992. 8th of June 2007, the association was officially confirmed with the certificate number 20077-003/MATD/RSHL/PSNO/HC/DR. Associa-tion Pamtiral m'jamu does not discriminate on ethnic or religious background, gender or political opinion. Association's objectives are: social mobilization of Saheliens, child support in the Sahel (homeless children or orphans of aids), education for all children, (special at-tention to girls), fight against forced marriage, fight against circumcision, fight against predestinate marriage, and fight against child labor in the Sahel.

The association is related to one of the two hostels in the village, aubergement Le No-made. The members of the association guide tourists around the village and thereby col-lect the free donation for the maintenance of the mosques. Some tourists also make a direct donation to the association who distributes the money to community.

Next to their own activities, the association also participates in international activities in cooperation with international NGO's. In 2009 the association cooperated in a program with Reach Italia and since 2008 they coop-erate together with association Cerdagne tiers monde. Association Pamtiral m'jamu has gained experiences in the cooperation with international NGO's, communication with foreign stakeholders, project management and recruitment activities in Bani.

As the members are familiar to Western meth-ods and grew up in a traditional background, they are the link between both worlds. More information about the projects of association Pamtiral m'jamu can be found in the CV of Nouhoum Cissé, who is the chairman of as-sociation Pamtiral m'jamu.





Located:	region Sahel, province Séno, rural community of Bani
GPS coordinates:	13°43'17" N 0°10'20" E, 287m asl
Project manager:	HAMA, Amadou ::: commune.bani@yahoo.fr
Ownership status:	private property of the community of Bani
Managed:	family of El Adjì Amadou HAMA ::: tel: 0022676446384, Adr: BP 88 Bani / Dori
Legal protection:	Common Low: Family Law El Hadj Amadou Hama
National patrimony:	inscription on the List of National Cultural Patrimony, N°2004-651/MCAT/SG/DPC, since du 09 août 2004
Project initiator:	CISSÉ, Nouhoum ::: noumcisse@yahoo.fr in 2010 with van DIJKEN, E. Eva ::: eefjevandijken@hotmail.com
Project written by:	SOLNICKÁ, Michaela, Ing.arch. ::: solnicka@ciglermarani.com Cigler Marani Unlimited / Cigler Marani Architects, a. s. External partners are asked to be involved in the project by translating and editing reports and documentation. The partners are familiar to the situation and customs of Bani and have regular contact with the main stakeholders of the project.
Plans and maps by:	SOLNICKÁ, Michaela, Ing.arch.
Photo courtesy:	SOLNICKÁ, Michaela, Ing.arch. ČELIGOJ, Polona Vida (6 photos) ONDICOVÁ, Monika (1 photo) DIJKEN, E. Eva (1 photo) CISSÉ, Nouhoum (1 photo)

THE FACTS



in December 2013  
in Burkina Faso and the Czech Republic

south-eastern part of Bani village  
viewed from the Mosque of Rising Sun  
photo: M Sol © 2012



