

Title Of The Presentation

**« The Preservation Of the Traditionnal Building System In the Saharan
Environnement as Factor of Sustainability »
Case of Study ; Timimoun the Red Oasis.**

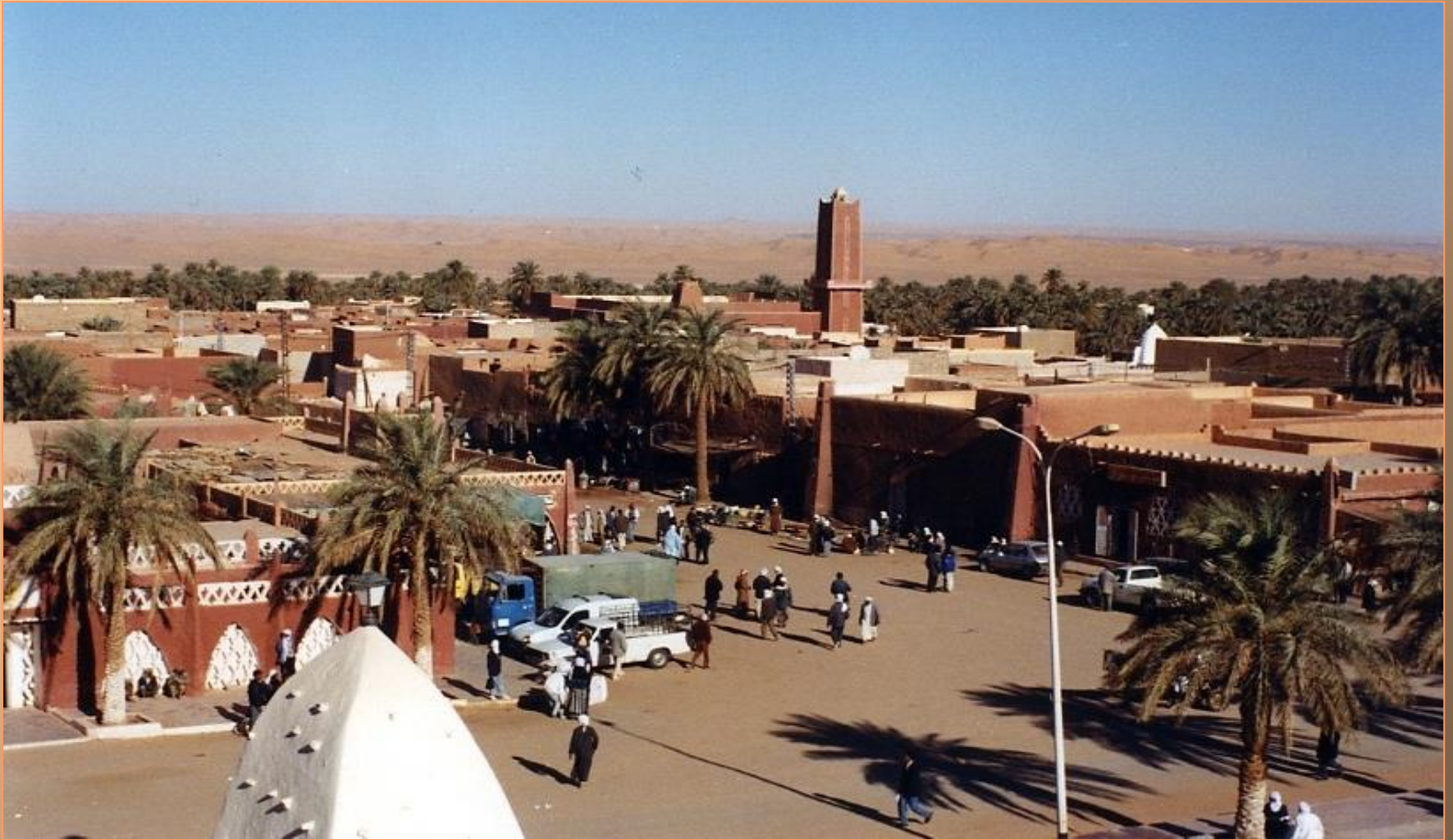


Dr / Arch. MOURAD MAROC

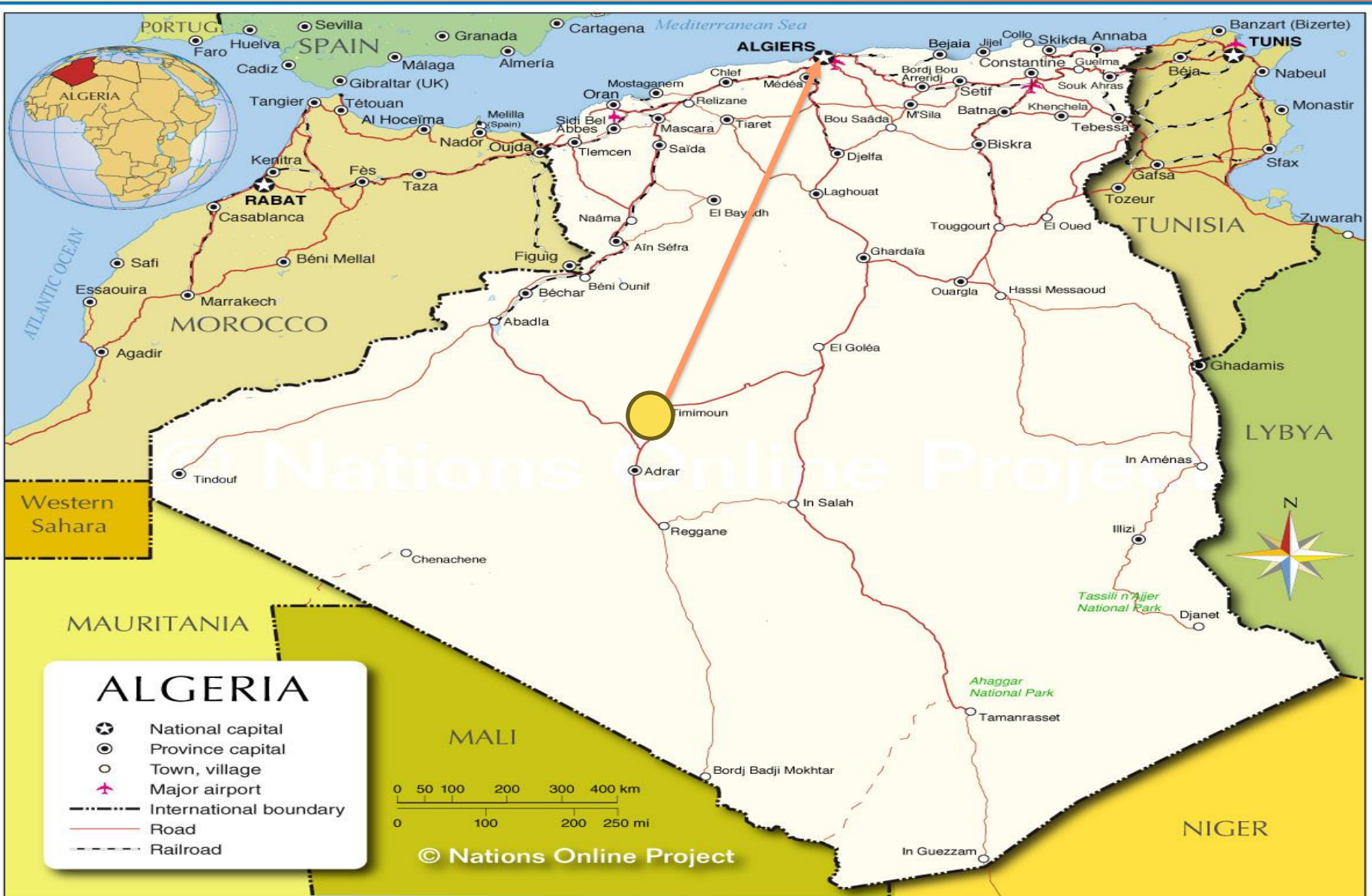
Expert Architect of Monuments and Protected Sites
Ministry of Culture
Algeria



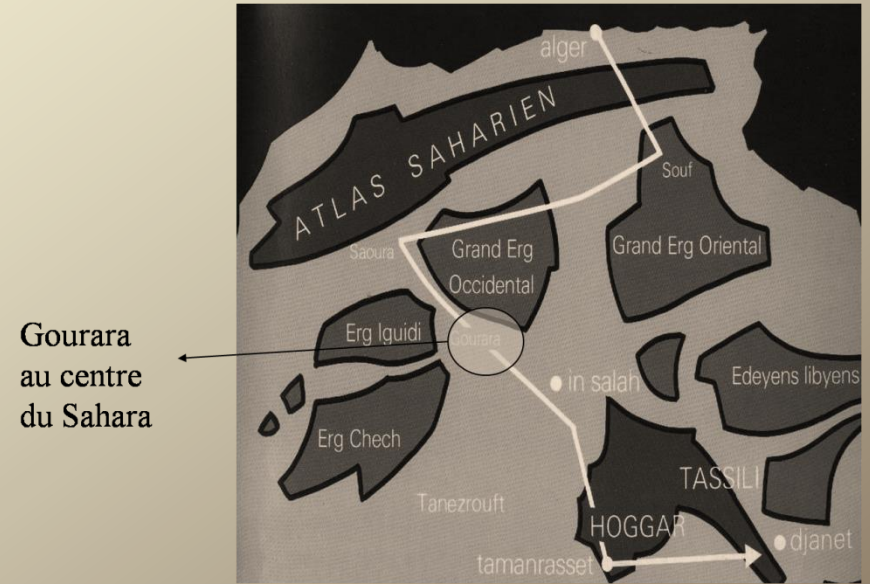
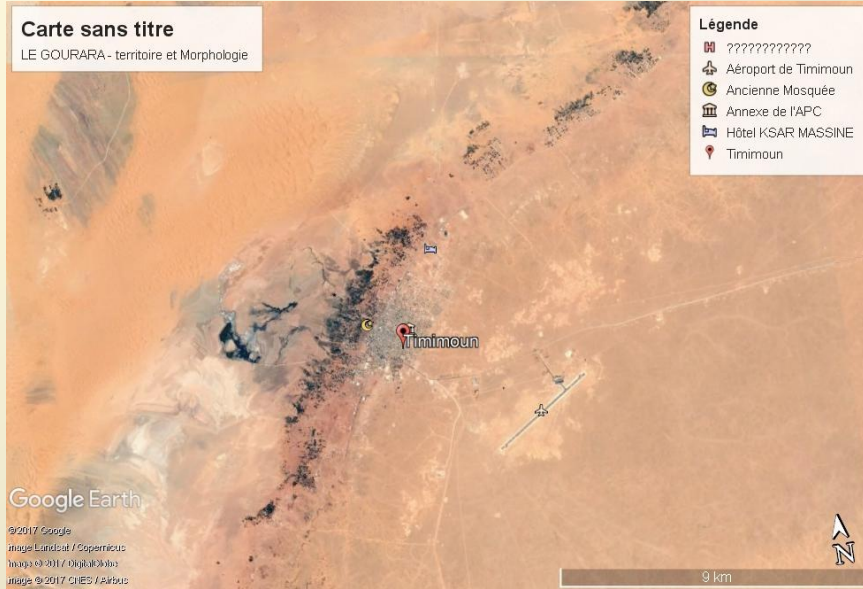
***TIMIMIMOUN " the " Red Oasis " Sanctuary of Saharan
Architecture in Algeria***



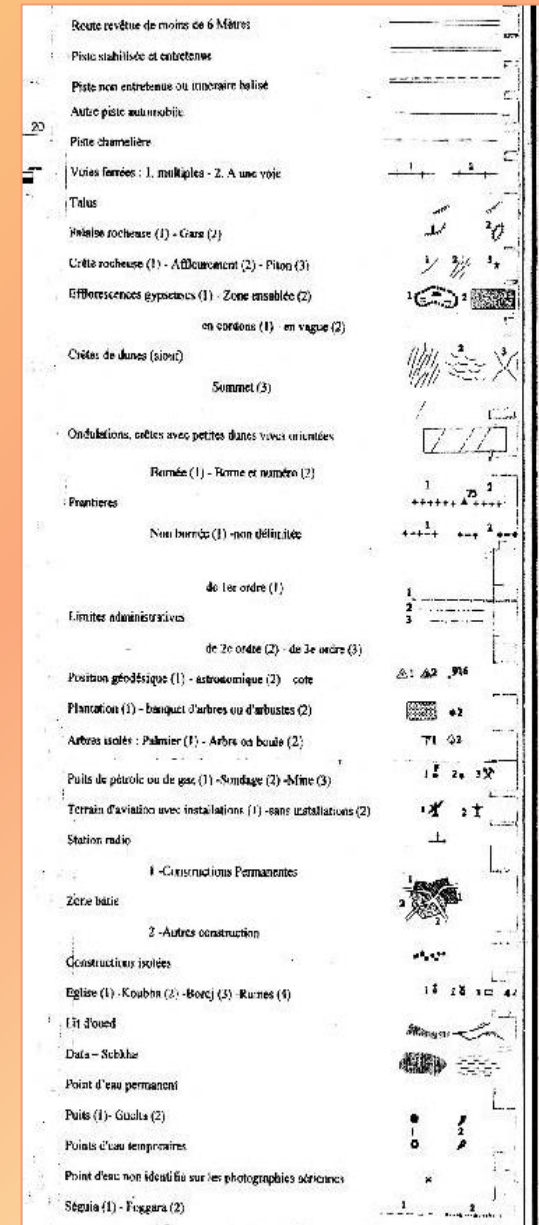
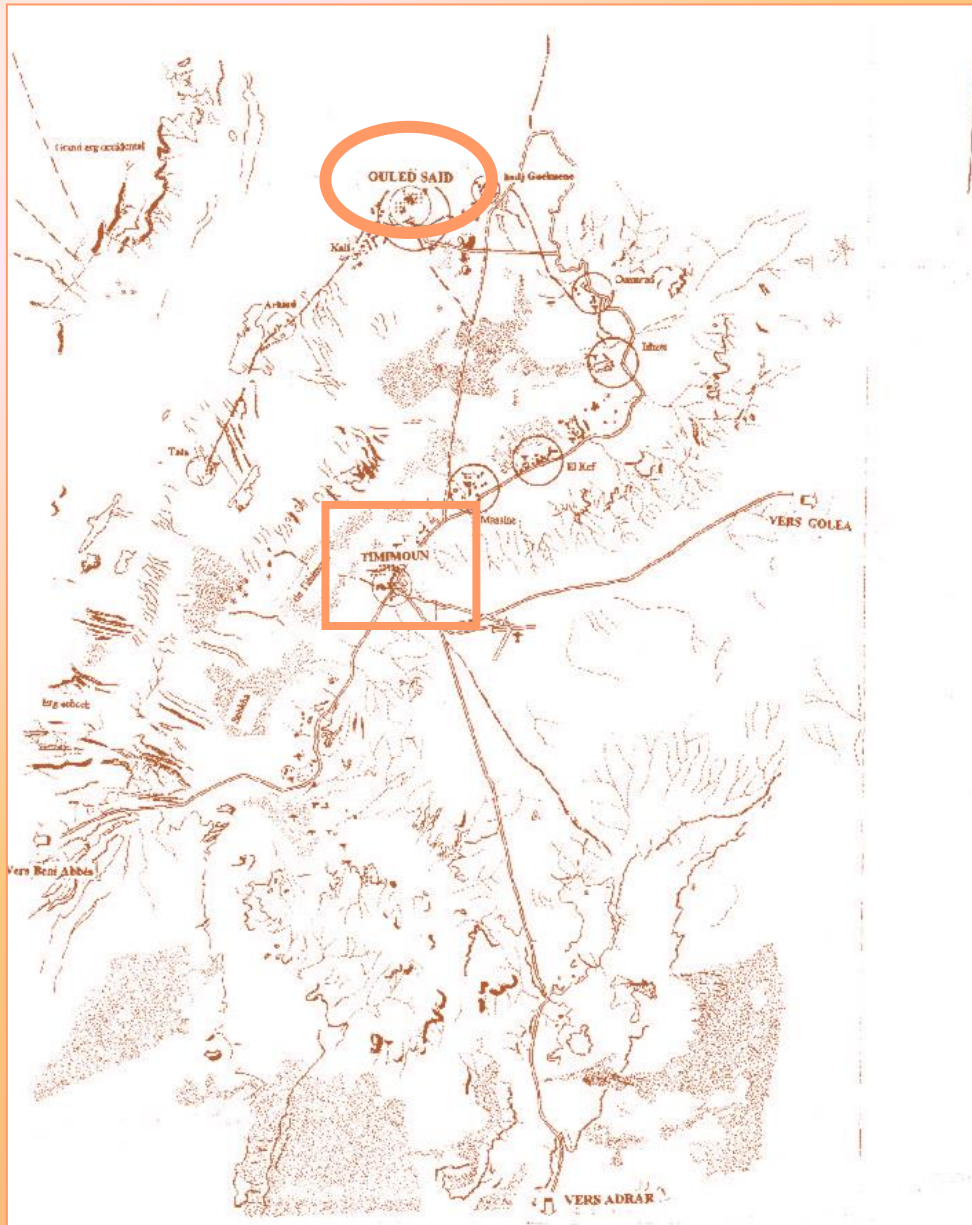
Geographical Situation of Timmimoun



Presentation of the territory of « Timmimoun »



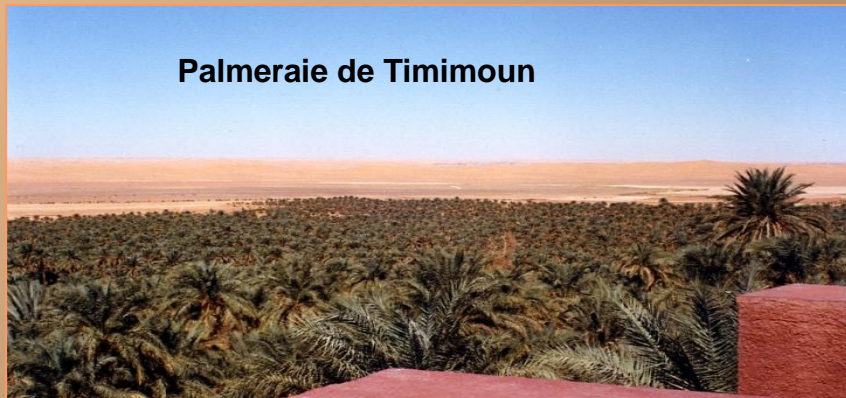
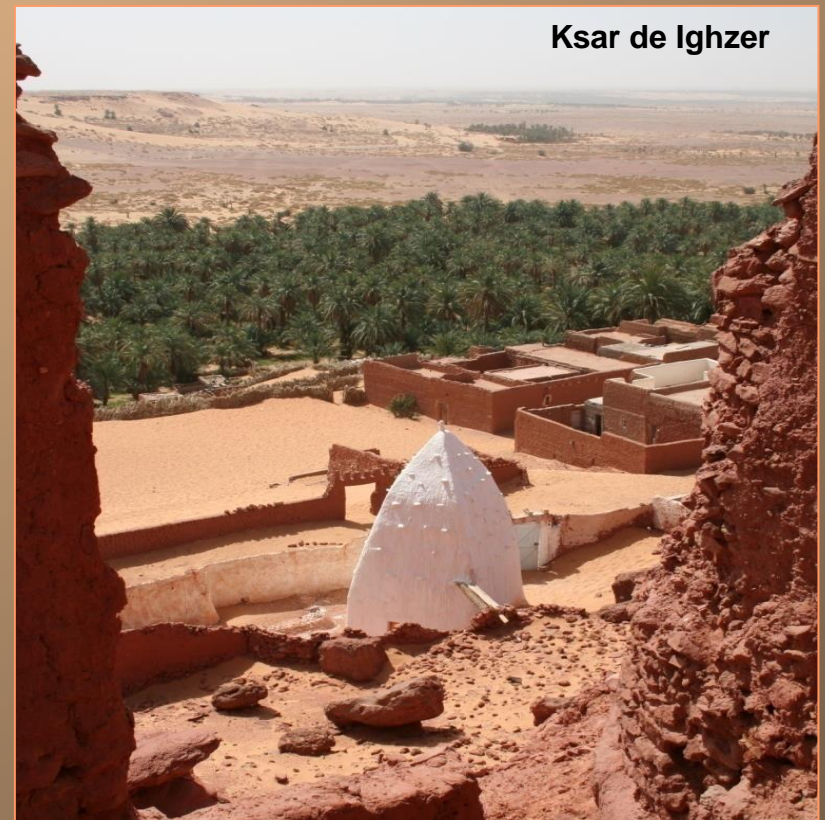
Situation of the Ksour (Old City) – Territory Presentation



Identification of geomorphological components of the Timimoun Ksour territory



Different forms of landscapes: nature / culture of the Timimoun Ksour



Identification of intervention themes on the Timimoun Ksour



Degradation of the Ksar



Identification of intervention themes on the Timimoun Ksour



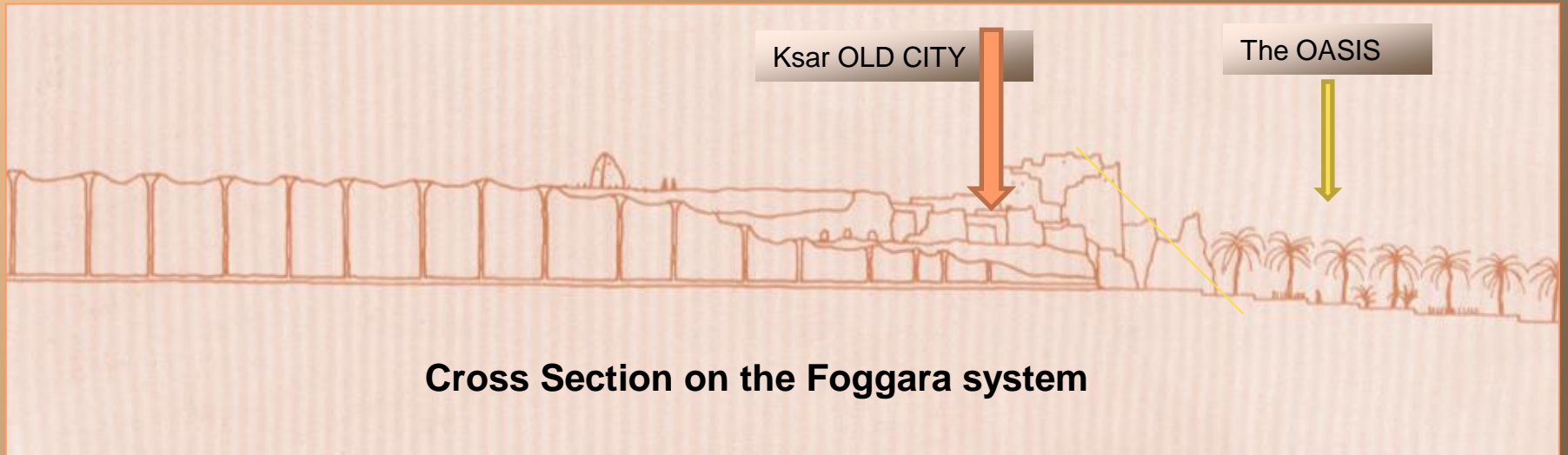
Water as a structuring factor (système OF FOGGARA)



VIEW in plan of the Kasseria Of Foggara

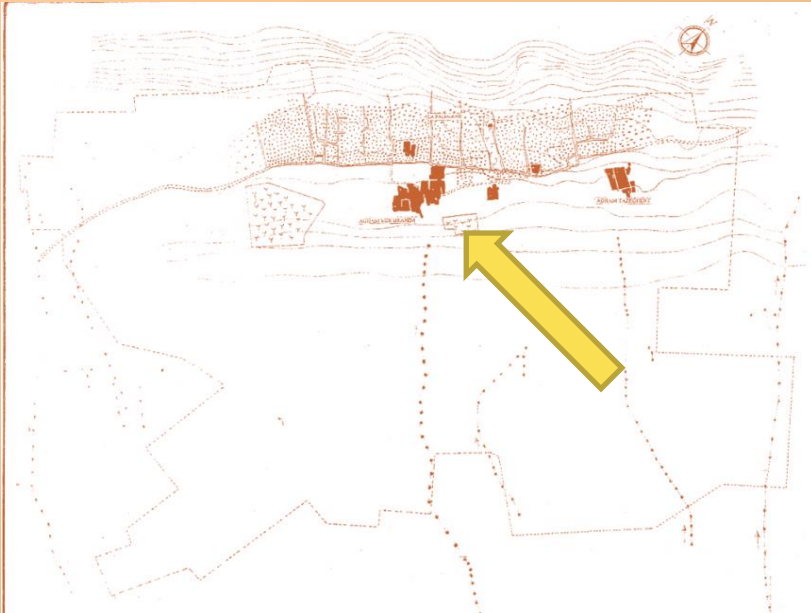


Overview of The Kasseria



Cross Section on the Foggara system

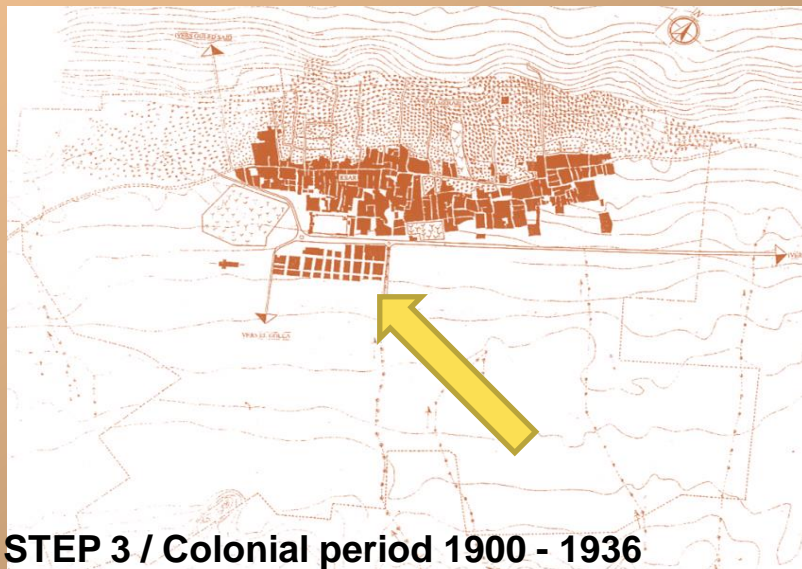
Historical process of formation / transformation - Ksar de Timimoun



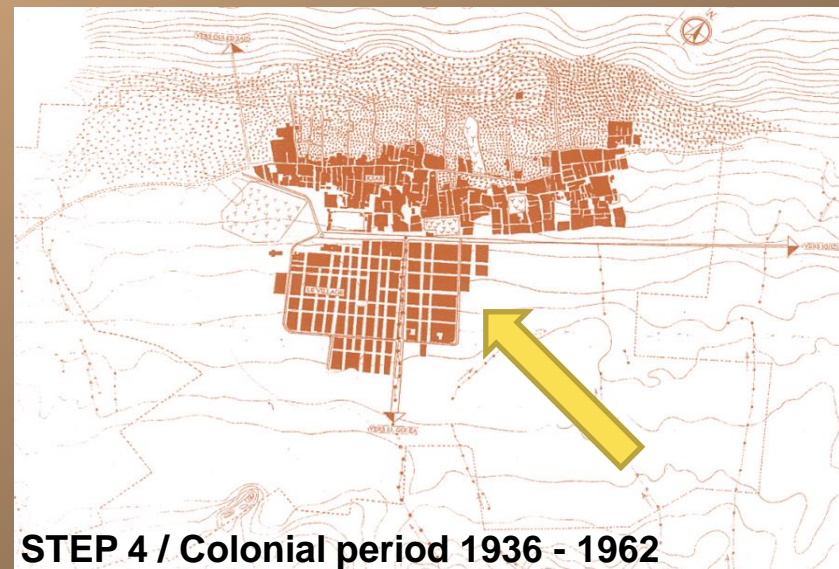
STEP 1 / Intramural period 300 AJC



STEP2 / Period extra- muros X in the 19th century

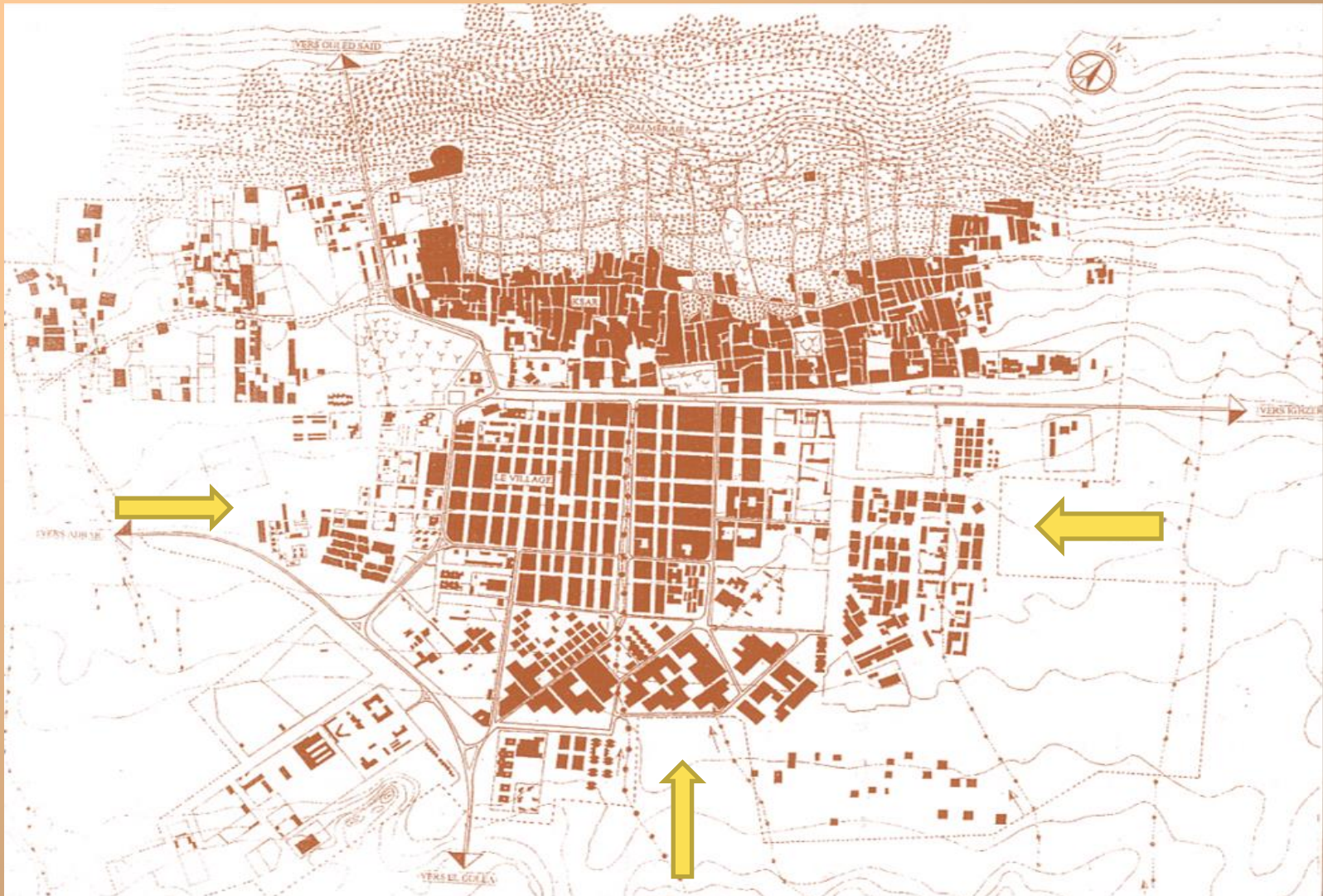


STEP 3 / Colonial period 1900 - 1936



STEP 4 / Colonial period 1936 - 1962

Historical process of formation / transformation - Ksar Of - Timimoun



STEP 5 / Post-colonial period 1962 -1992

Presentation of the city of Timimoun

Central market place



Administrative Headquarters

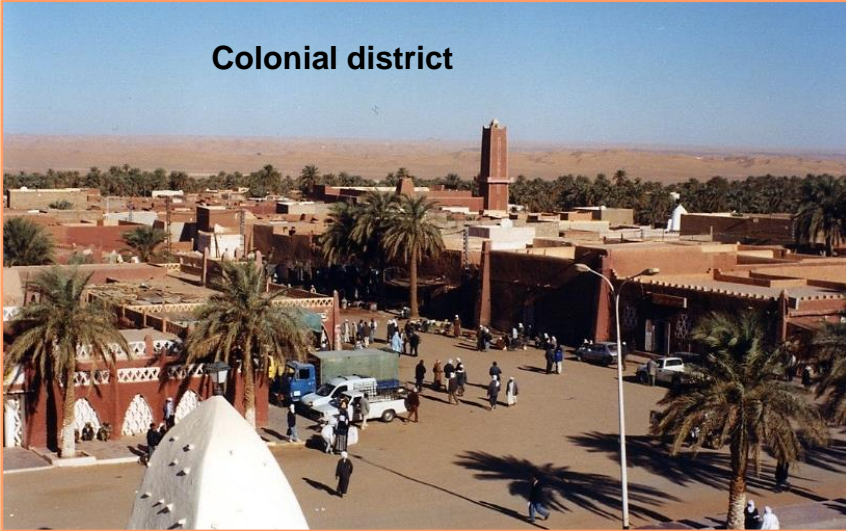


Monumental gate of Soudan

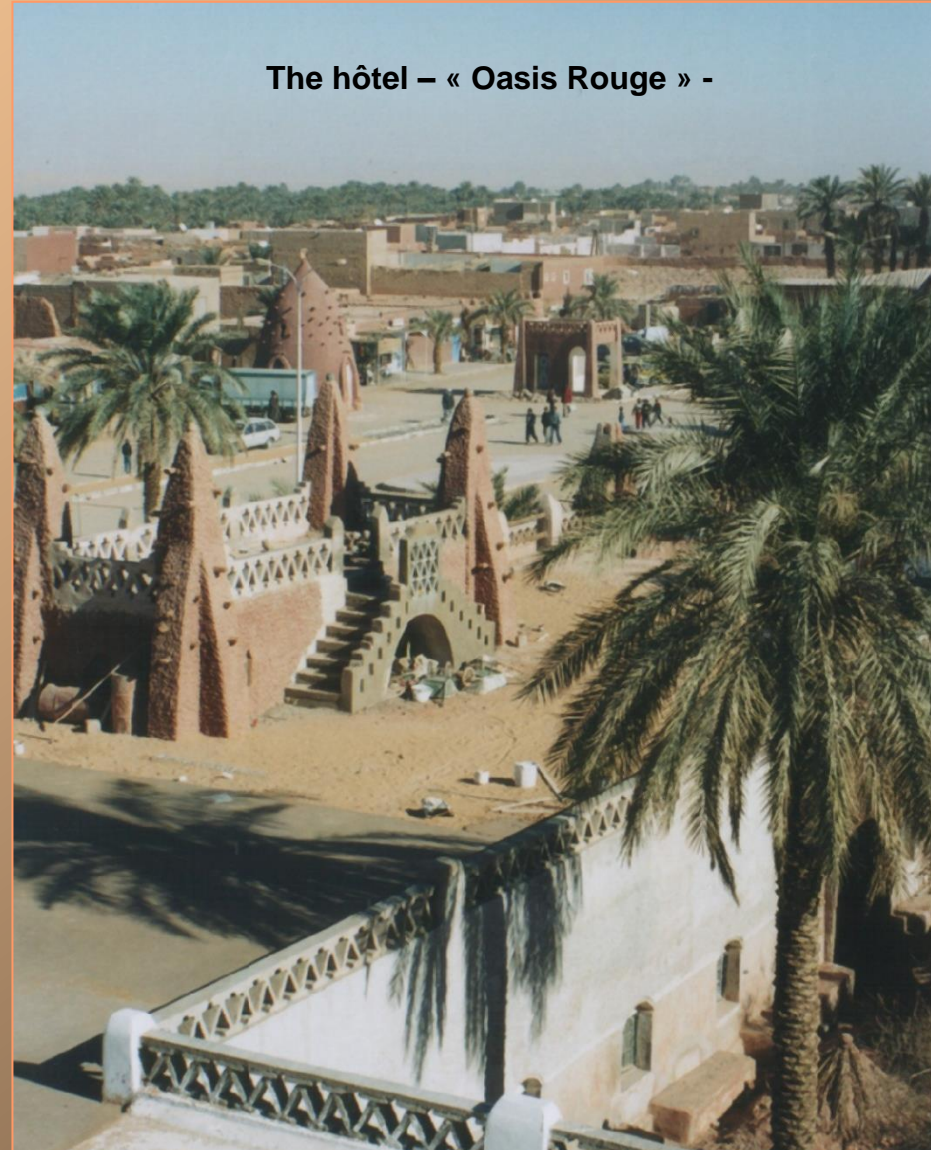


Presentation of the city of Timimoun

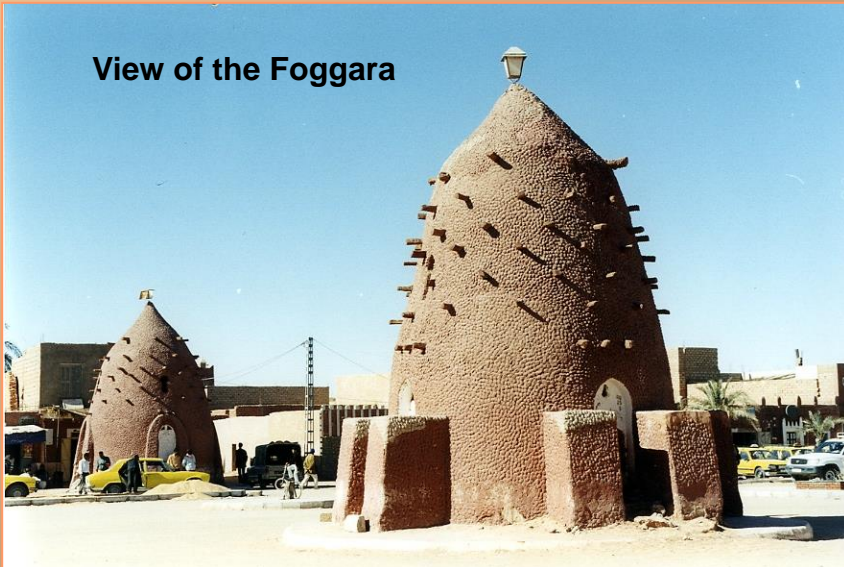
Colonial district



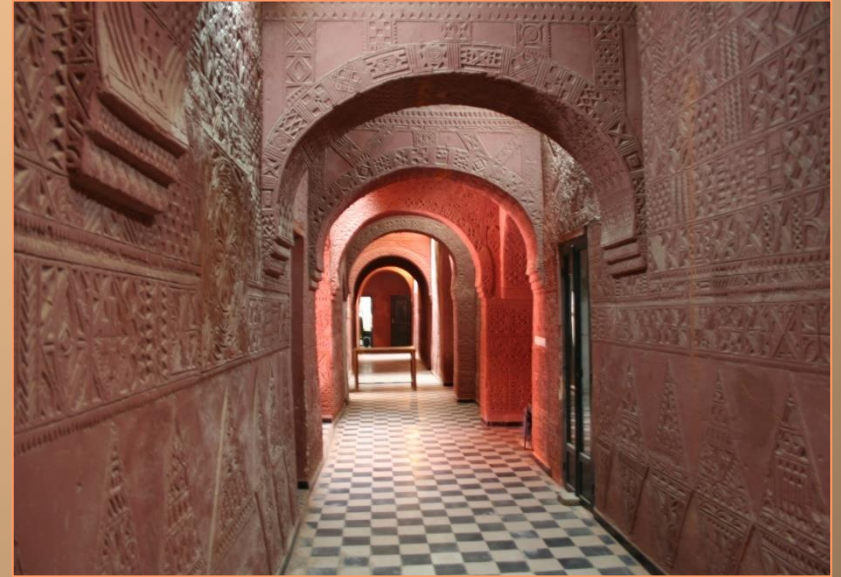
The hôtel – « Oasis Rouge » -



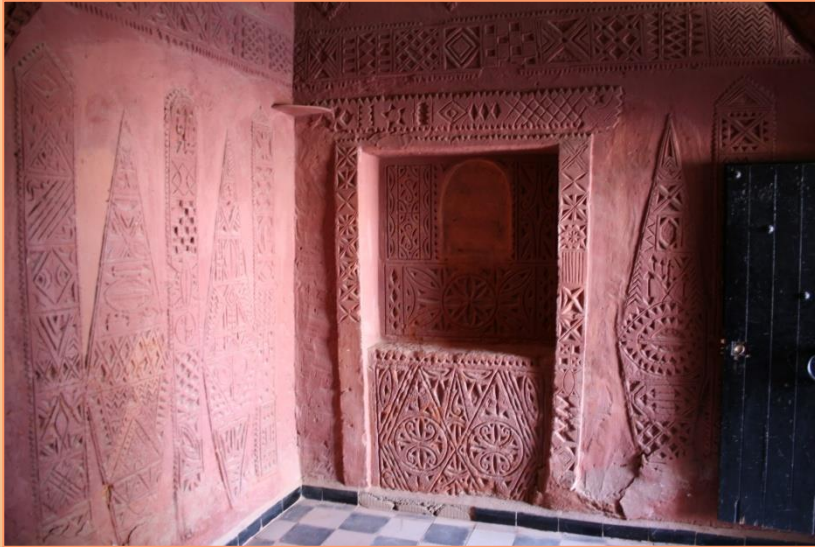
View of the Foggara



Different views for the l'hôtel – RED Oasis -



Architectural details OF the hôtel – Red Oasis -



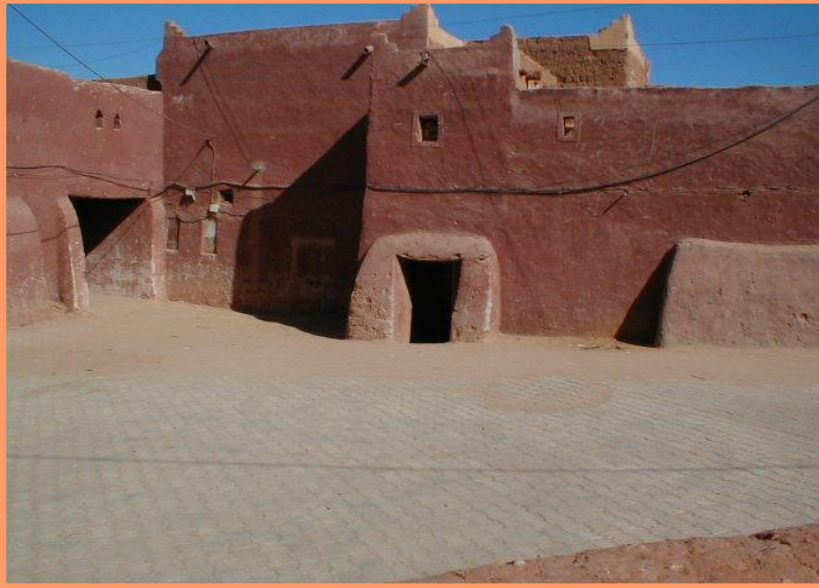


urban dwellings

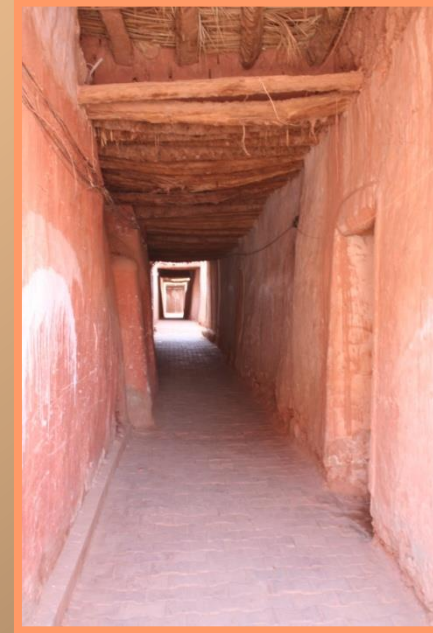


The mosque

Distribution system for the traditional compact ksours fabric



View of the Rahbas (plots)



the routes



Historical process of formation / transformation -of the Ksar



Planimetric restitution of the Ksar Sheikh - 2002

Historical process of formation / transformation -of the Ksar



Parcelle Familiale



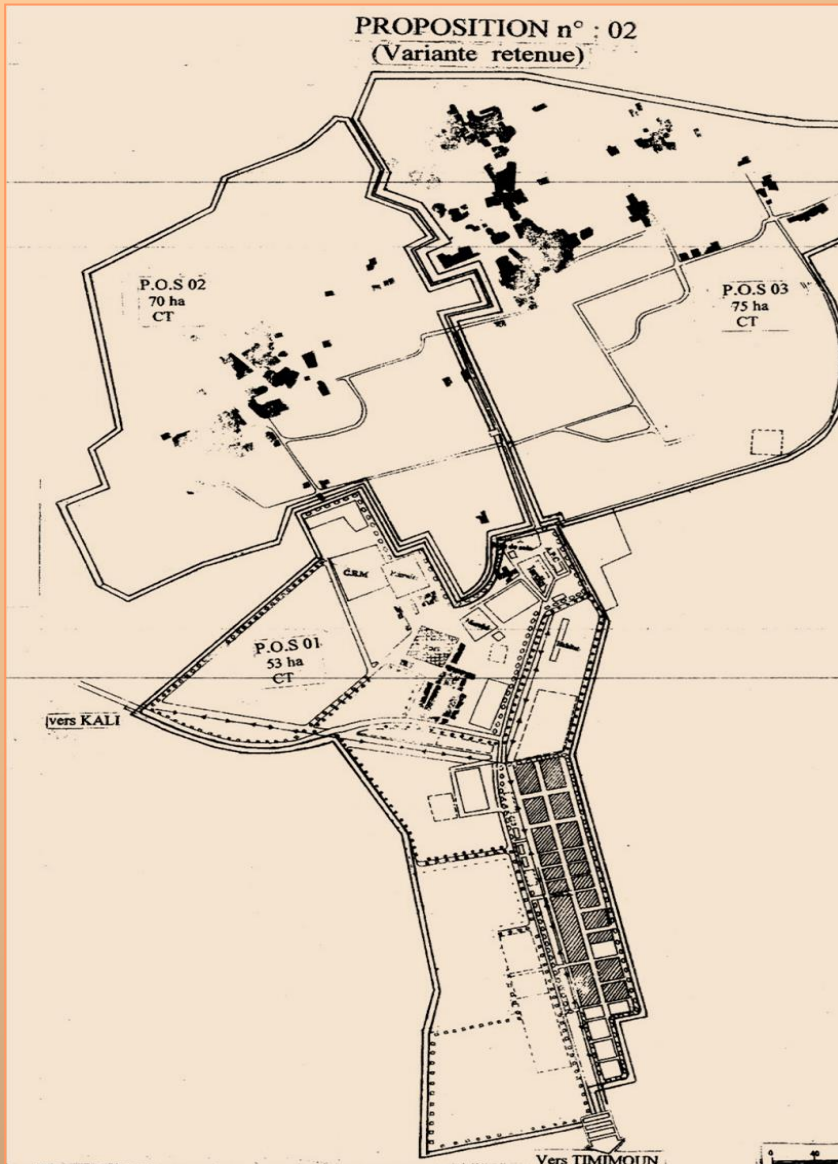
Perpendicularité des parcours



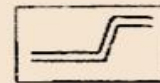
Système constructif



Historical process of formation / transformation -of the Ksar



LEGENDE



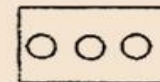
Périmètre urbain.



Périmètre d'urbanisation a court terme.



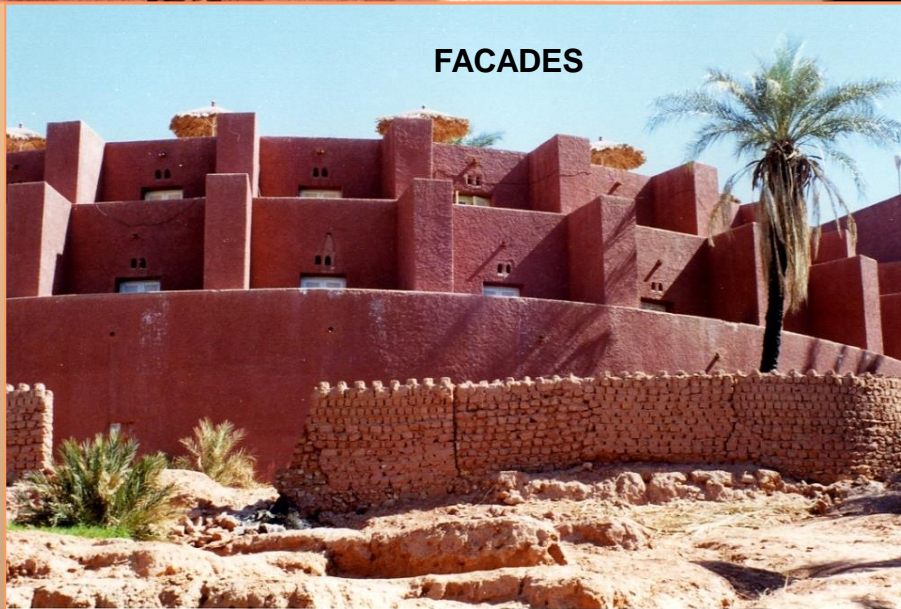
Périmètre d'urbanisation a moyen terme.



Périmètre d'urbanisation a long terme.

Hotel Gourara as a contemporary architectural reference in Timimoun

(Arch.F.Pouillon) - 1974 -

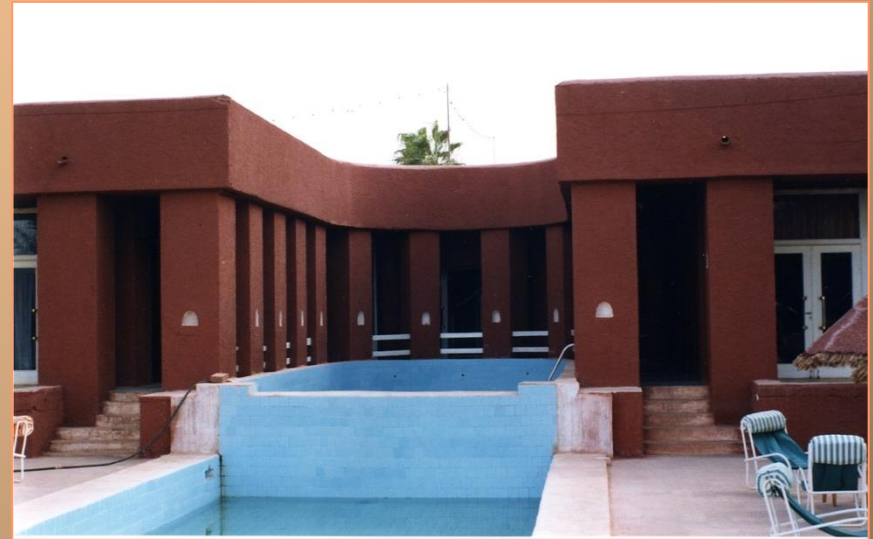


Hotel Gourara as a contemporary architectural reference in Timimoun

(Arch.F.Pouillon) - 1974 -



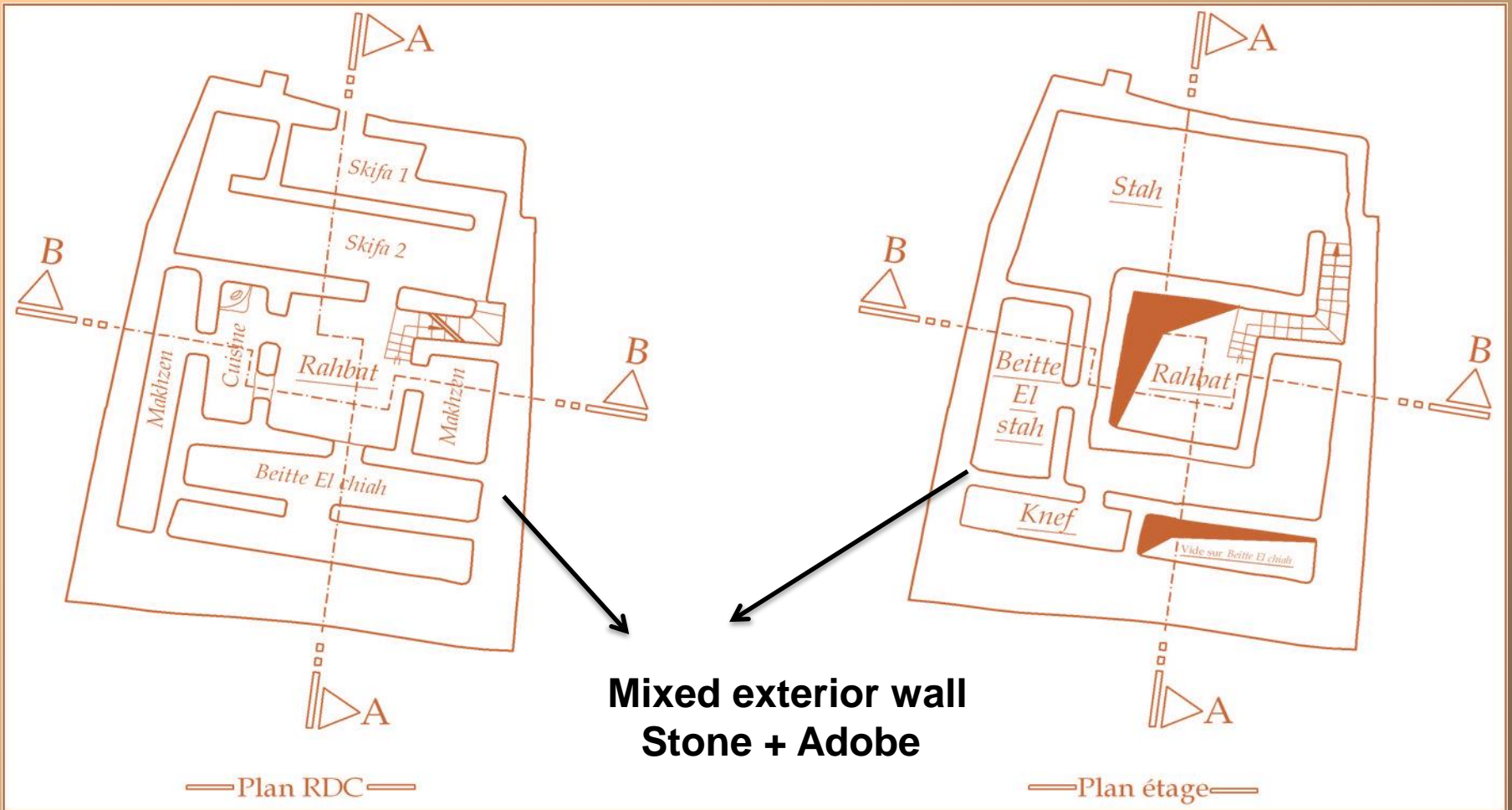
THE RESTAURANT



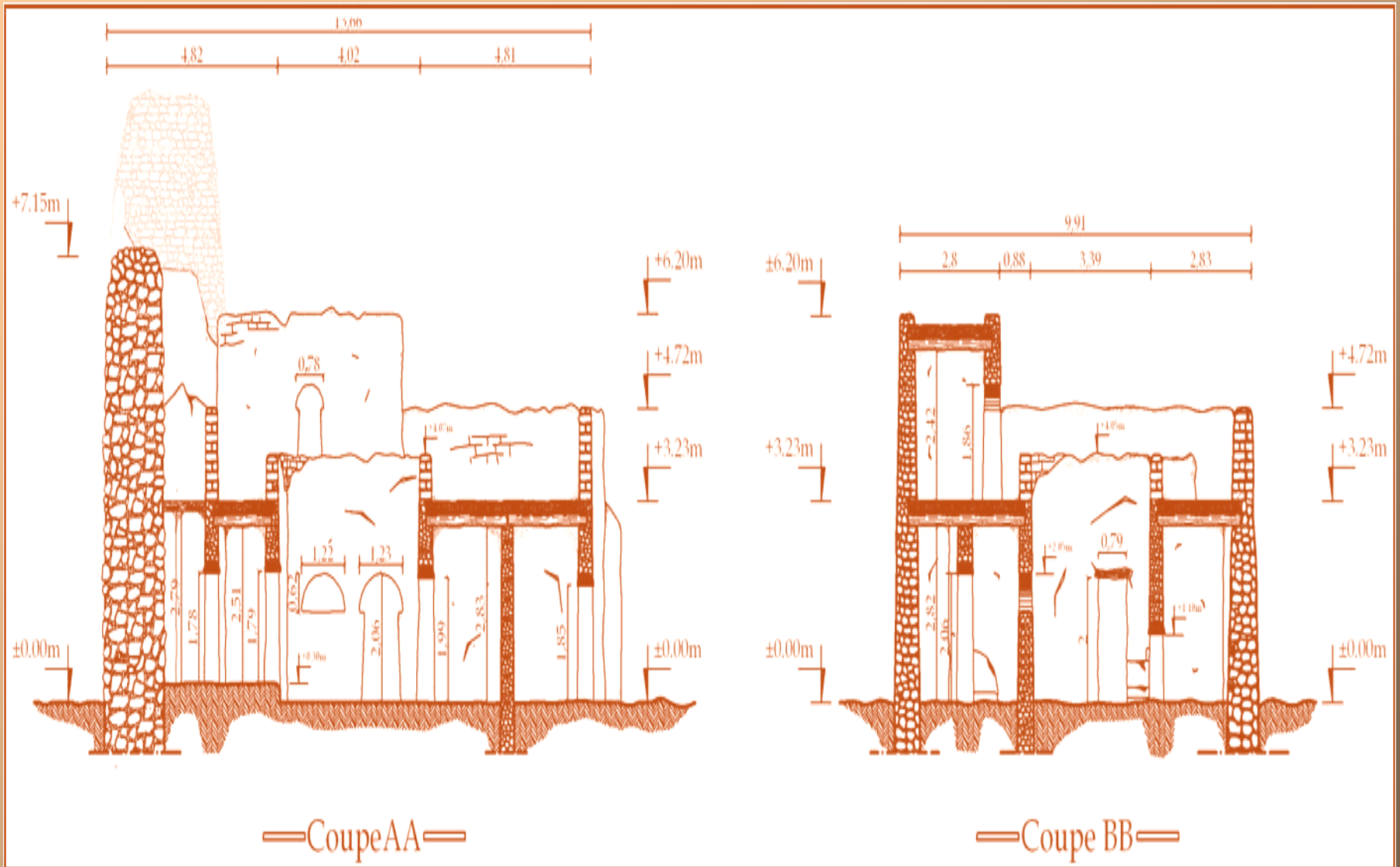
GARDEN AND SWEMING POOL



TYOLOGICAL READING. CASE 1 / THE DWELLING UNIT



TYOLOGICAL READING .CASE 1 / THE HOUSING UNIT--

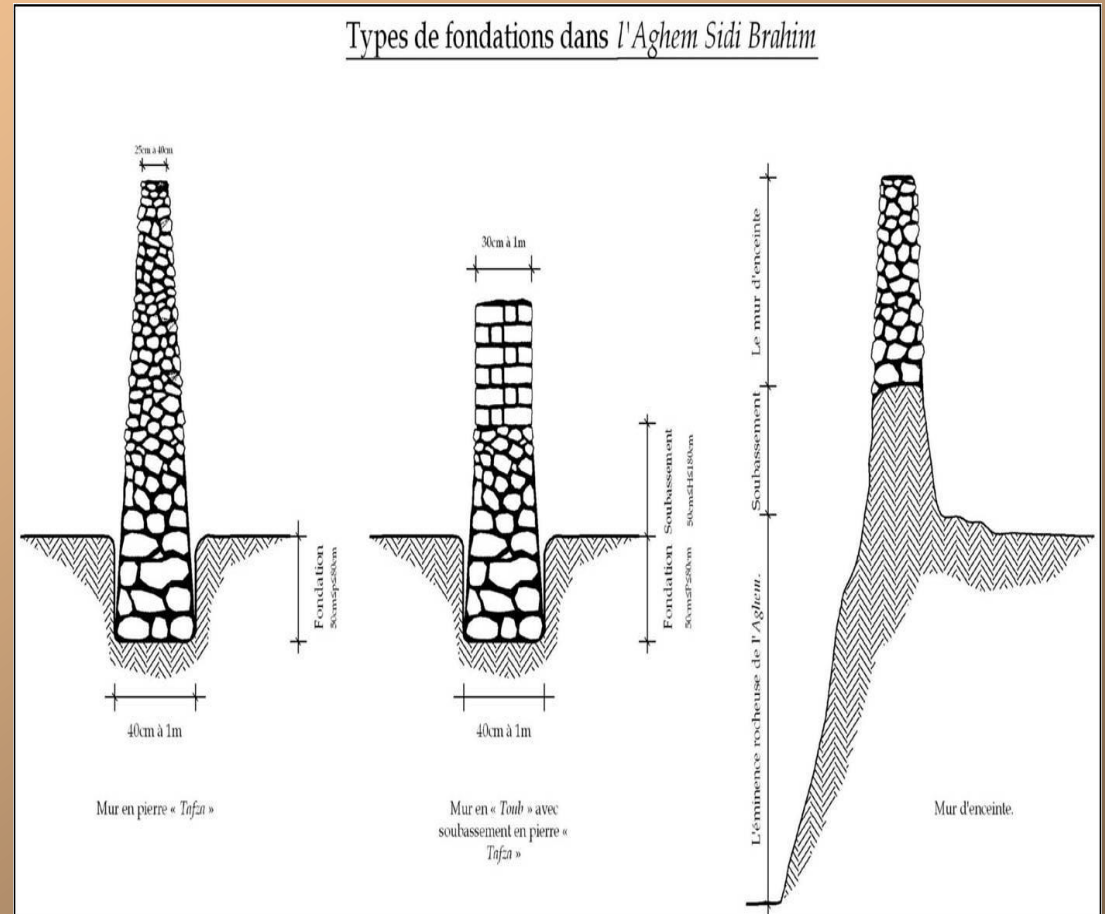
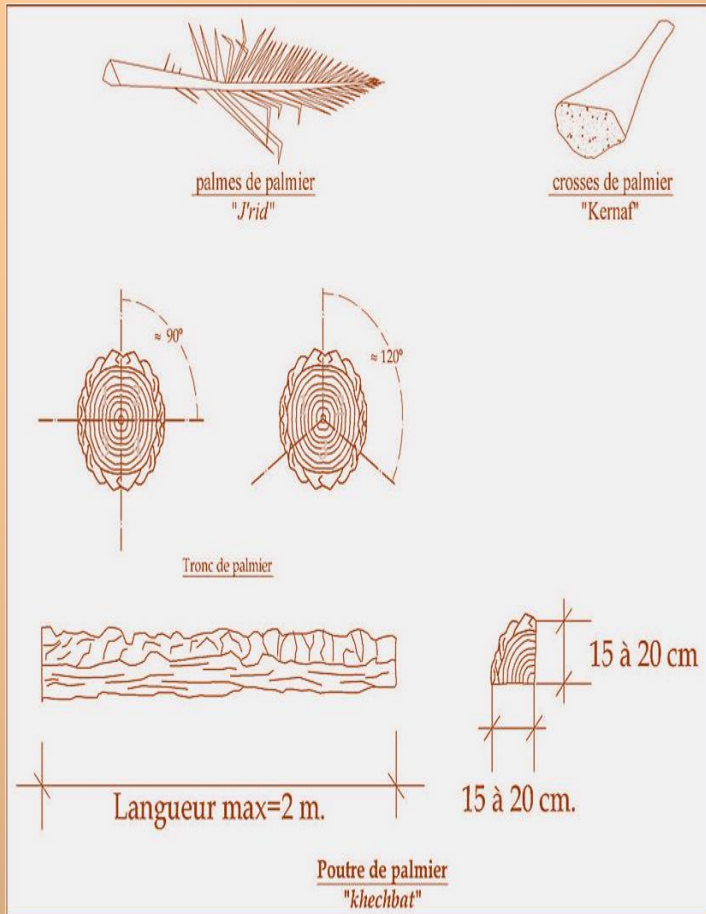


The separation walls



MATERIALS AND CONSTRUCTION TECHNIQUES"

« THE ADOBE AS A LOCAL REFERENCE MATERIAL. »



Palm wood as an accompanying material in the ceiling structure

Types of Foundations

CONSTRUCTION MATERIALS AND TECHNIQS

DRAWING A

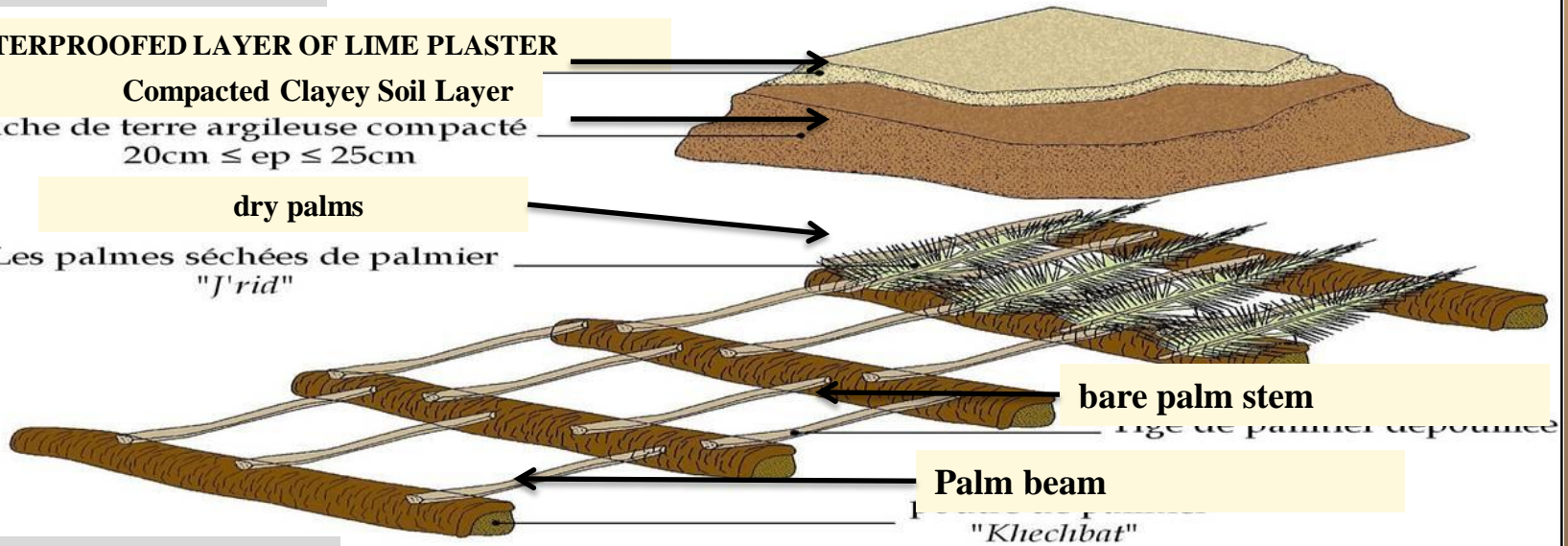
WATERPROOFED LAYER OF LIME PLASTER

Compacted Clayey Soil Layer

Couche de terre argileuse compacté
 $20\text{cm} \leq \text{ep} \leq 25\text{cm}$

dry palms

Les palmes séchées de palmier
"J'rid"



DRAWING B

Plancher B:

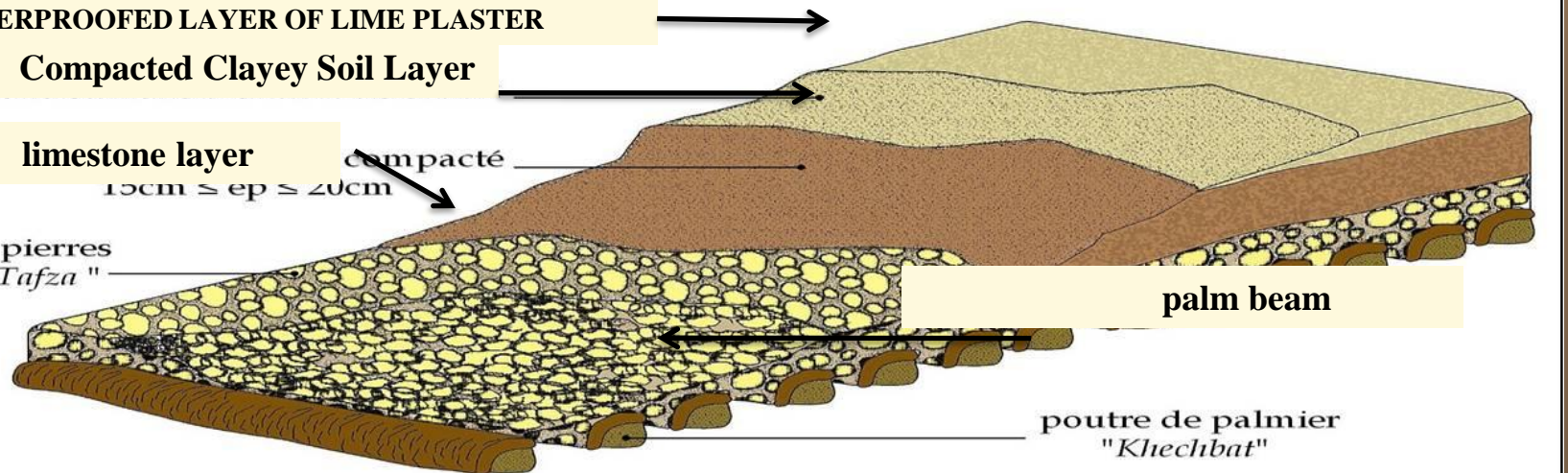
WATERPROOFED LAYER OF LIME PLASTER

Compacted Clayey Soil Layer

limestone layer

compacté
 $15\text{cm} \leq \text{ep} \leq 20\text{cm}$

Couche de pierres calcaires "Tafza"



TYOLOGICAL READING .CASE 1 / THE HOUSING UNIT--

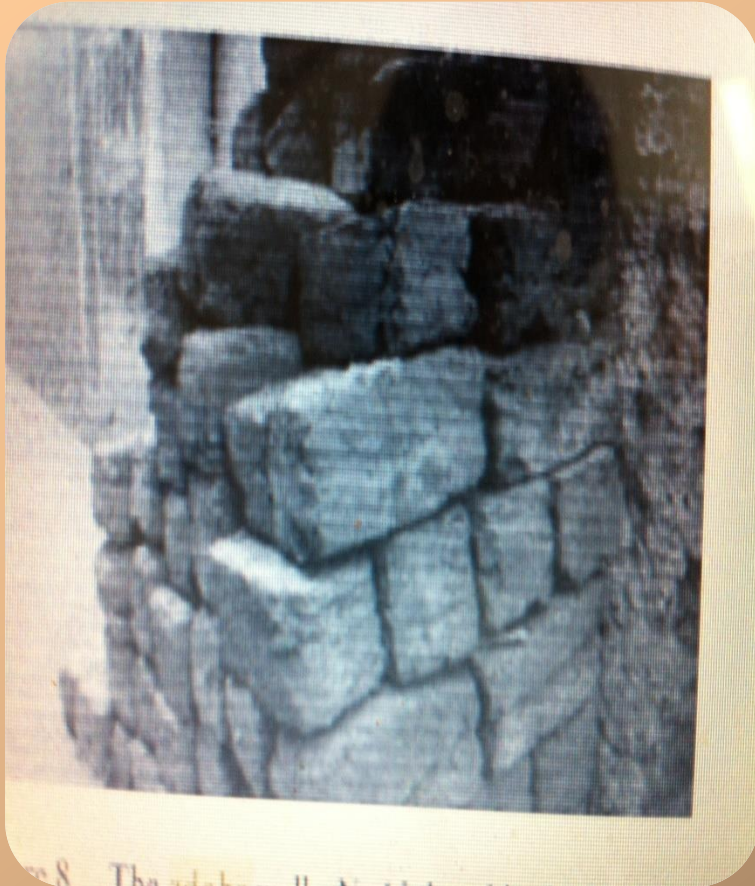


PHOTO 01



PHOTO 02

Questioning Sustainable Development

Développement implies structural modifications, where as sustainability supposes continuity. Which resources have to be preserved for the générations to come, if today we do not know which will be essential?

Sustainability makes the dead end on the fact that the history of humanity is an alternation of more or less stationary phases and brutal ruptures.

Can we really connect global and local scales in a large machinery, as if same principles governed the whole world and each single place?.

Actually, **sustainable development dreams an unrealistic smooth world without clashes, conflicts, crises.**

François Mancebo

ANSWERS

- **Admittedly, in the first instance, its définition remains simple:**
 - 1- It is about promoting développment that meets the needs of societies today without compromising those of future generations.
 - 2- It is based on the awareness of the finiteness of our bio-physical environment.

But, with such a definition, sustainable development is relatively quickly placed at the heart of three contradictions that are difficult to reconcile:

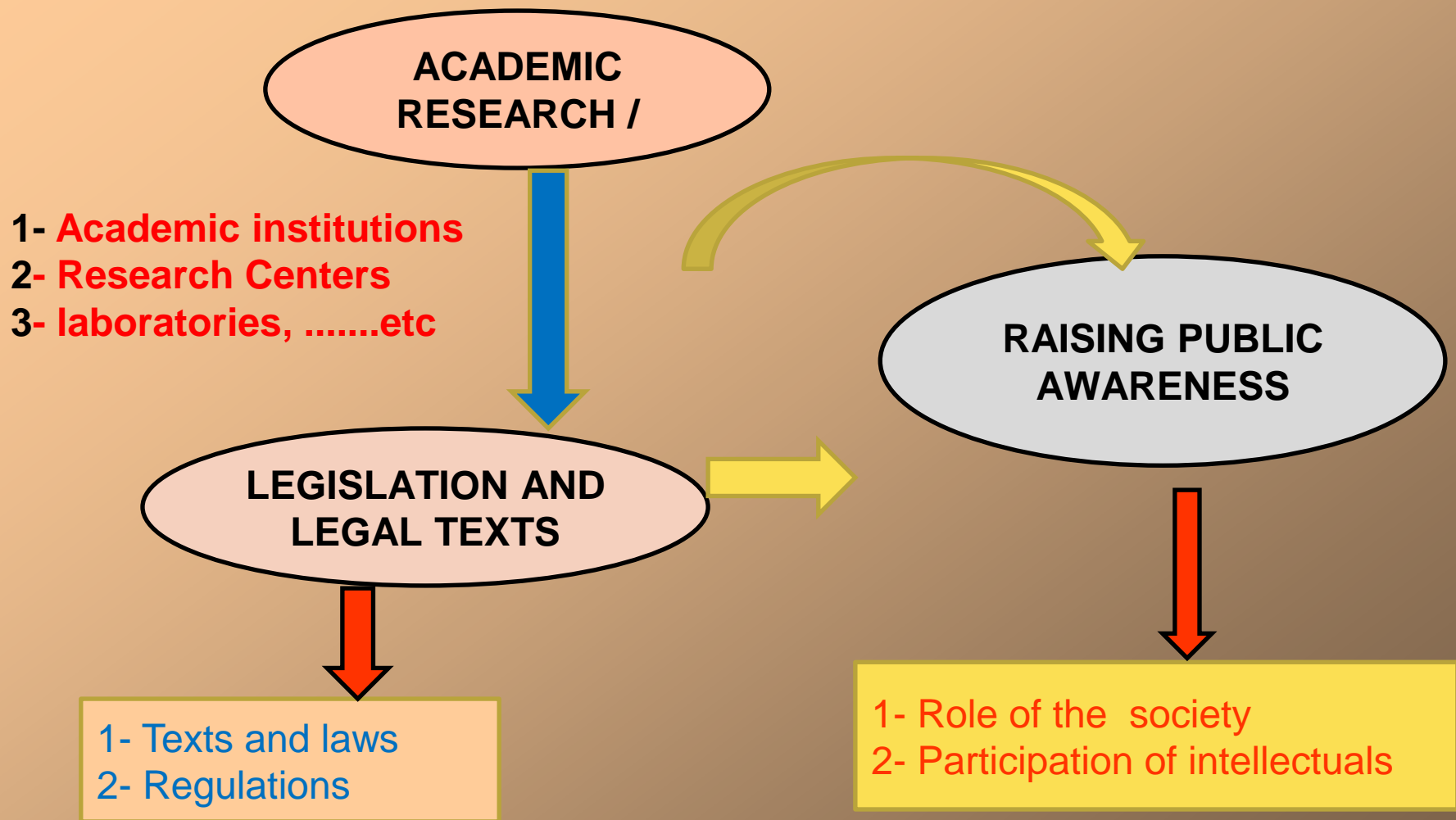
- 1- compromise between the interests of current and future generations;
- 2- compromise between the priorities of industrialized and developing countries;
- 3- compromise between quality of life and ecosystem preservation.

THE SOLUTION .

SHE'S IN TRAINING? --



THE SOLUTIONIN TRAINING? --



THE TRAINING PROGRAM

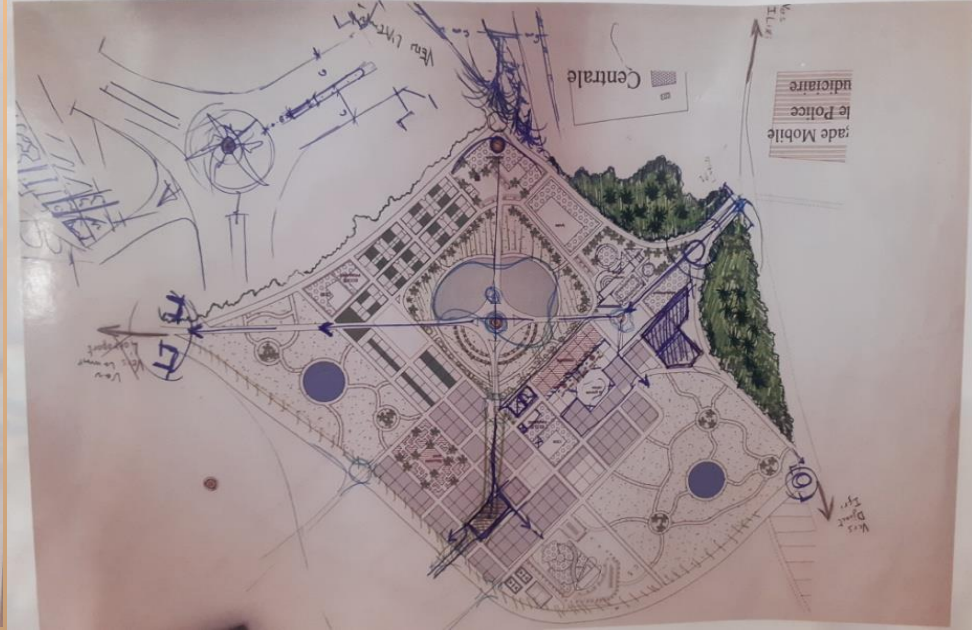
- ❖ Definition of construction composition elements
- ❖ Material resistance comparative aspect
- ❖ Structural bonding technique
- ❖ Site organization
- ❖ Properties of building materials and their roles
- ❖ Preventive techniques for improving construction quality
- ❖ Special structures





- **VIEWS ON THE APPLICATION**
- **Using Adobe Bricks**

IS IT POSSIBLE TO CREATE NEW SYSTEMS OF PLANNING IN URBAN AREAS ?



NIVEAU DU SEMI COLLECTIF SITUÉ.... ET L'INDIVIDUELLE SITUÉ
RIDEAU VERT



New CONCEPTION OF THE URBAN SAHARAN AREA



NEW PROJECT / IS NEW VISION

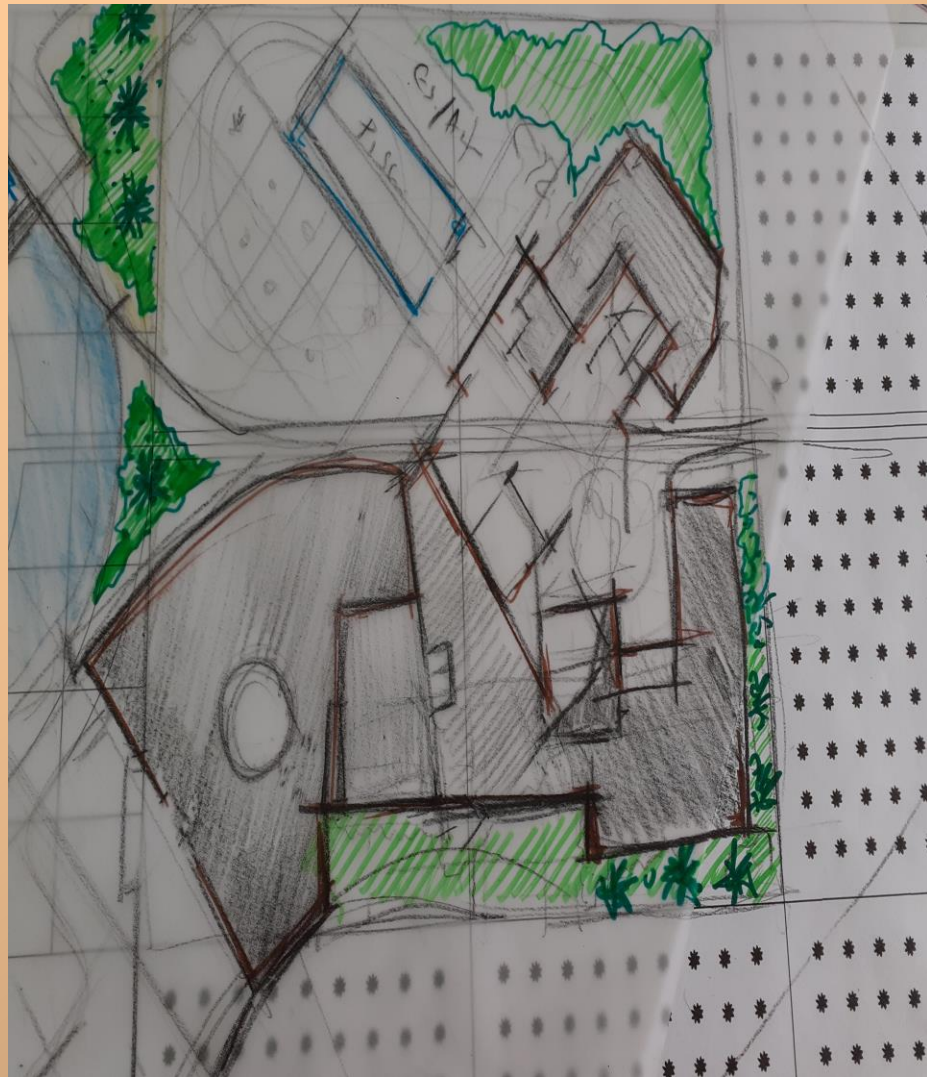




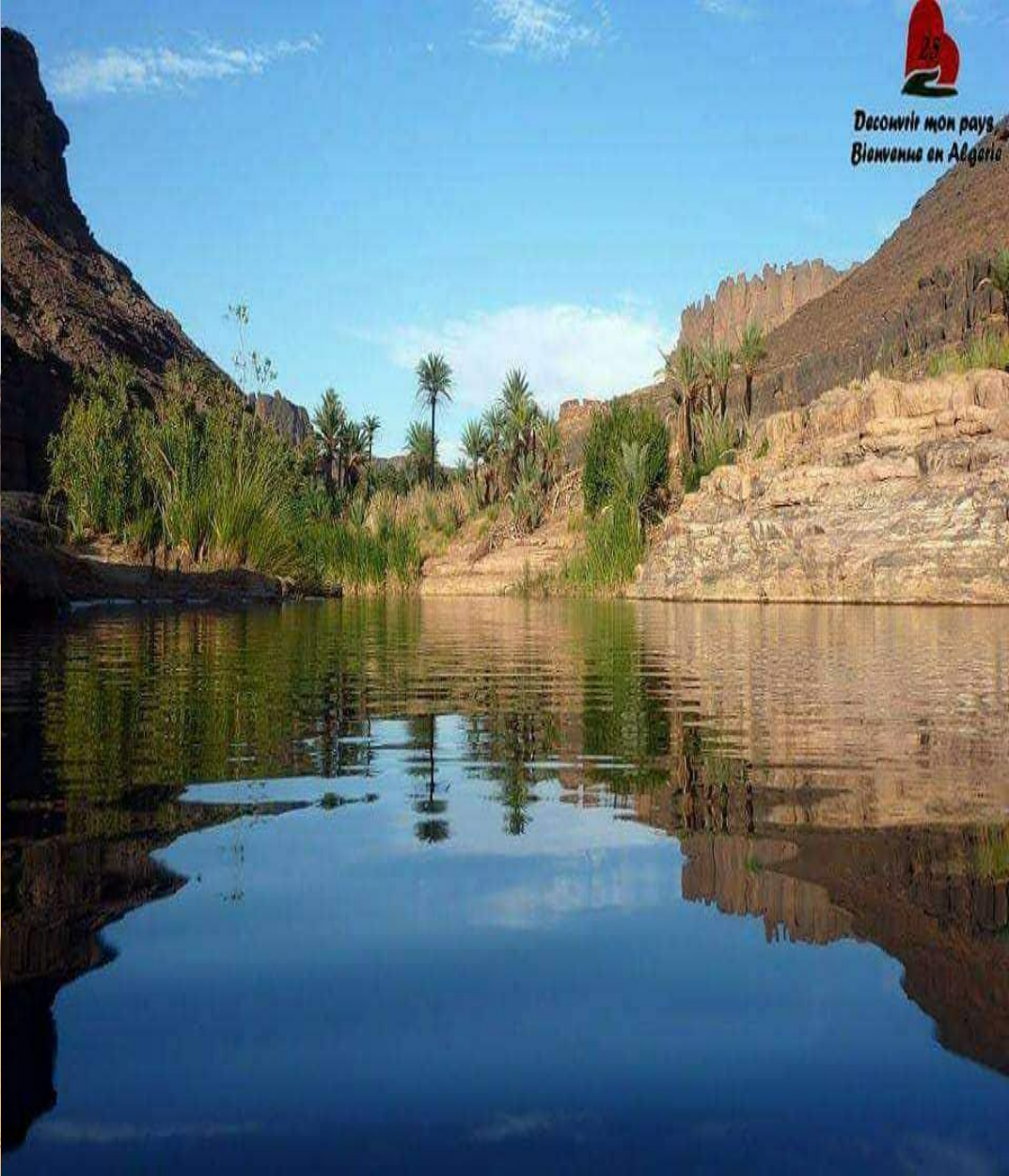




DEVELOPPING THE IDEA / POSSIBILTY TO BUILD A NEW ARCHITECTURAL PROJECT ?







THANK YOU FOR YOUR ATTENTION