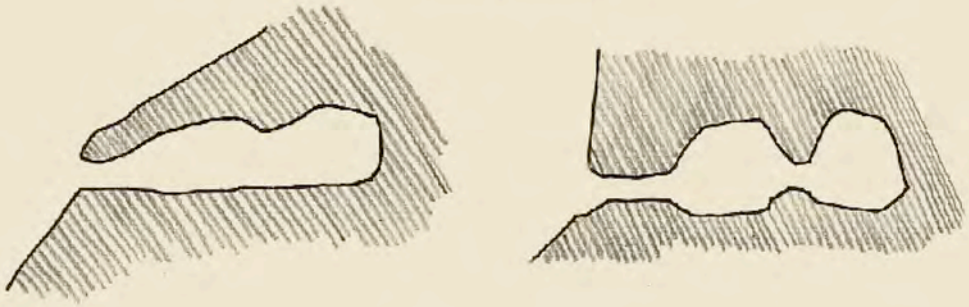

Immaginate
un riparo nel deserto
prima di costruire una casa
dentro le mura della città
G. Kahlil Gibran, "Il profeta"

Il deserto sottrae
in modo semplice e
grandioso

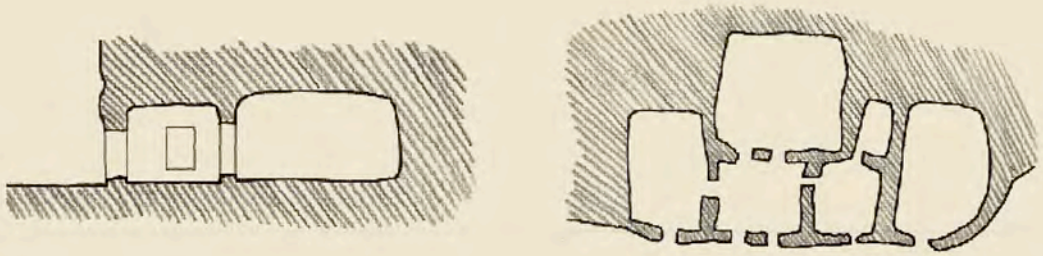
Architettura della sottrazione

Tipologie di Insediamenti Troglodíti

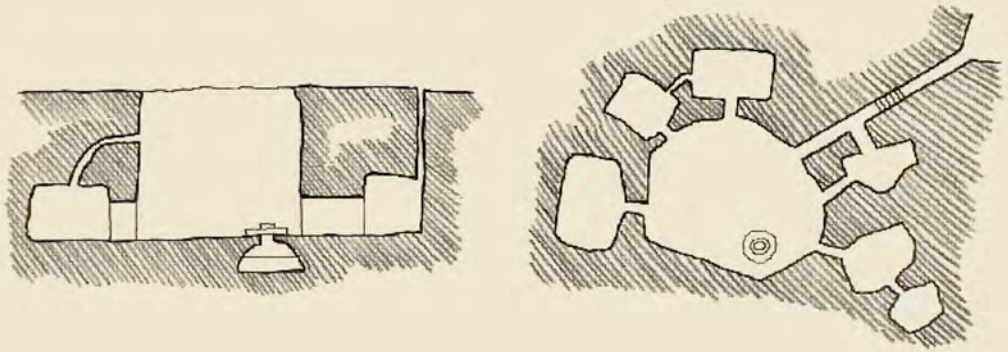
1 - Cavità Naturali



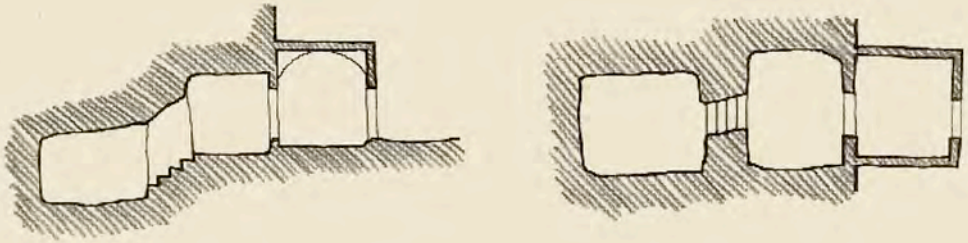
2 - Strutture Rupestri



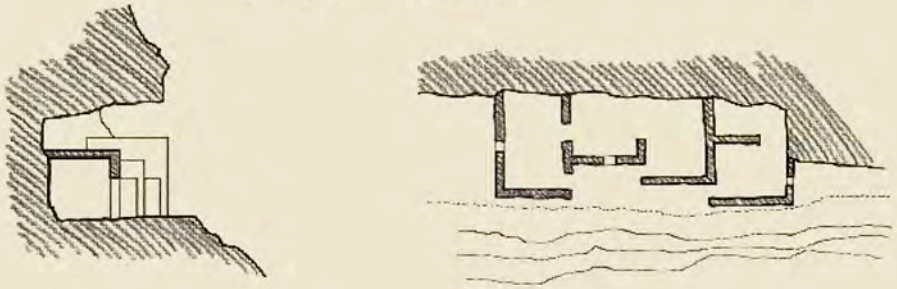
3 - Strutture Ipogee



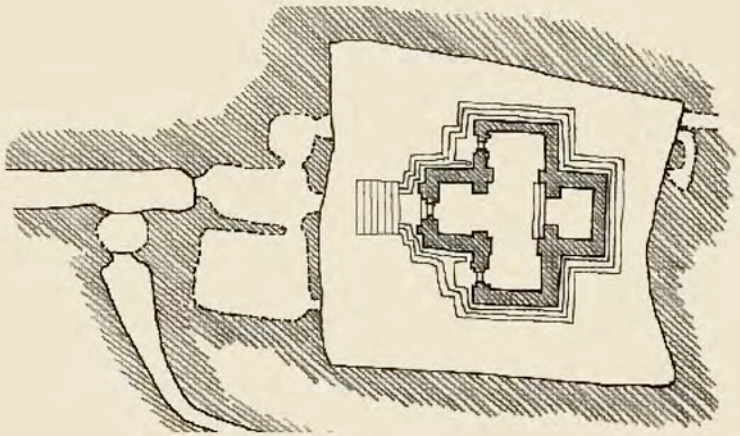
4 - Strutture Miste



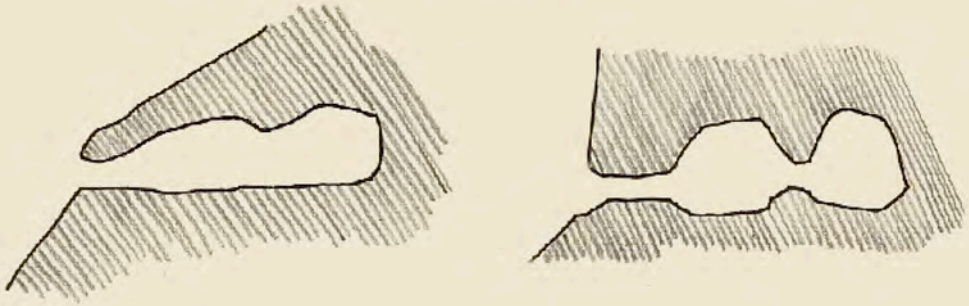
5 - Strutture Addossate



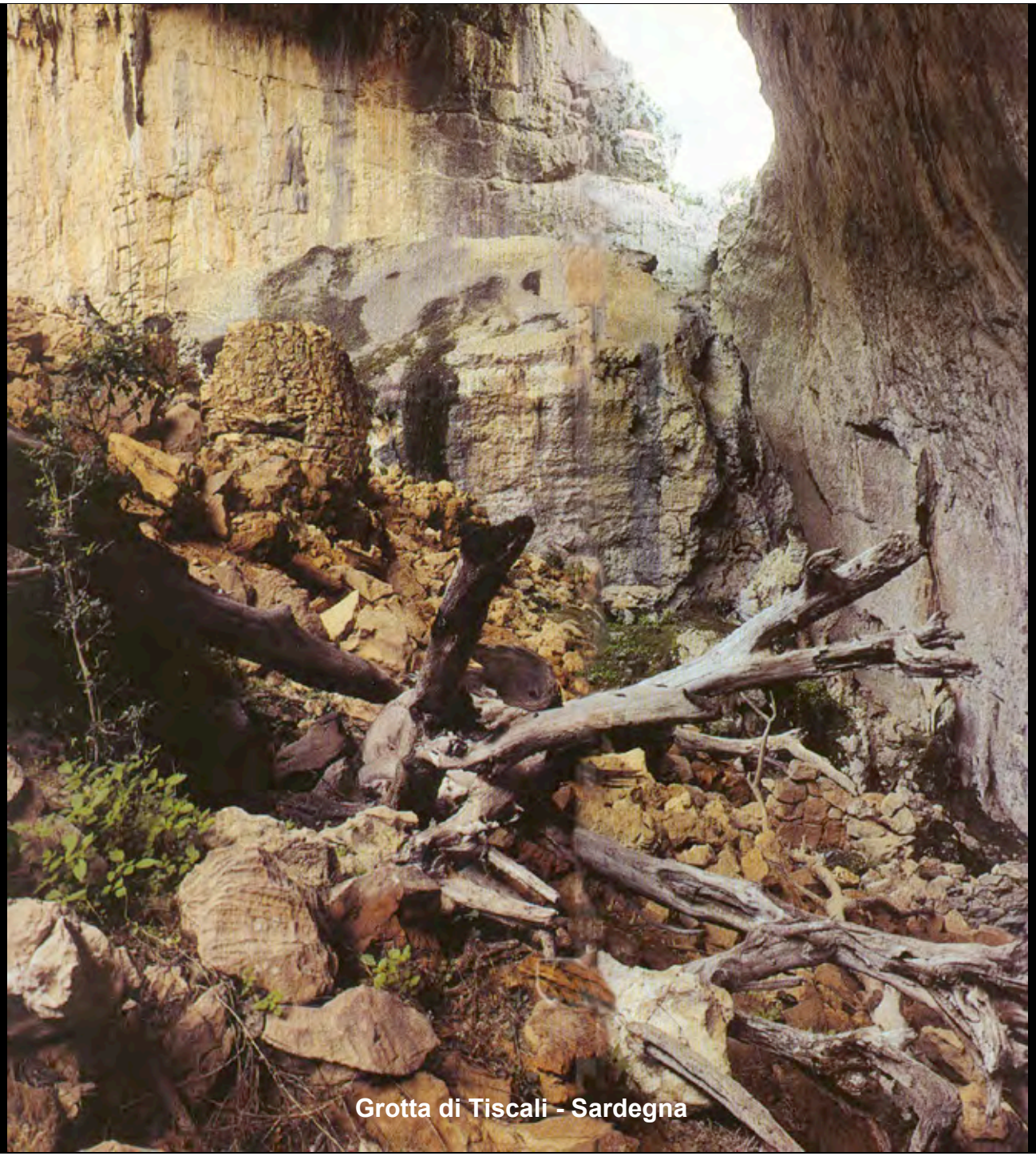
6 - Strutture Intagliate



1 - Cavità Naturali

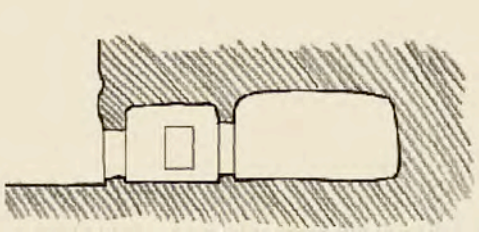


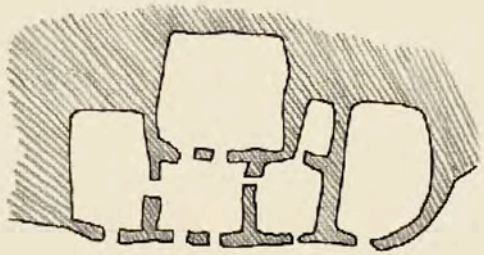
Gravina - Puglia



Grotta di Tiscali - Sardegna

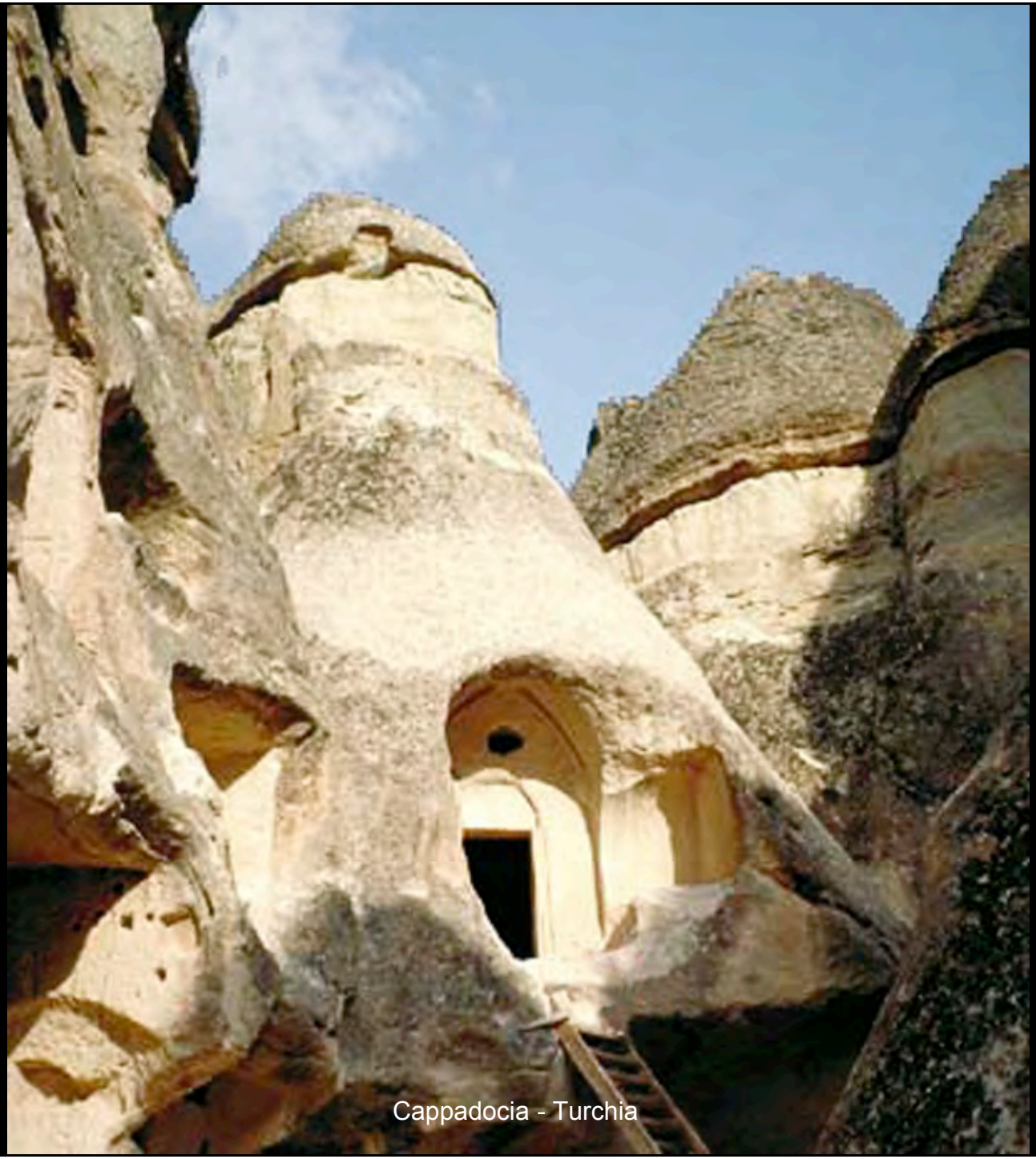
2 - Strutture Rupestri





Cappadocia - Turchia

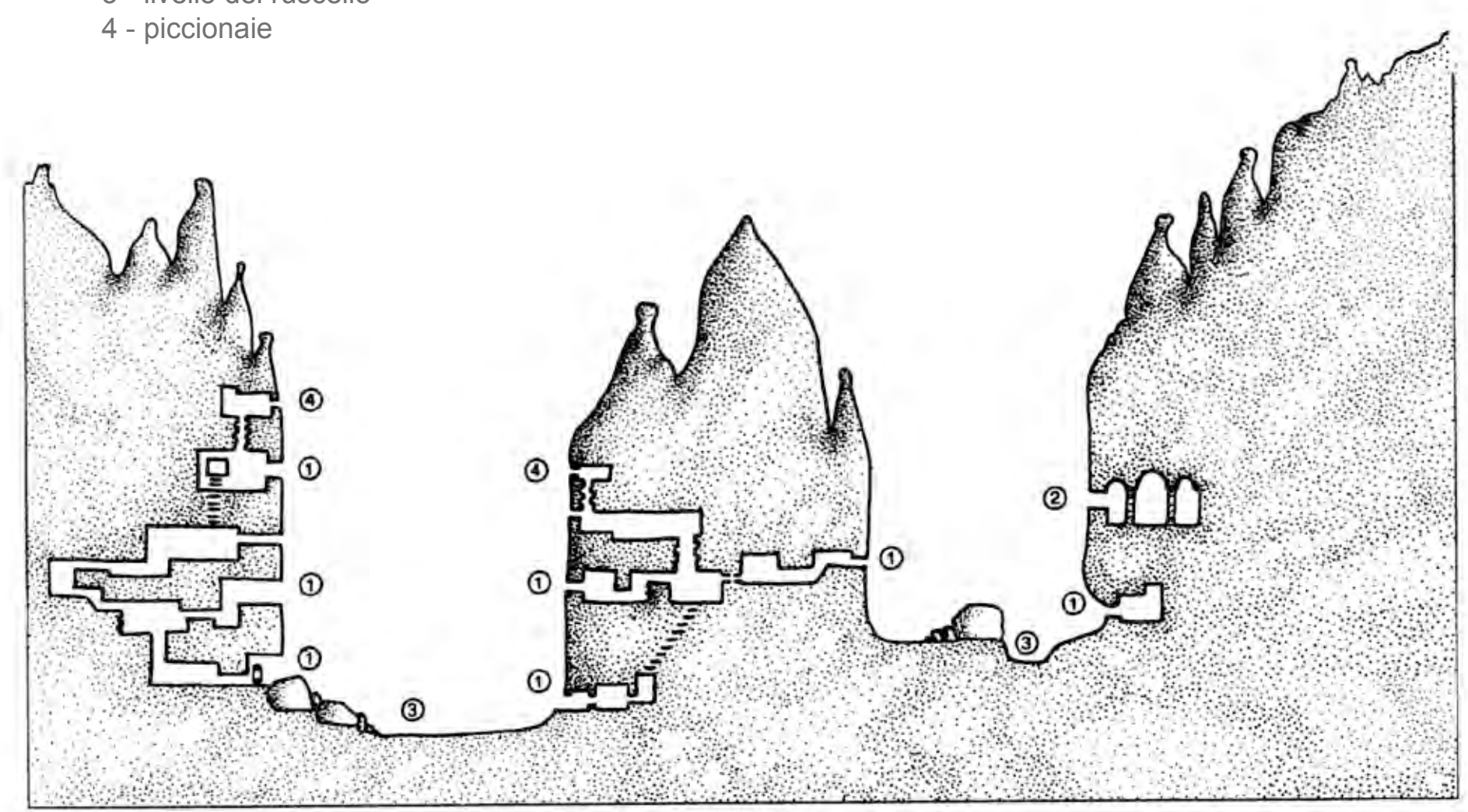

Cappadocia - Turchia

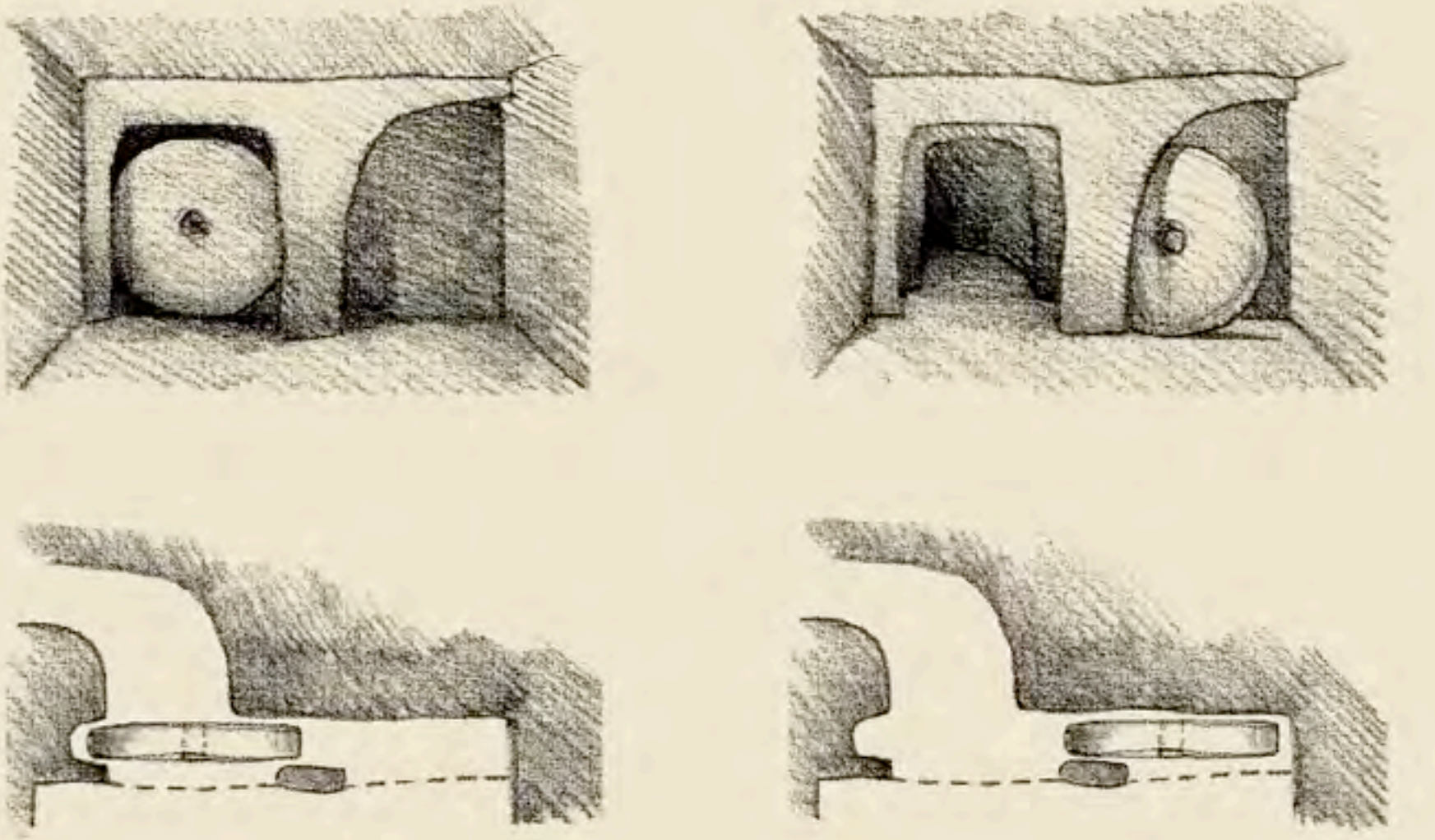


Cappadocia - Turchia

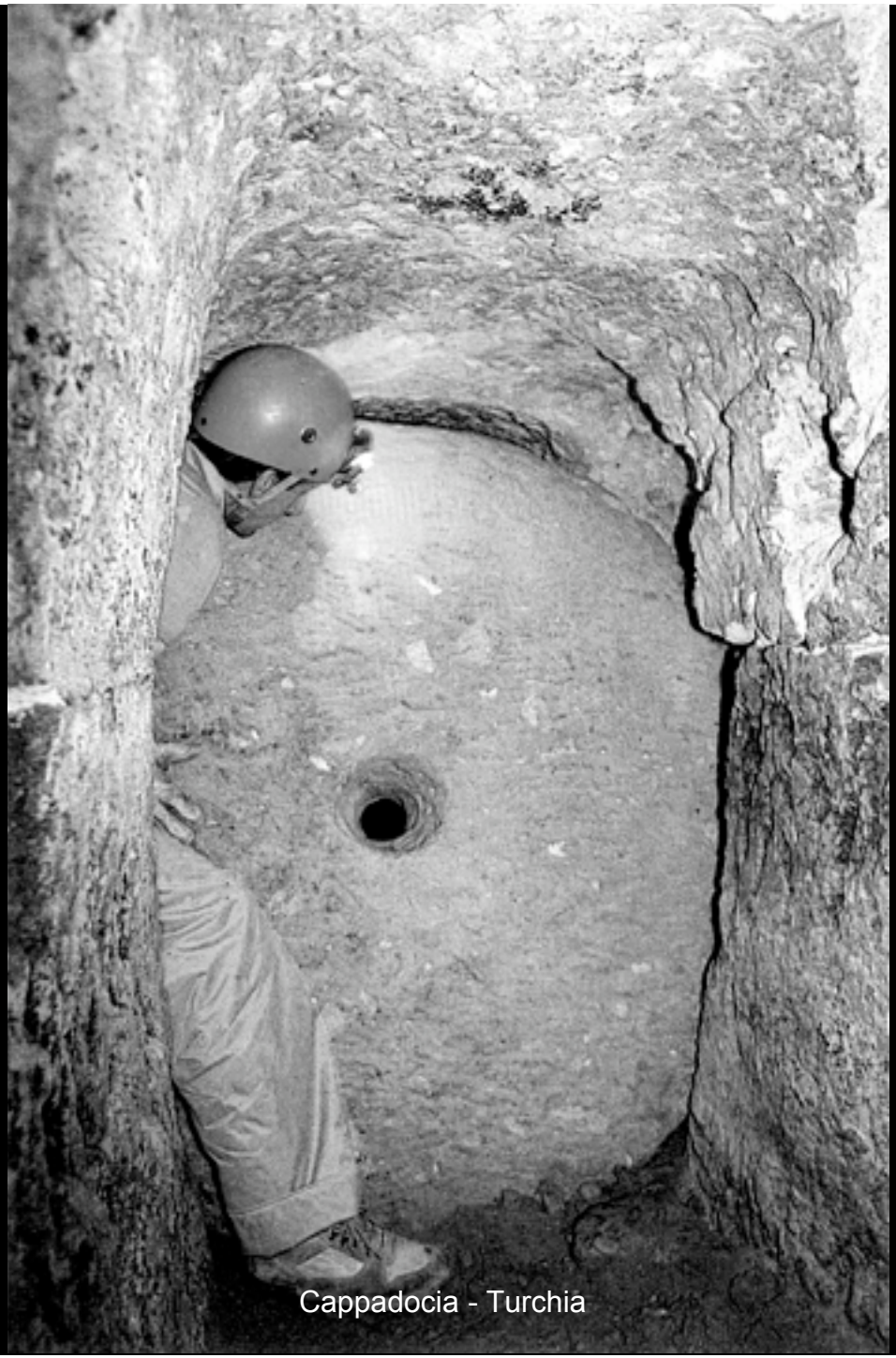
Cappadocia: villaggio a parete

1 - abitazione rupestre
2 - chiesa rupestre
3 - livello del ruscello
4 - piccionaie

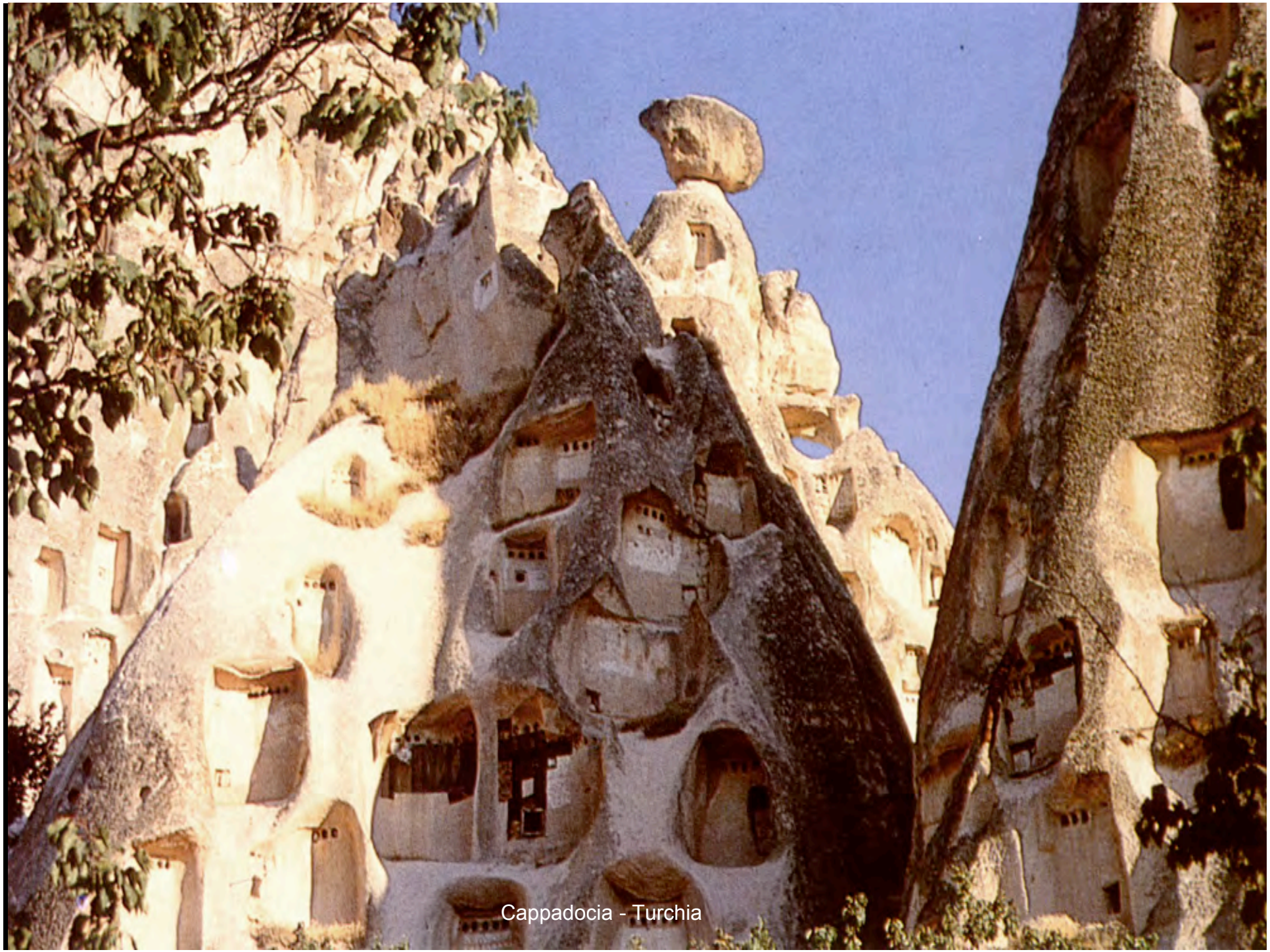




Cappadocia - Turchia

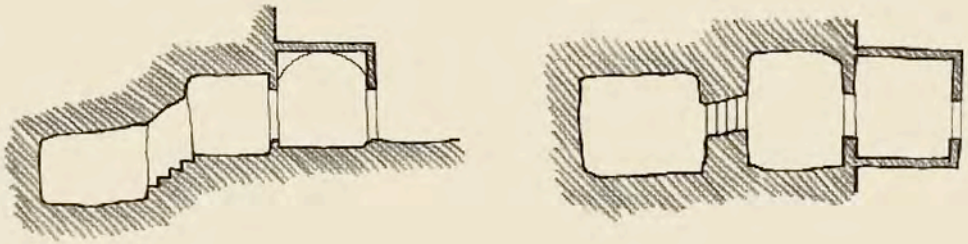


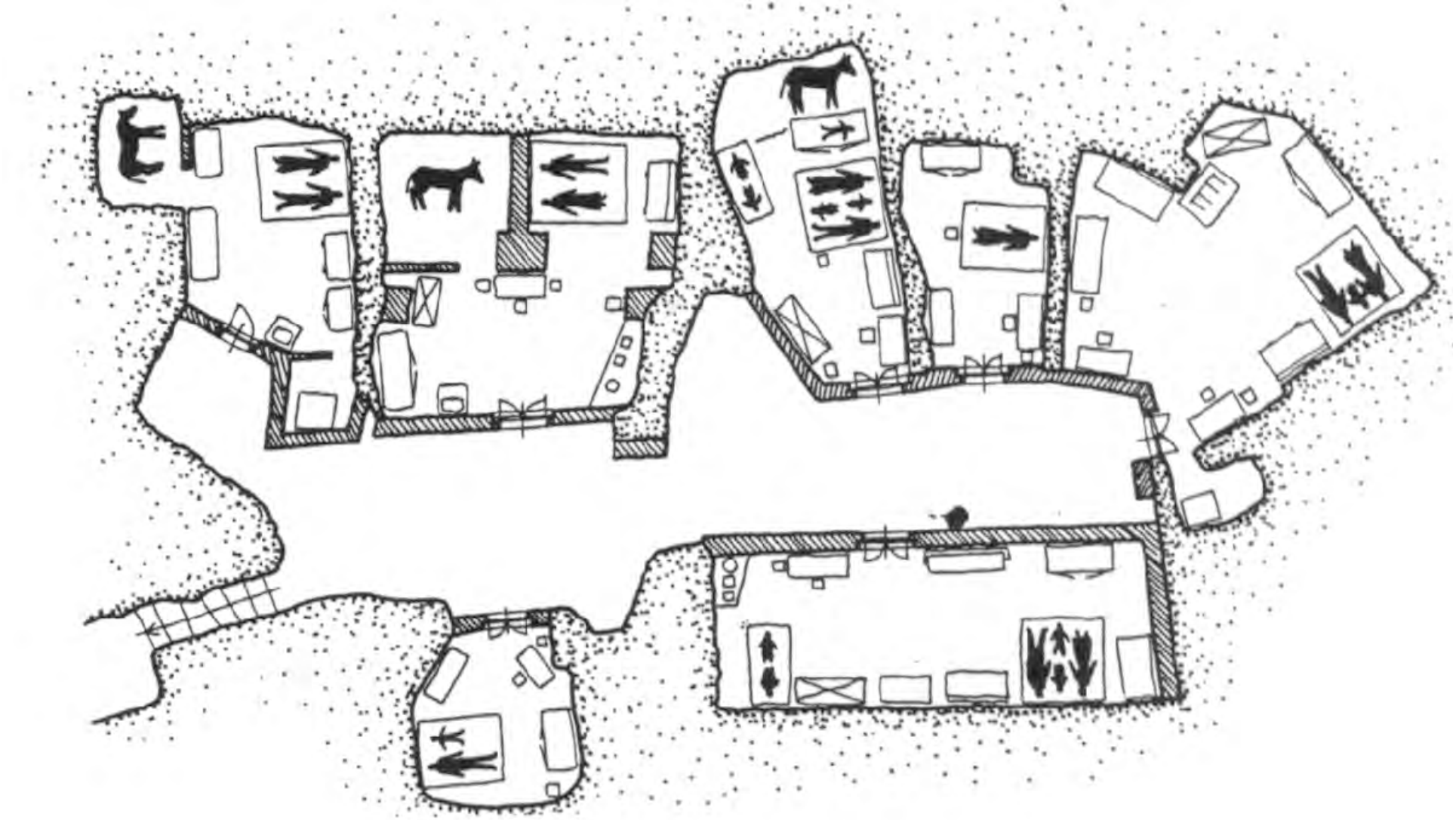
Cappadocia - Turchia

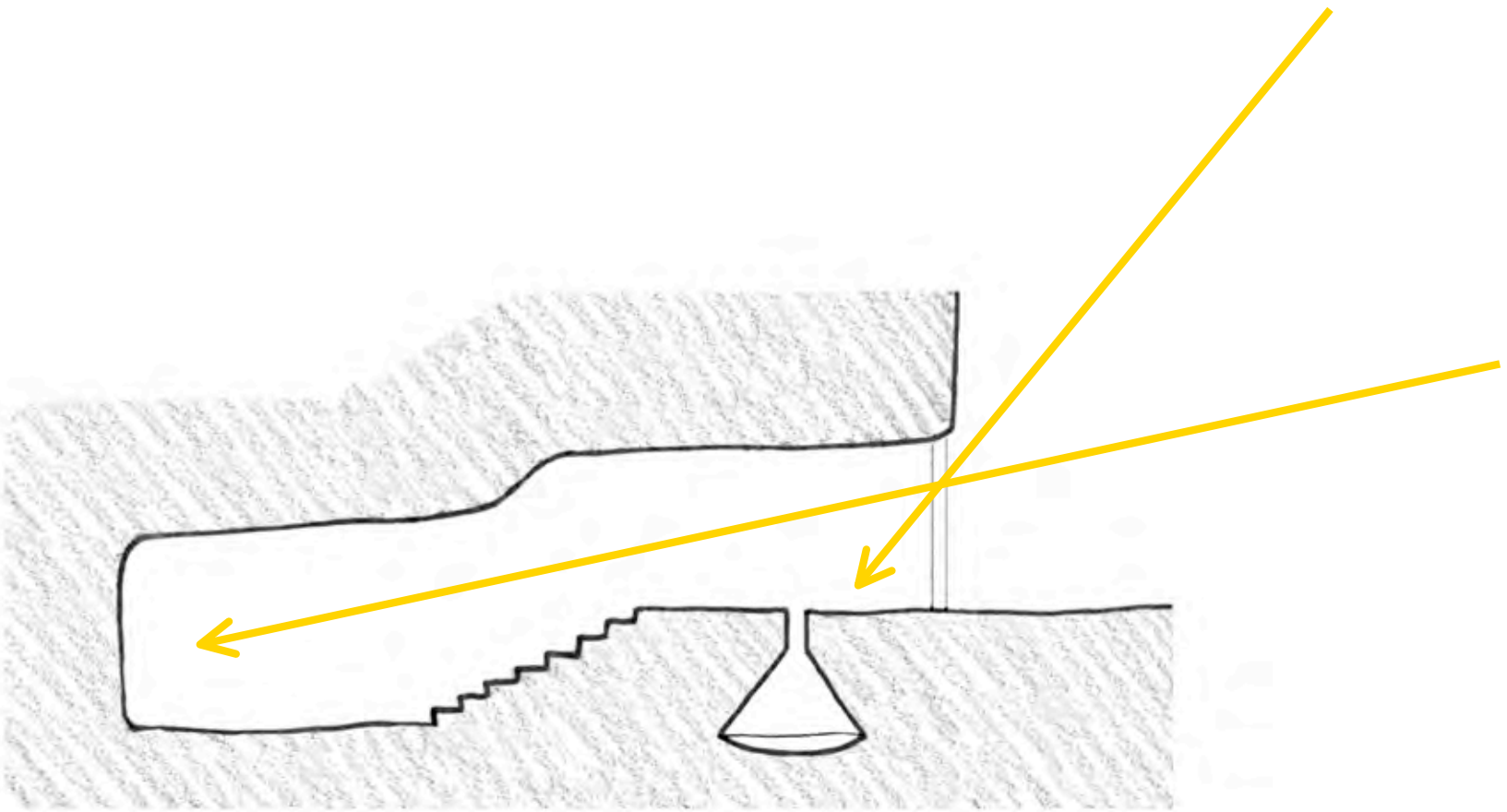


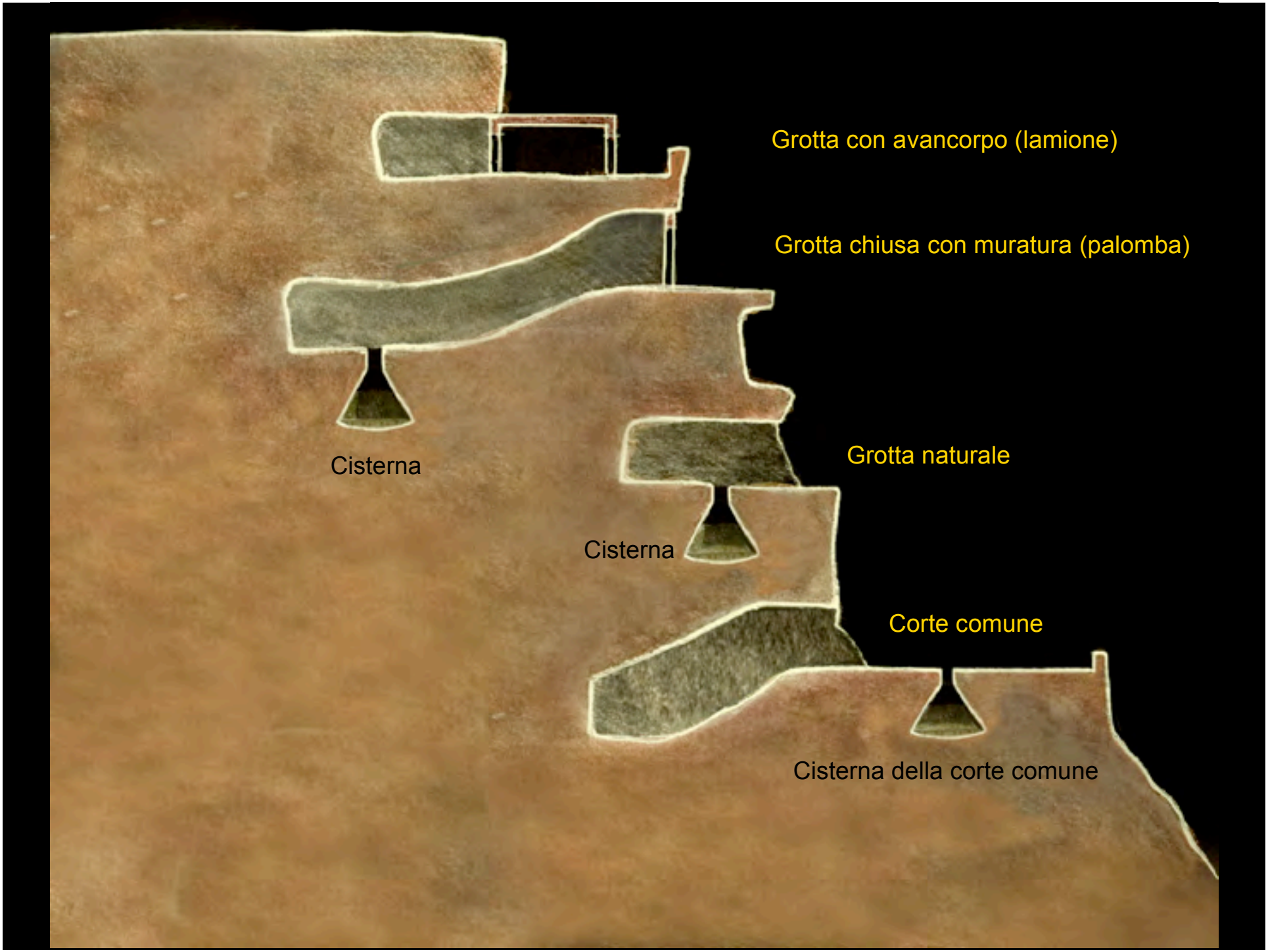
Cappadocia - Turchia

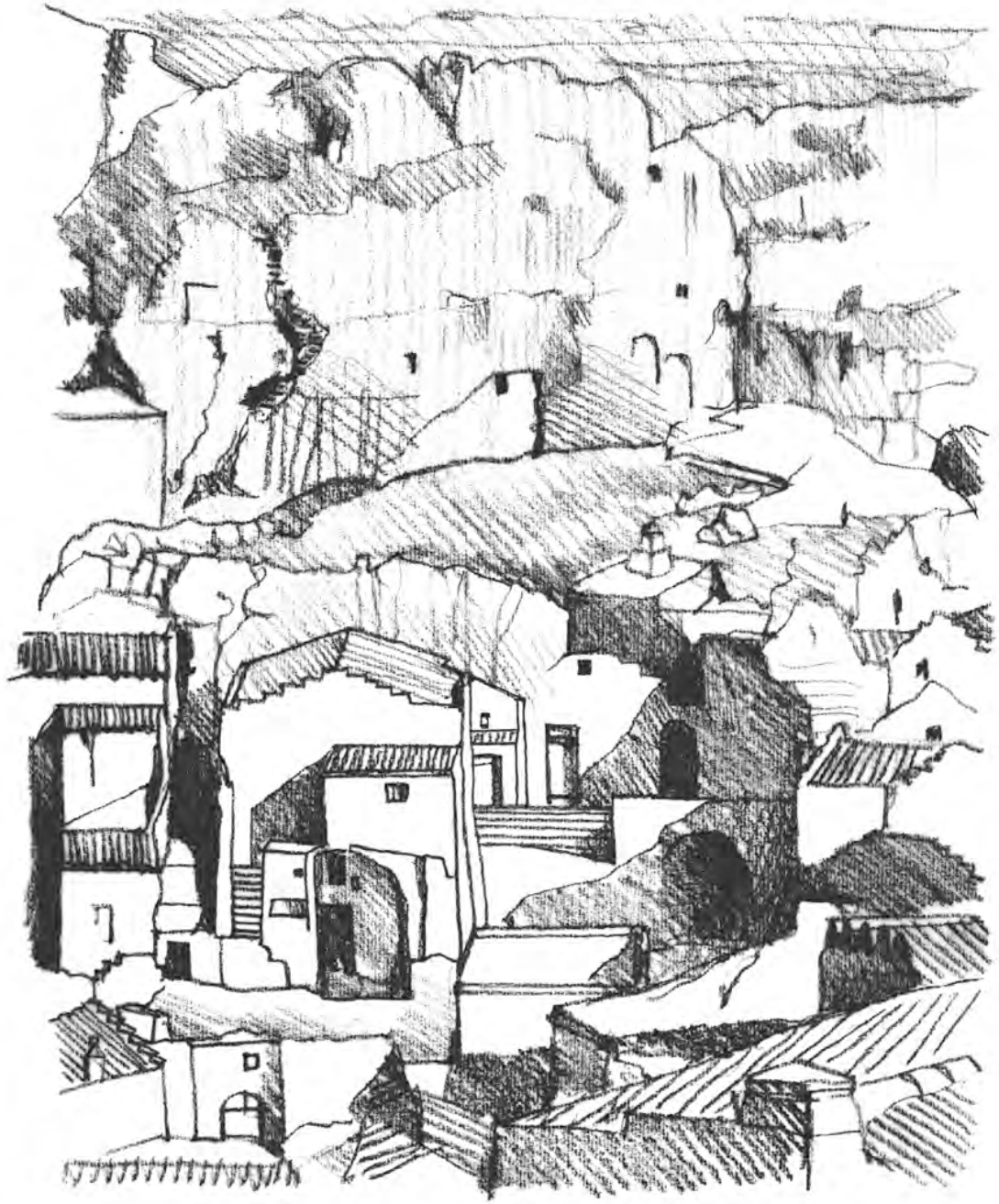
4 - Strutture Miste





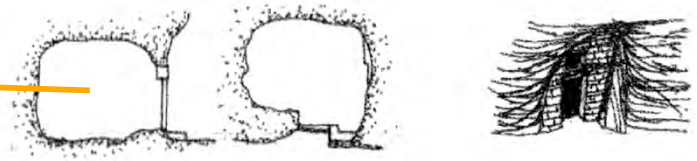



Grotta con avancorpo (lamione)
Grotta chiusa con muratura (palomba)
Cisterna
Grotta naturale
Cisterna
Corte comune
Cisterna della corte comune

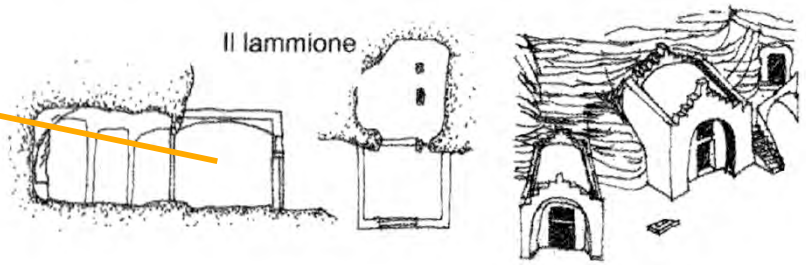


La grotta naturale

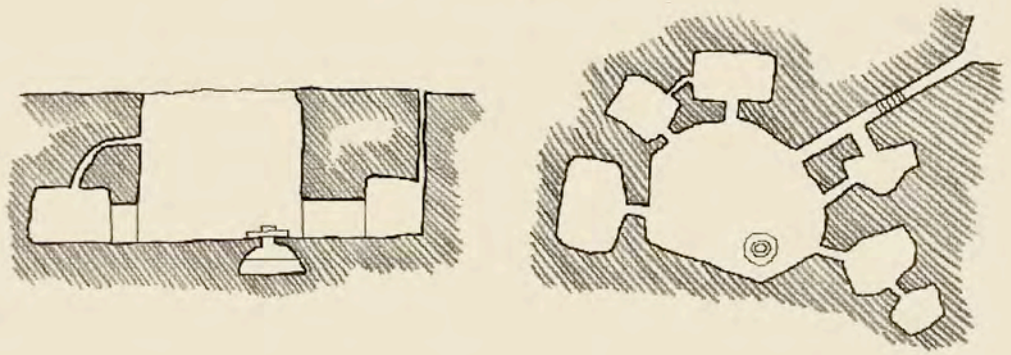
La palomba

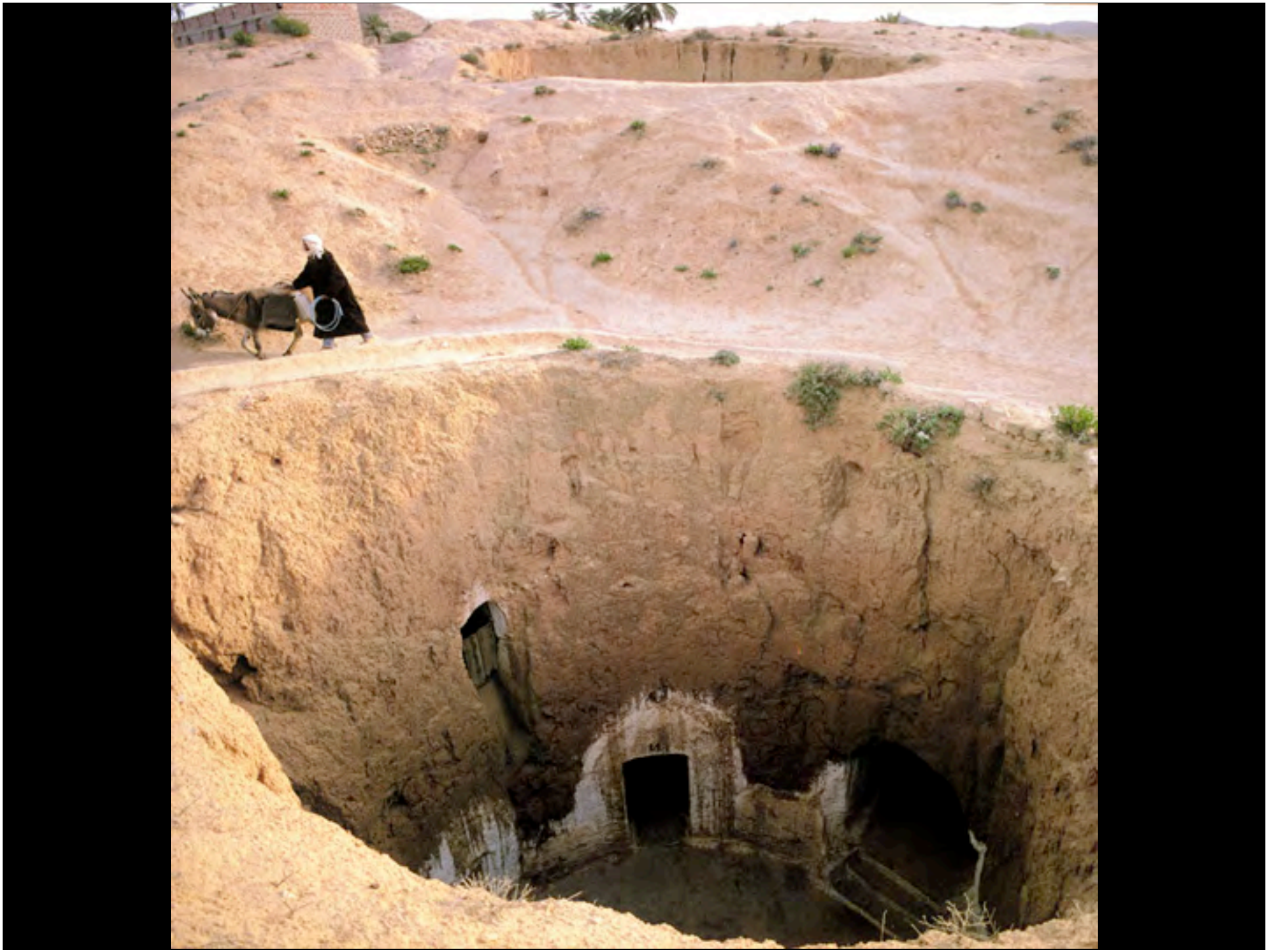


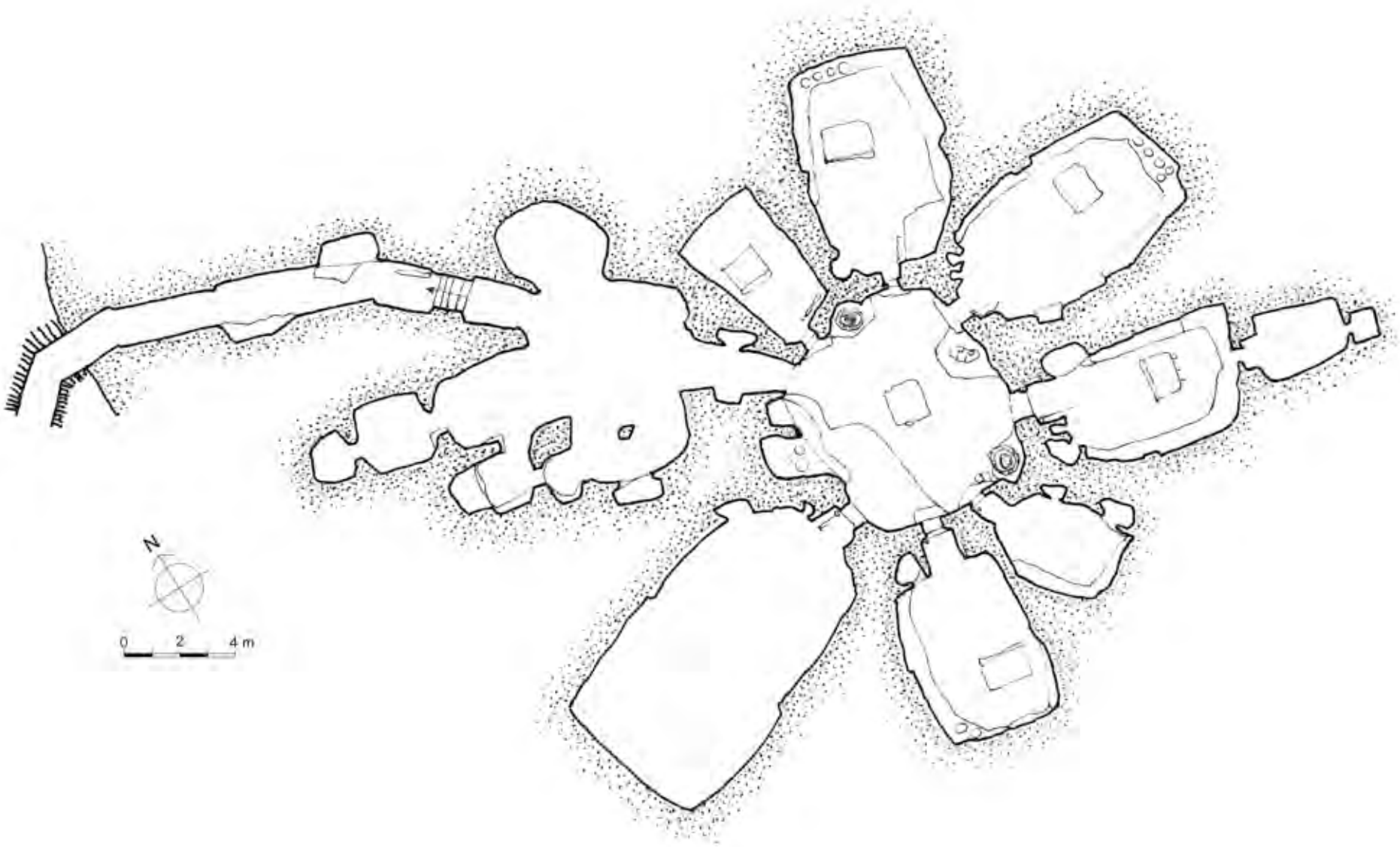
Il lammione



3 - Strutture Ipogee



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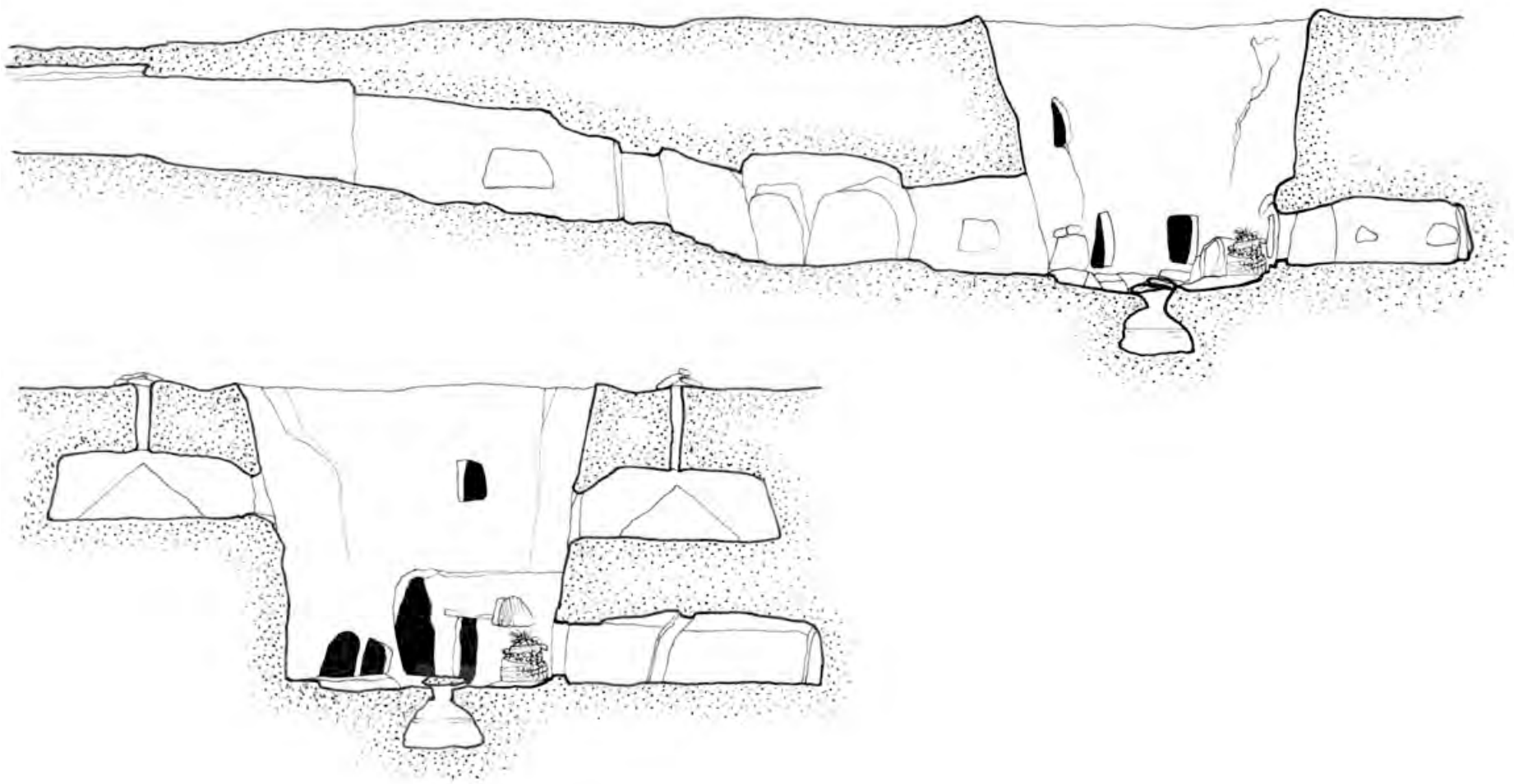
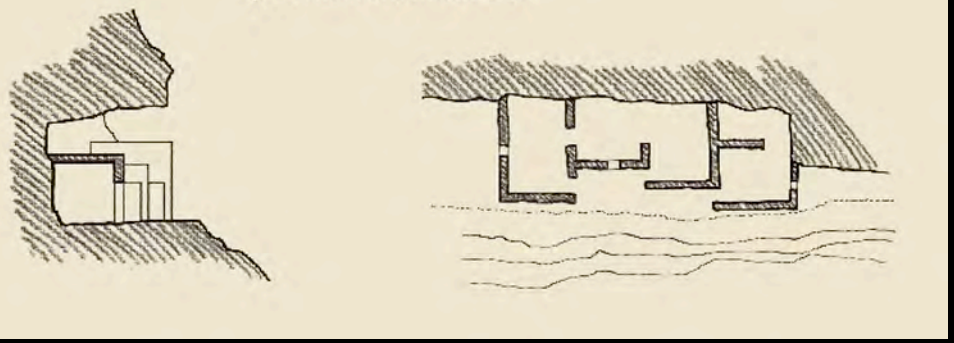
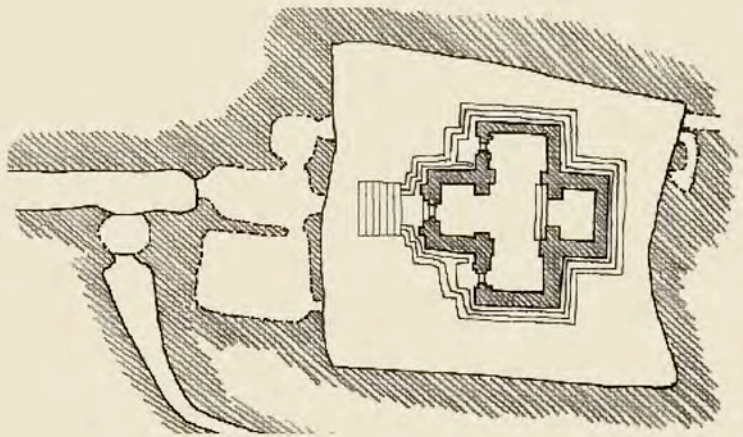


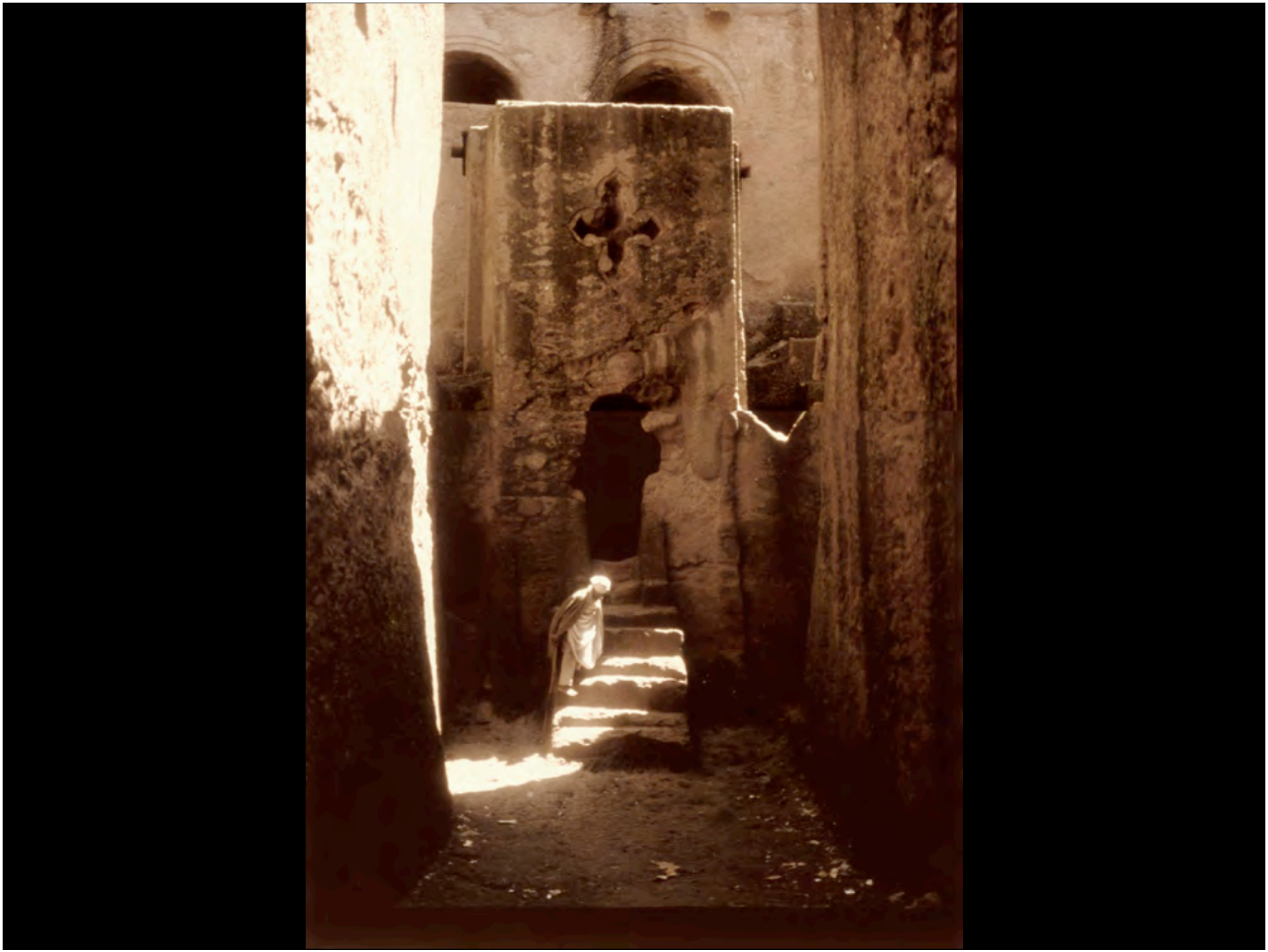
Gaharian - Libia

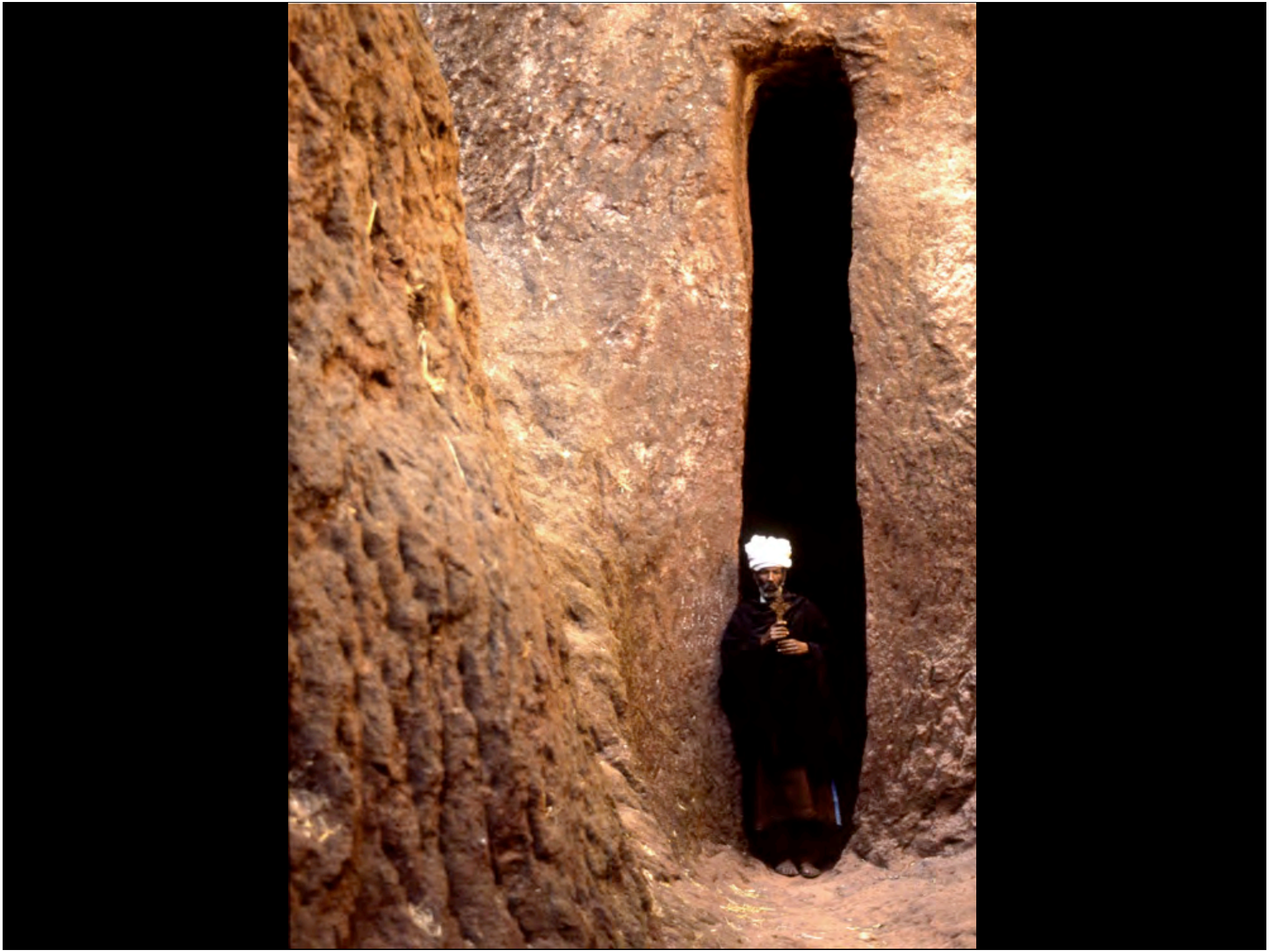
5 - Strutture Addossate

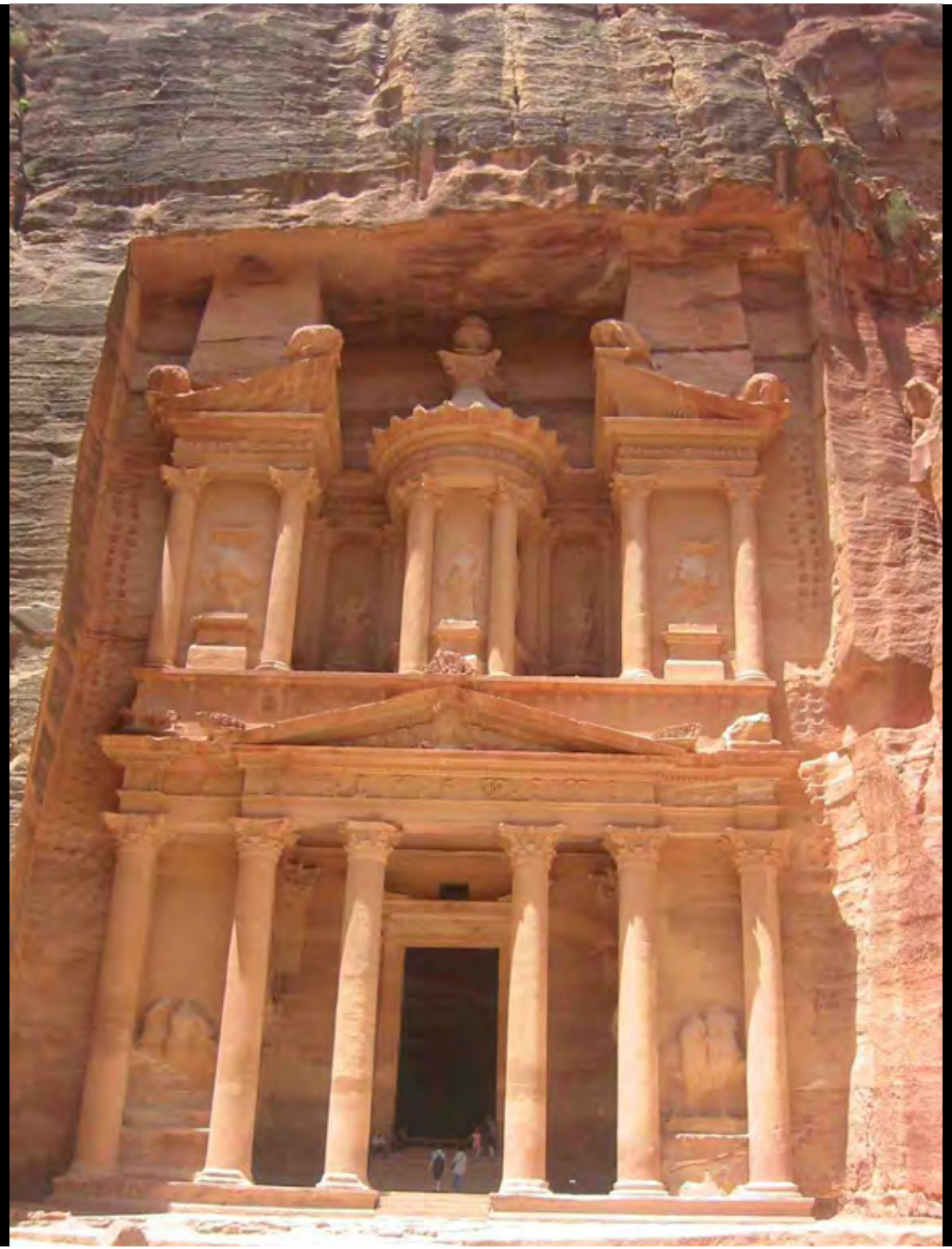


6 - Strutture Intagliate









Roufi - Aurès - Algeria

Dal pozzo al patio

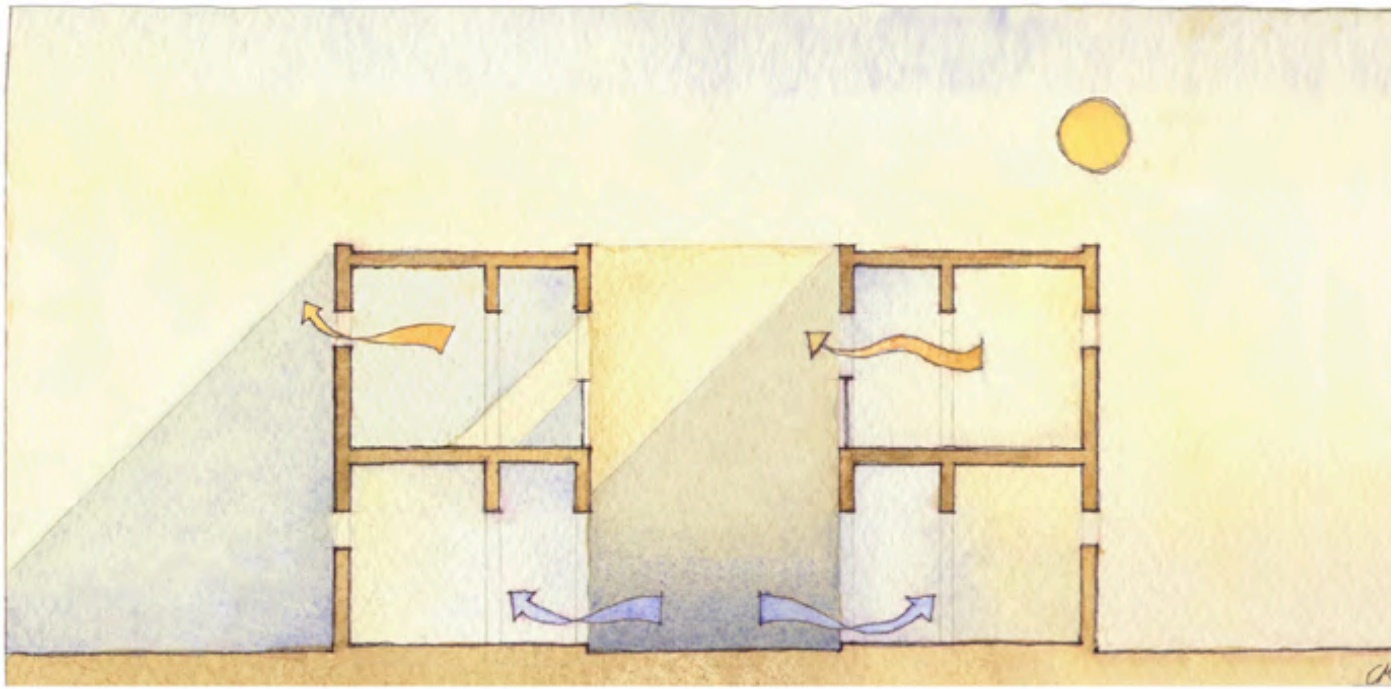
L’insediamento a pozzo scavato verticalmente
da cui si diramano gallerie ipogee
a destinazione abitativa
rappresenta l’archetipo della casa a patio

Kairouan - Marocco

Tunisia - Bulla Regia

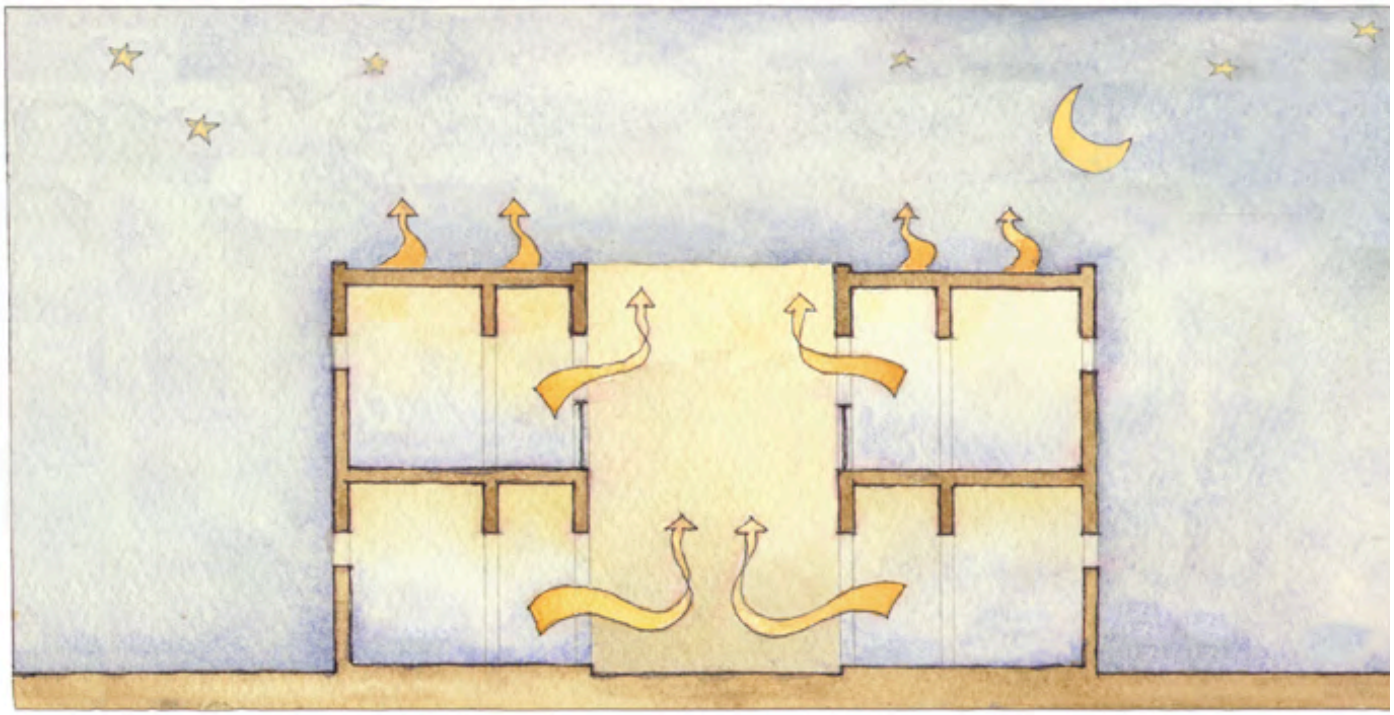
Giorno

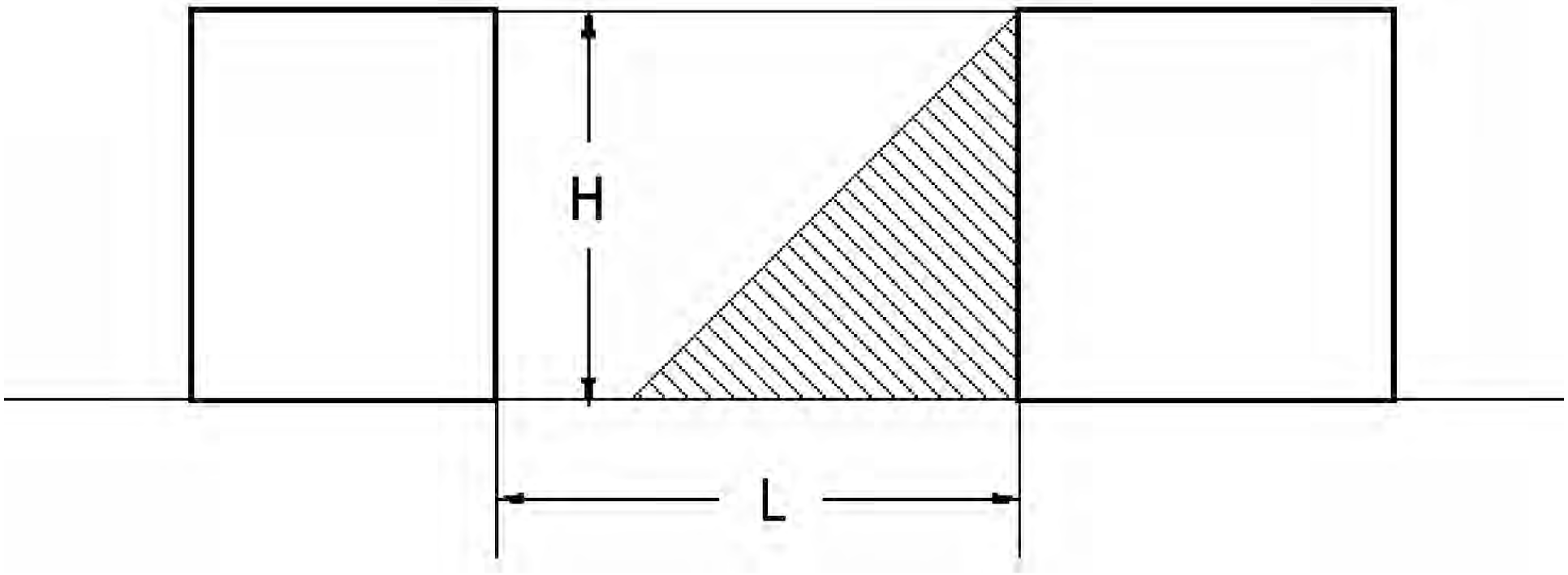
L’aria fresca
si stratifica in basso
e penetra nelle stanze
di piano terra.
Ai piani superiori
la differenza di temperatura
tra zone in ombra
e zone soleggiate crea
una ventilazione naturale
negli ambienti interni
che così si raffrescano
per convezione



Notte

Il calore accumulato
durante il giorno
dalle masse murarie
e dagli ambienti interni
viene espulso
per convezione
(effetto camino del patio)
e per irraggiamento
(dalla copertura)



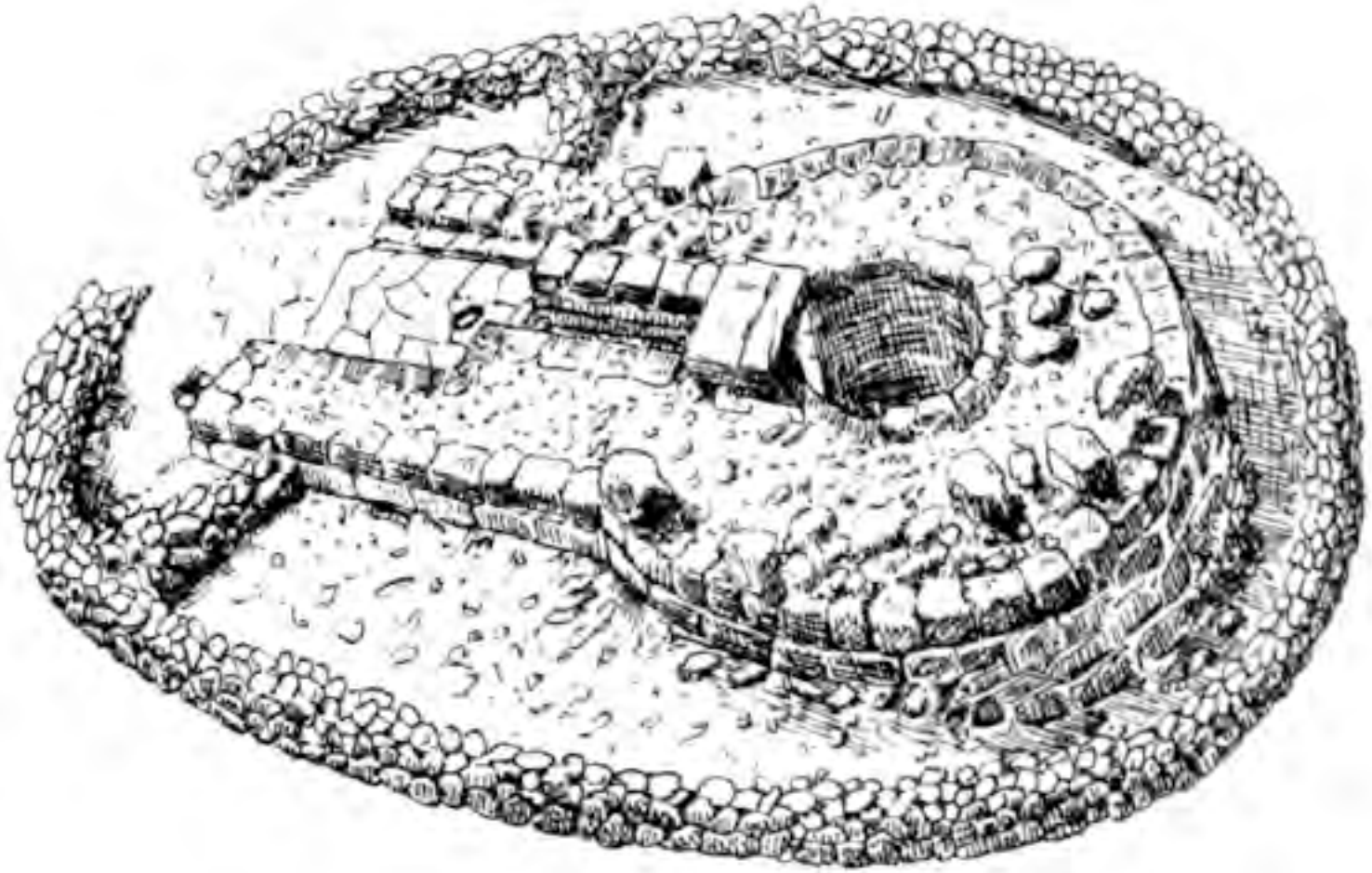


Corte = L > H

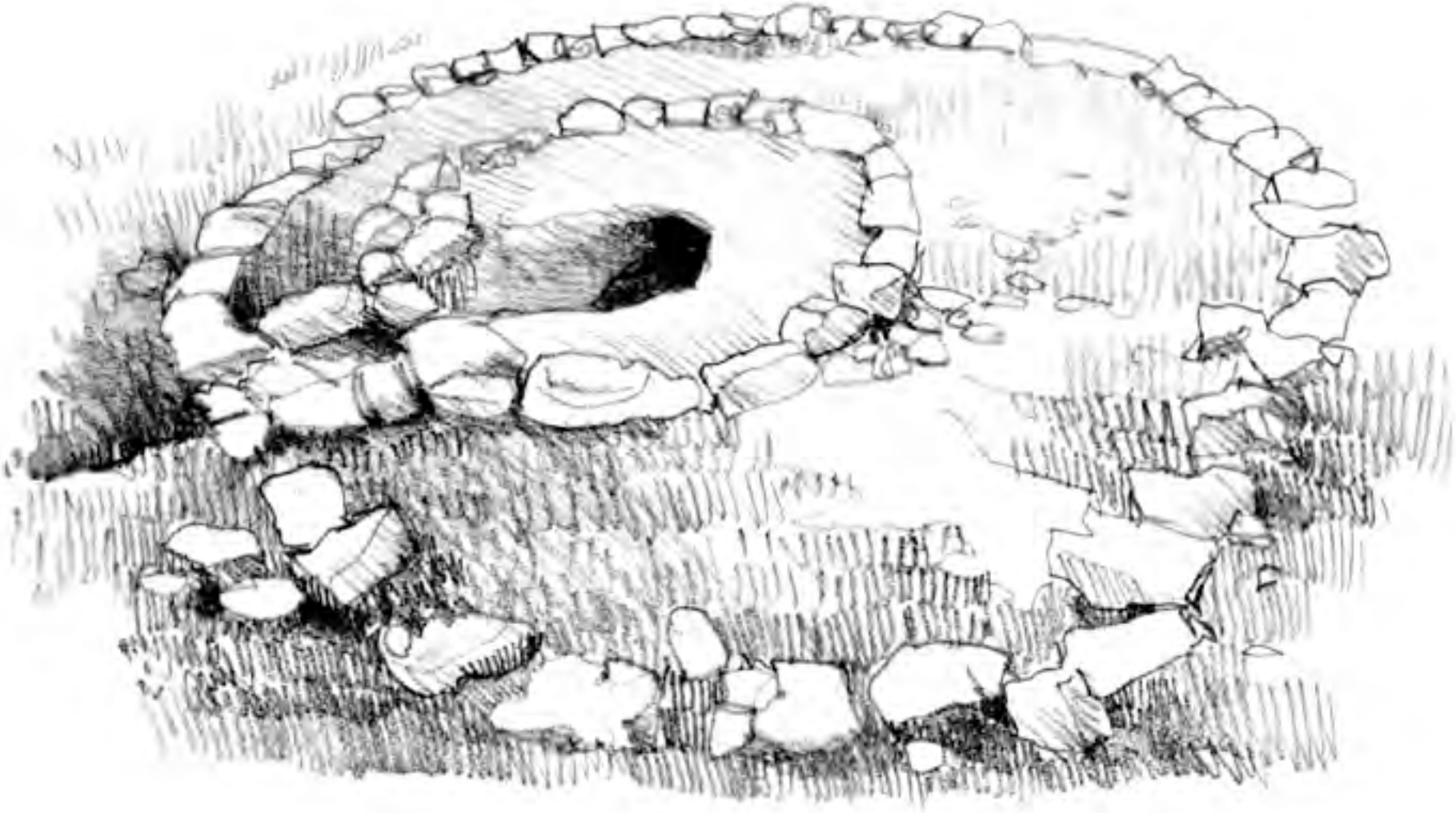
Patio = L < H

Mauritania - Chinguetti

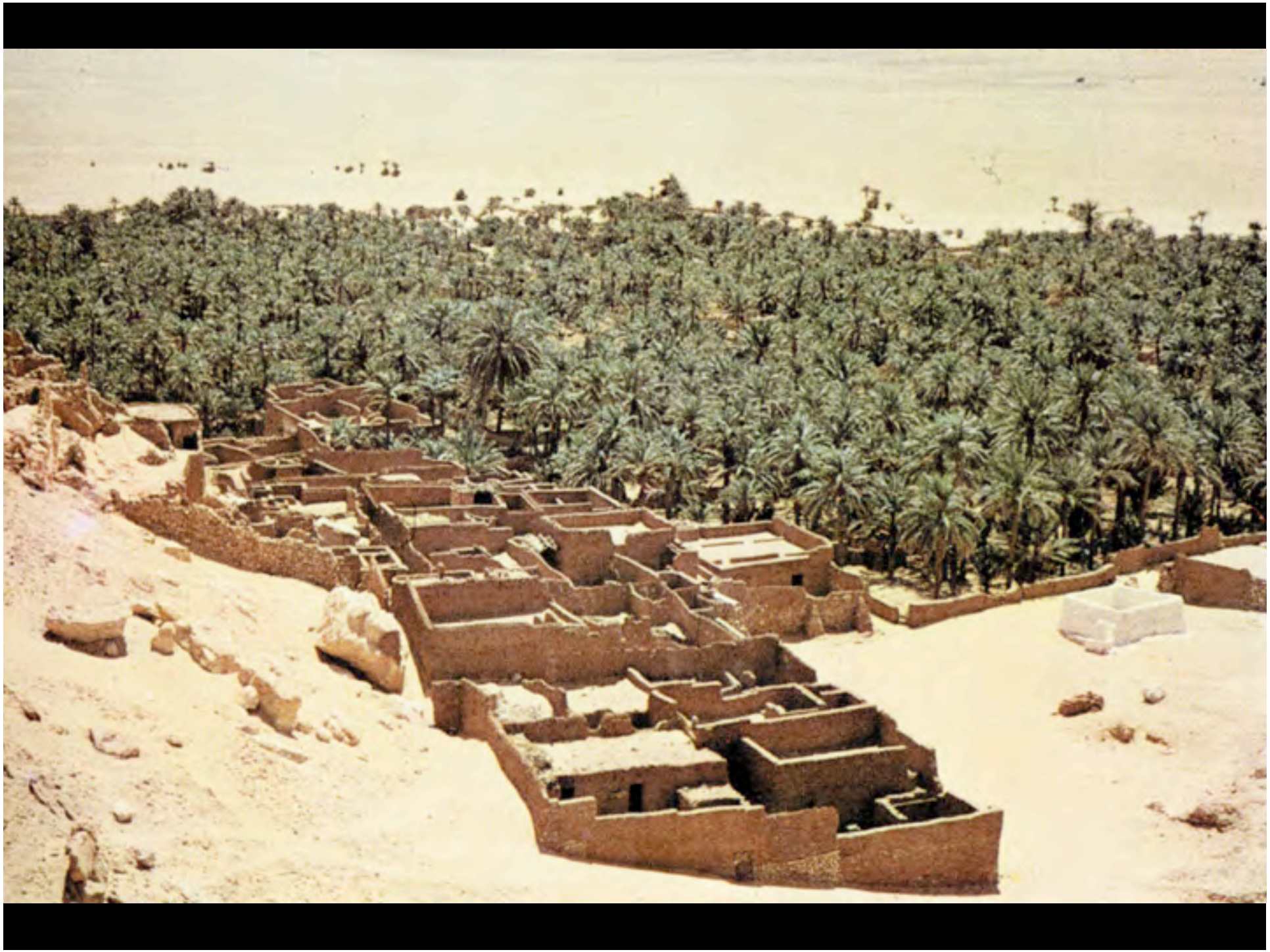
Monumento solare nel Sahara



Pozzo sacro di Santa Cristina in Sardegna

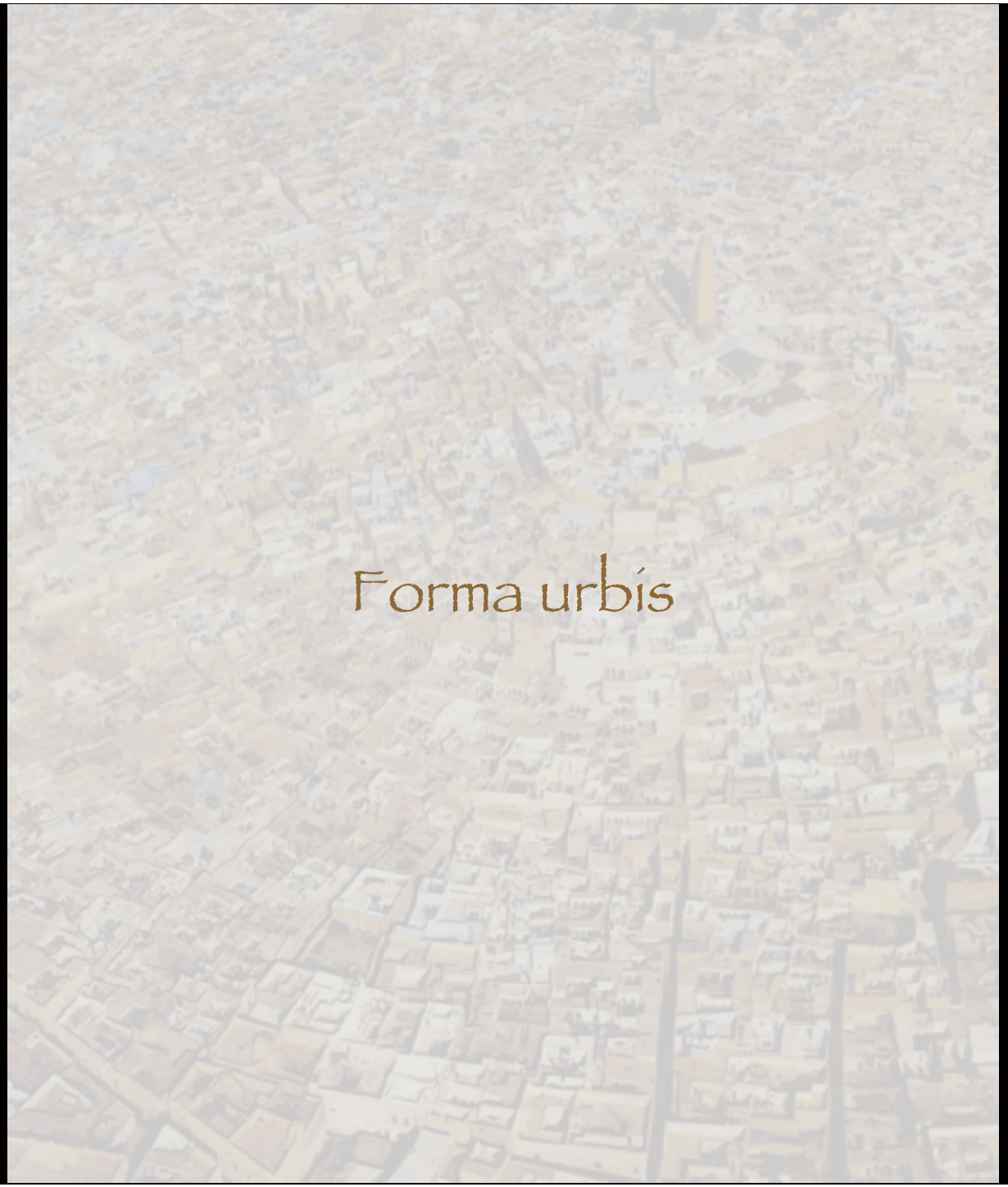


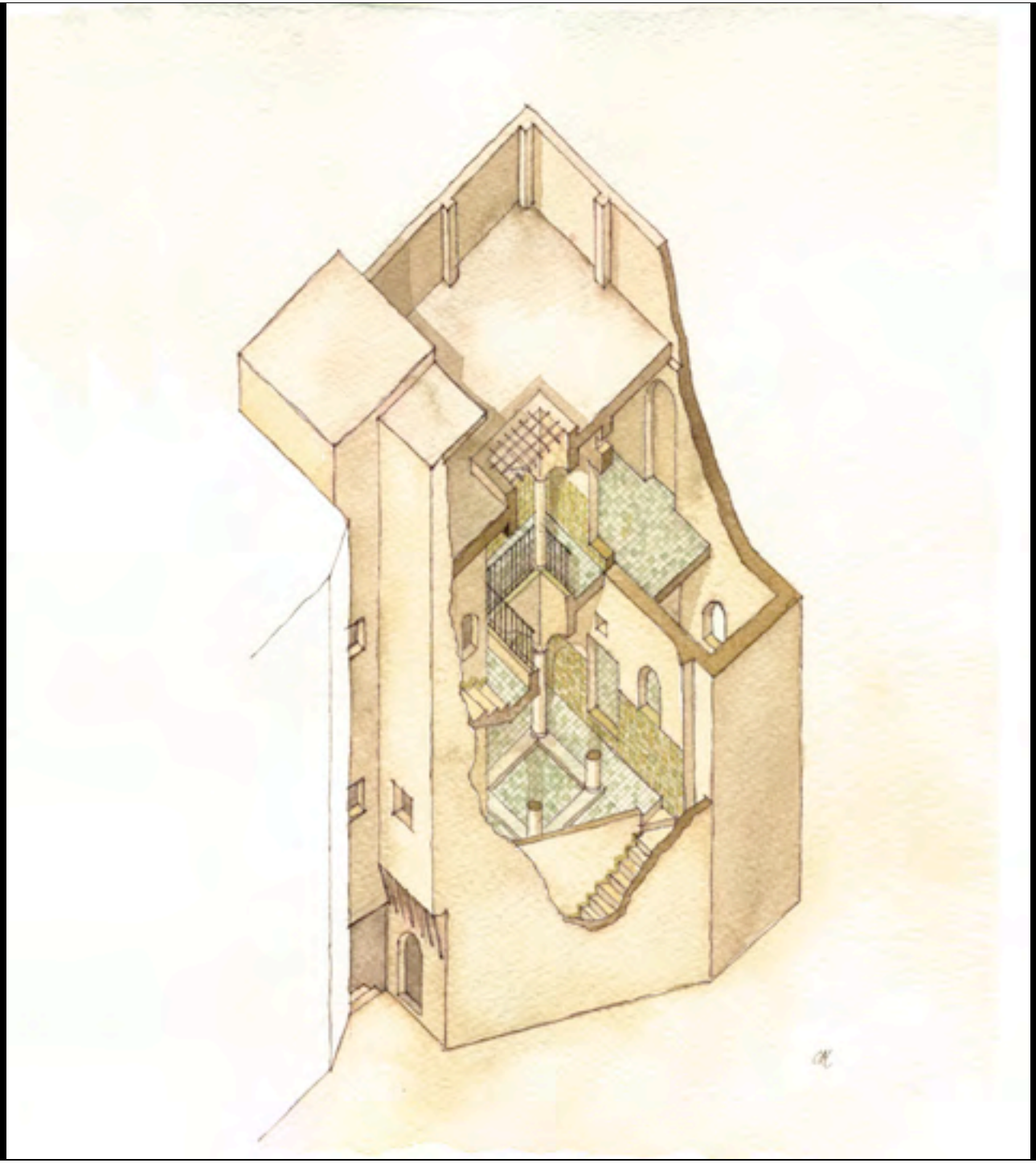
Mausoleo neolitico presso Matera



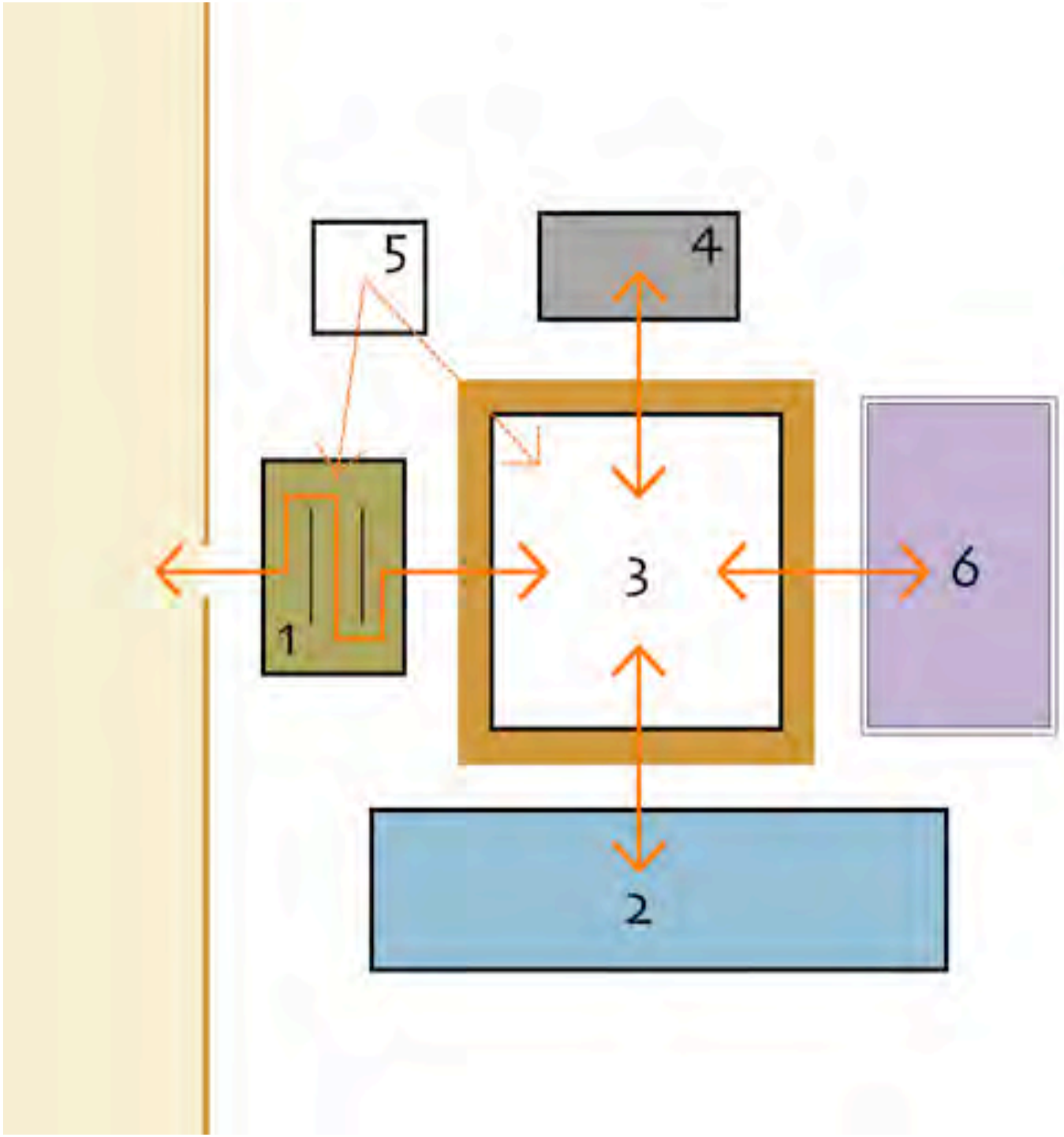

Pantelleria

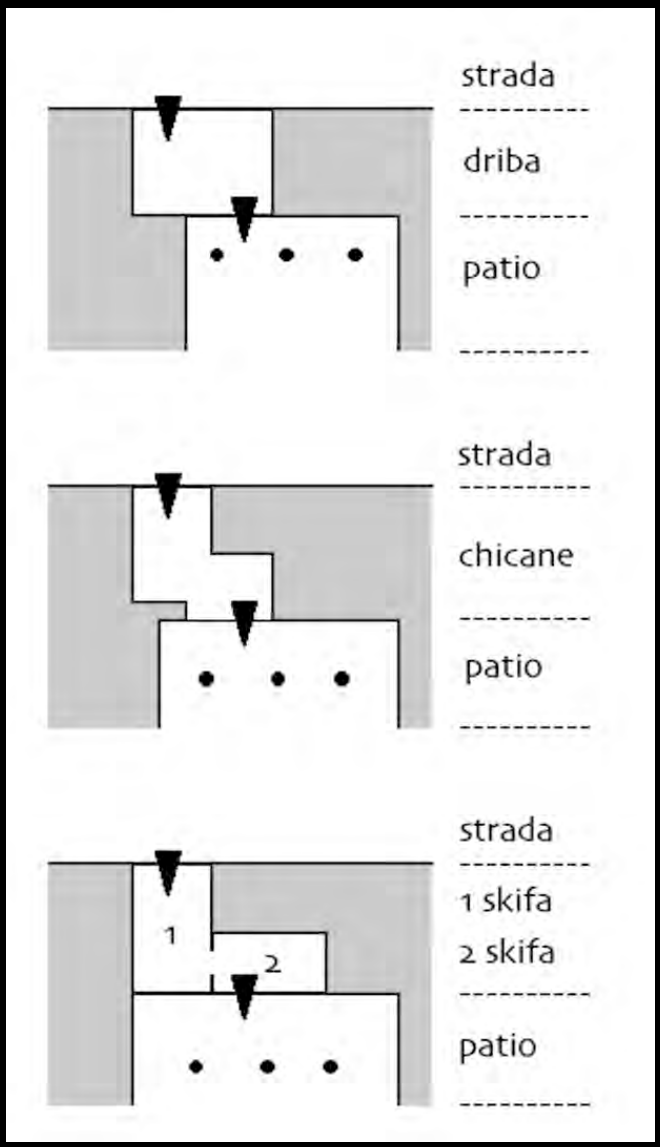
Ksar Al-Ajji - Libia

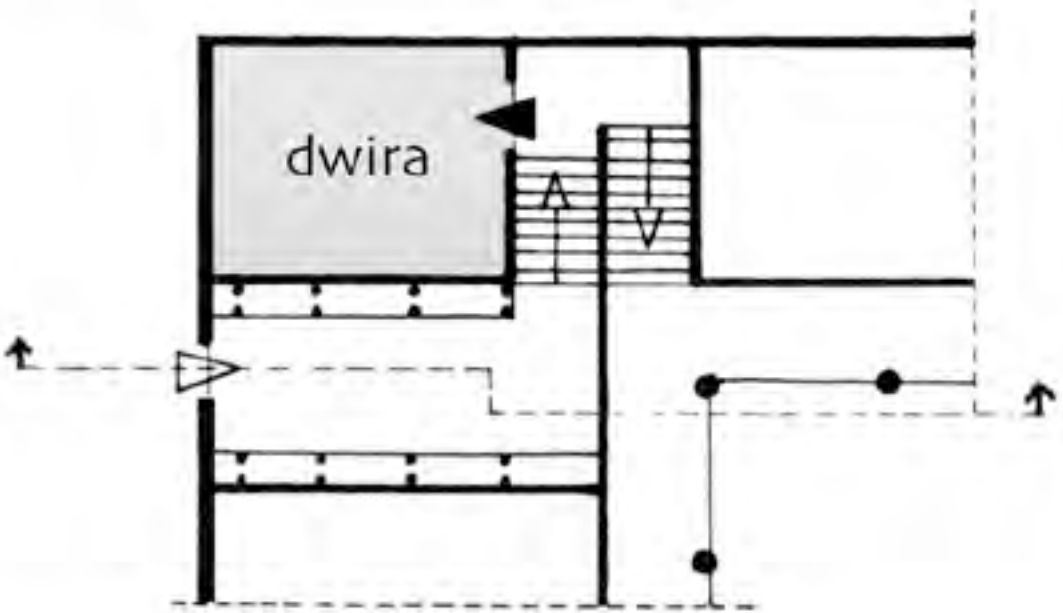

Forma urbis

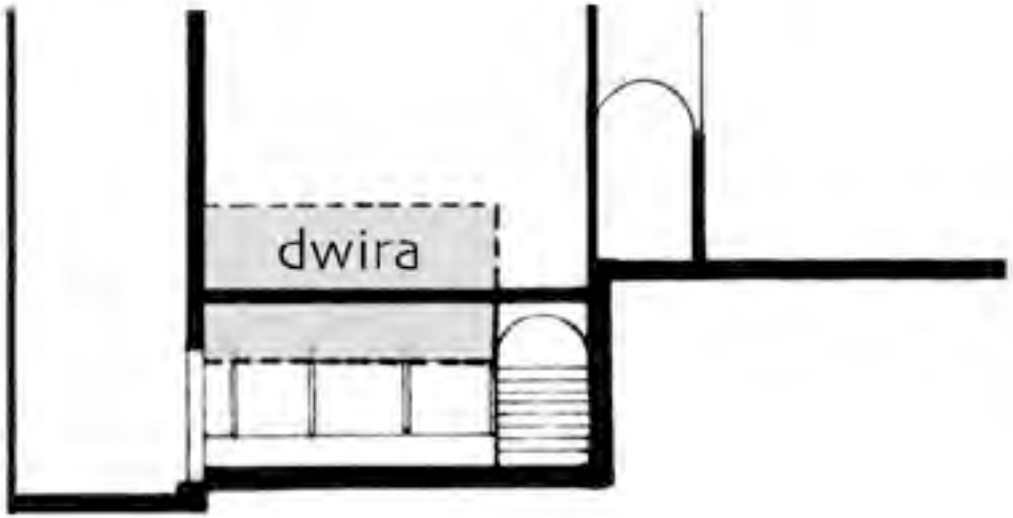


Le parti del sistema spaziale della residenza si organizzano attorno al patio (3), centro effettivo di una serie di relazioni complesse che possono estinguersi nelle stanze (2) o nei locali di servizio (4), o articolarsi nella serie di percorsi che conducono al sotterraneo (5), al sistema dei filtri di entrata (1) o ai piani superiori fino alla terrazze (6).




strada
driba
patio
strada
chicane
patio
strada
1
2
1 skifa
2 skifa
patio


dwira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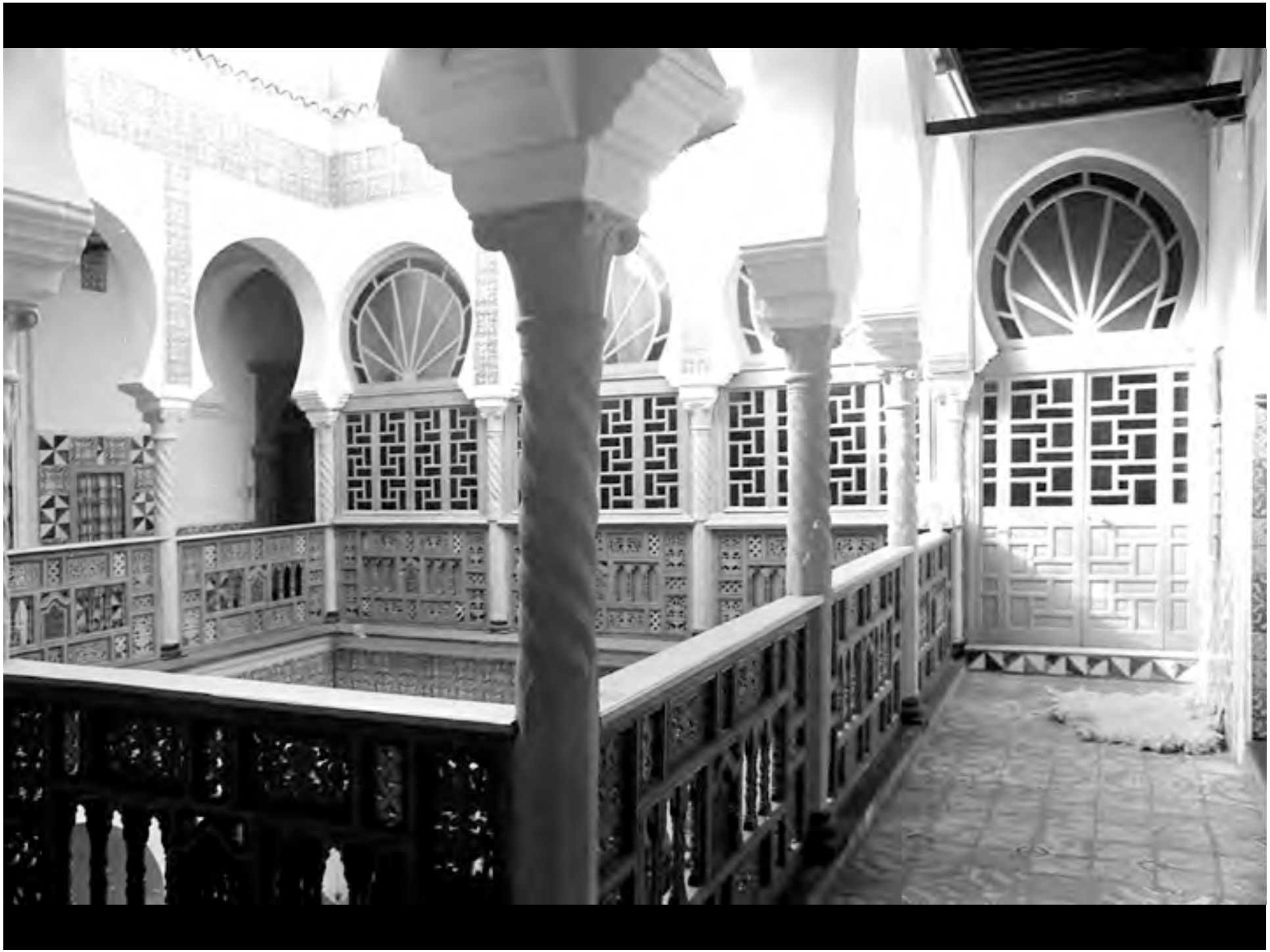
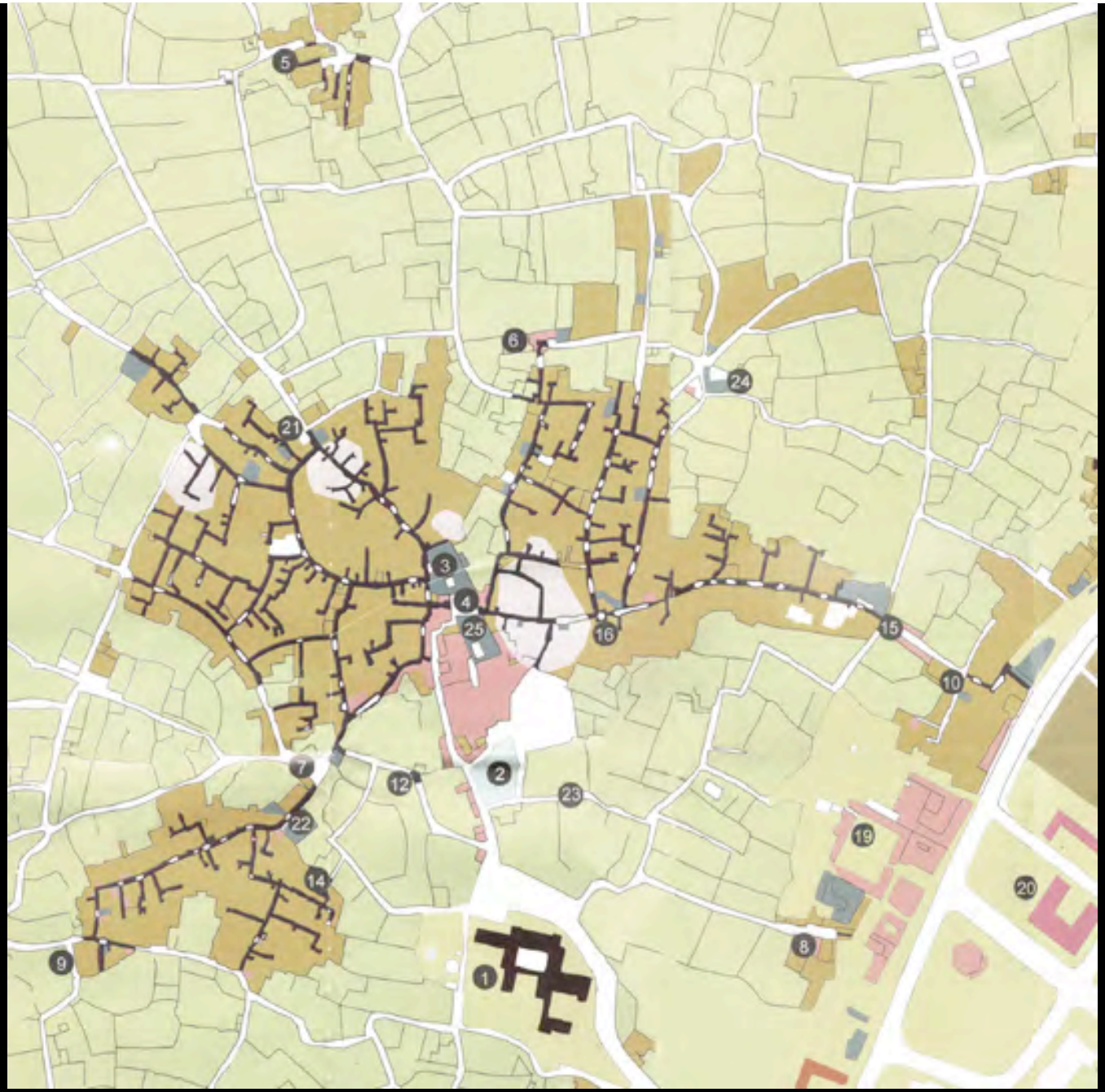
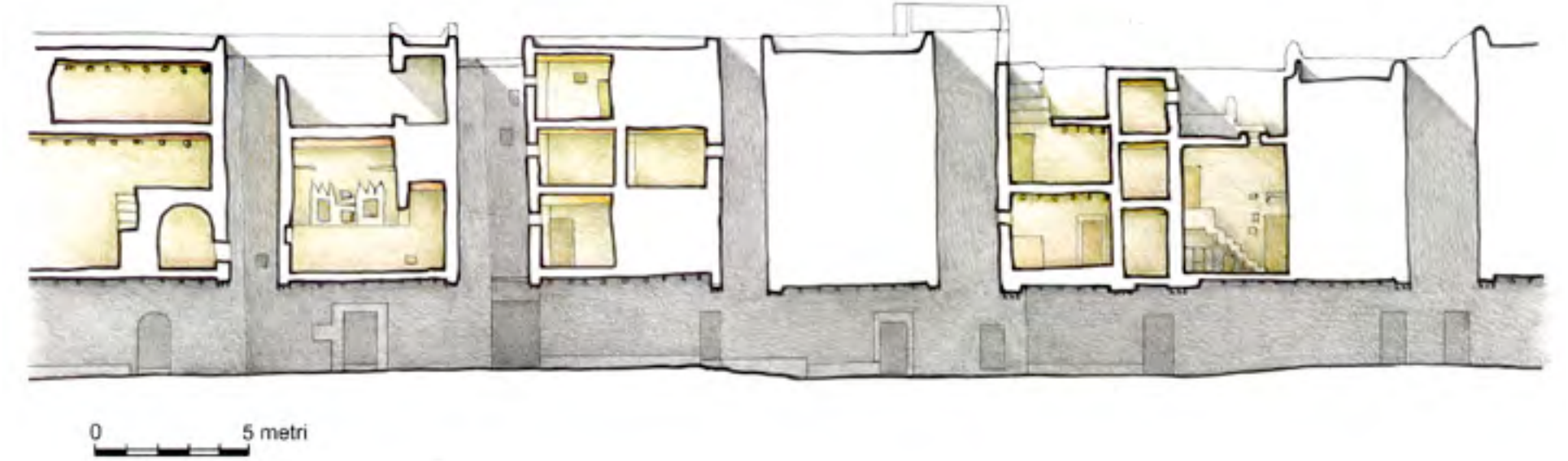


Algeria
Strada di Ghardaia

Algeria - Beni Abbes



Ghadames – Libia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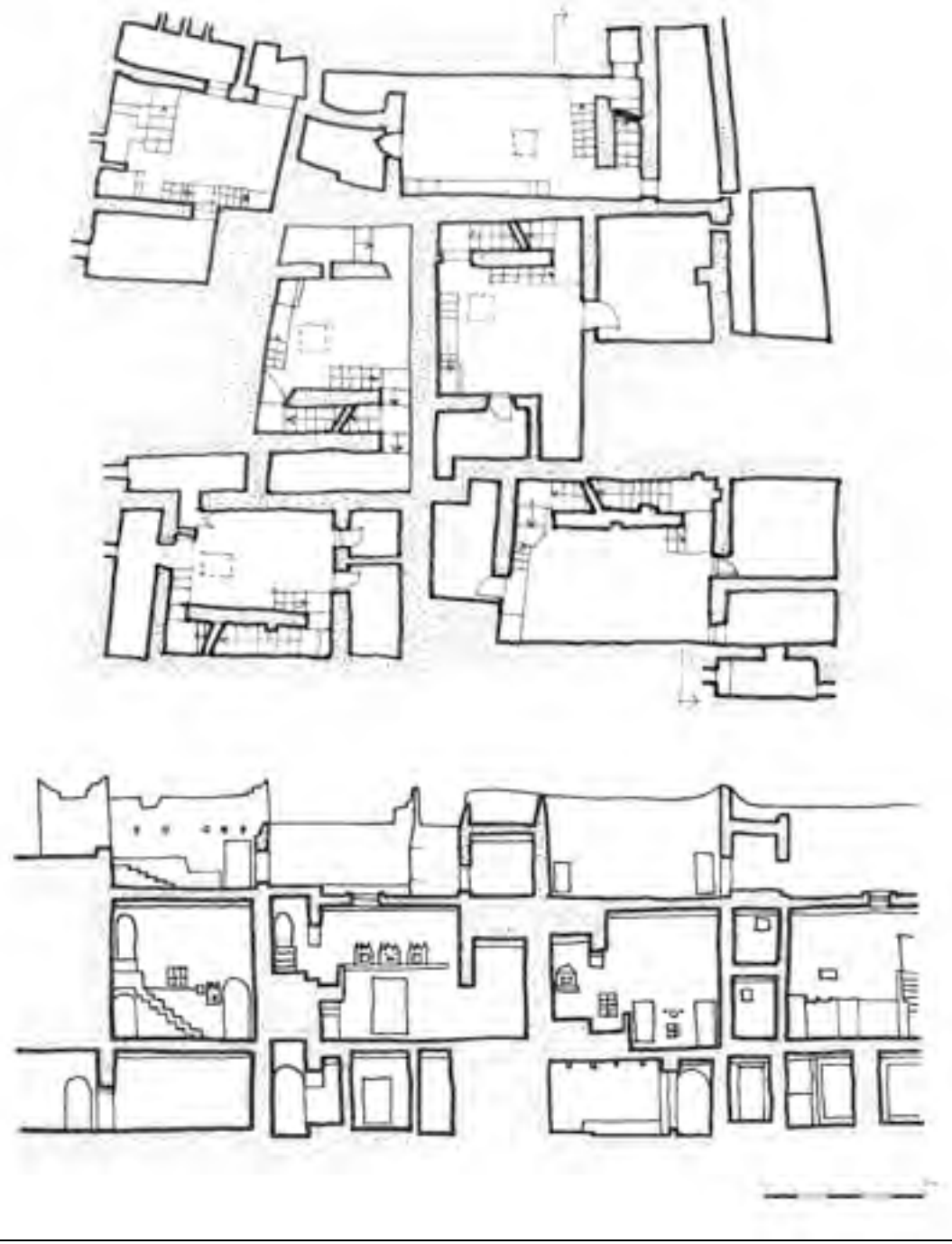



la risorsa acqua

Seguia - pettine in pietra per la ripartizione delle quote d’acqua

“Ciò che abbellisce il deserto”, disse il piccolo principe,

“è che nasconde un pozzo in qualche luogo:..”

Antoine De Saint-Exupéry, “Il piccolo principe”

Ho veduto fiumi scomparire nella sabbia

non vi si gettavano, credo, vi affondavano lentamente


svanivano come speranze

Andrè
Gide

Nella foto:

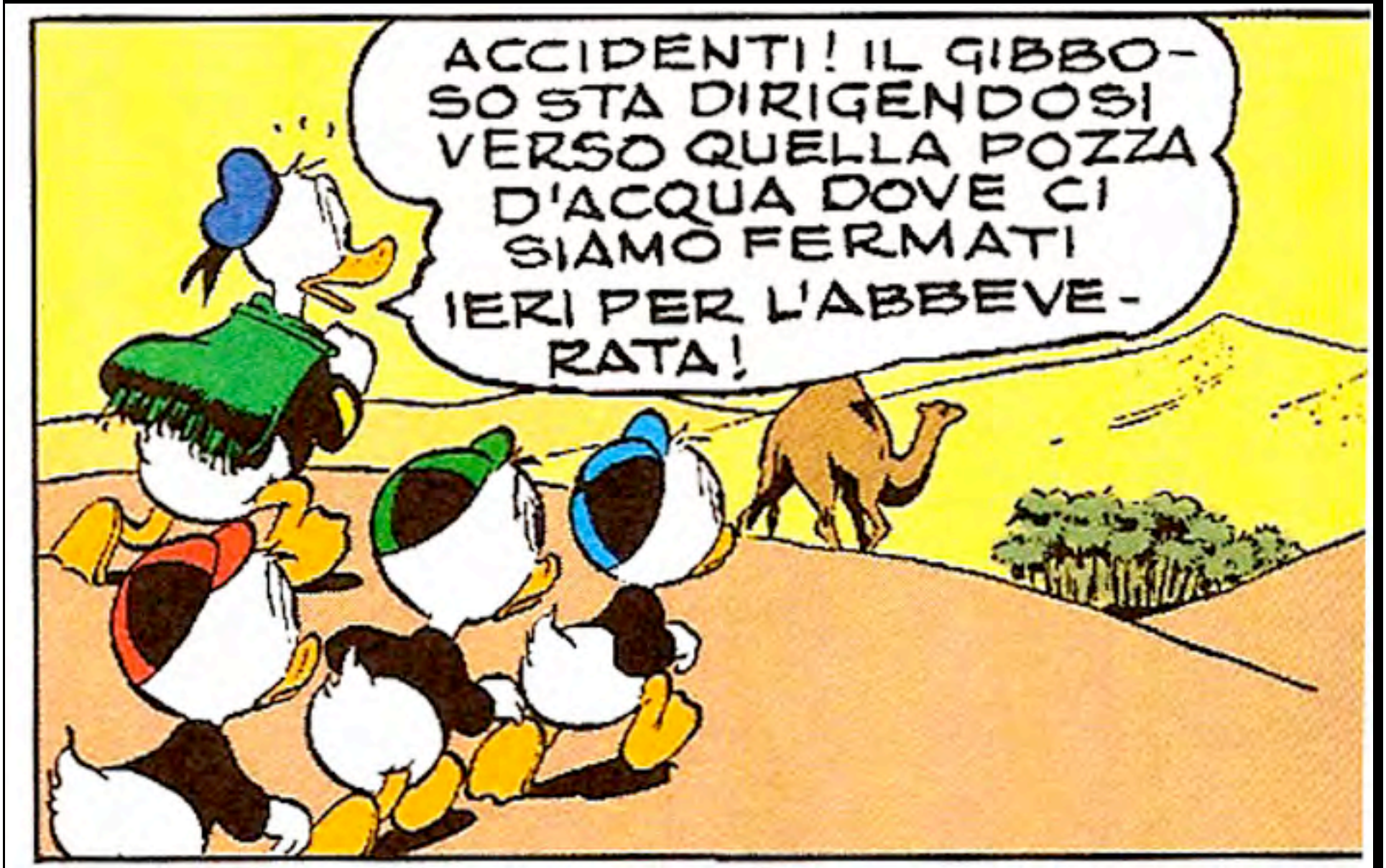
Iran: veduta aerea
di pozzi di escavazione
e ventilazione
in corrispondenza
di canali sotterranei

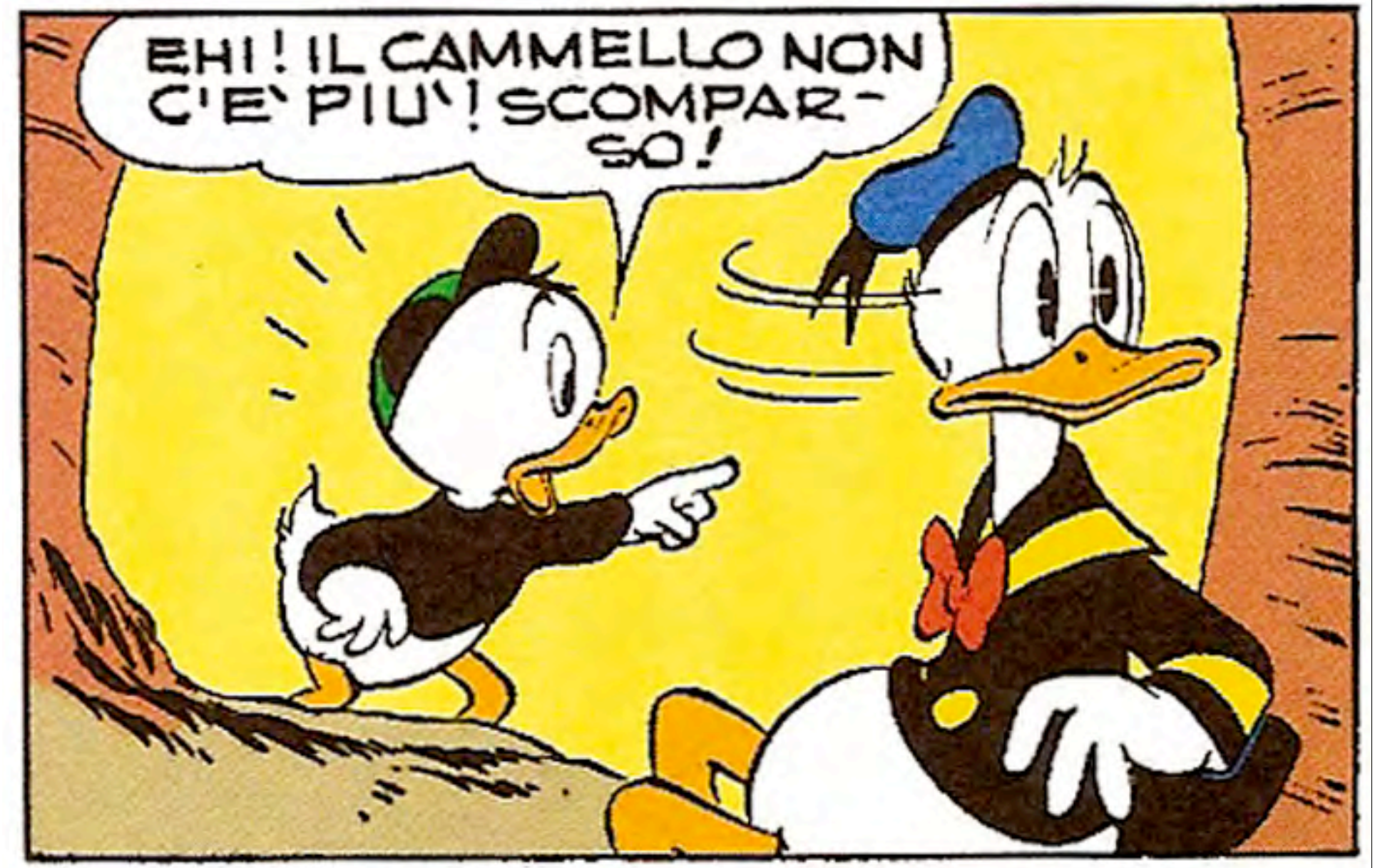
W. Disney (Karl Barks)

Paperino
e la clessidra magica

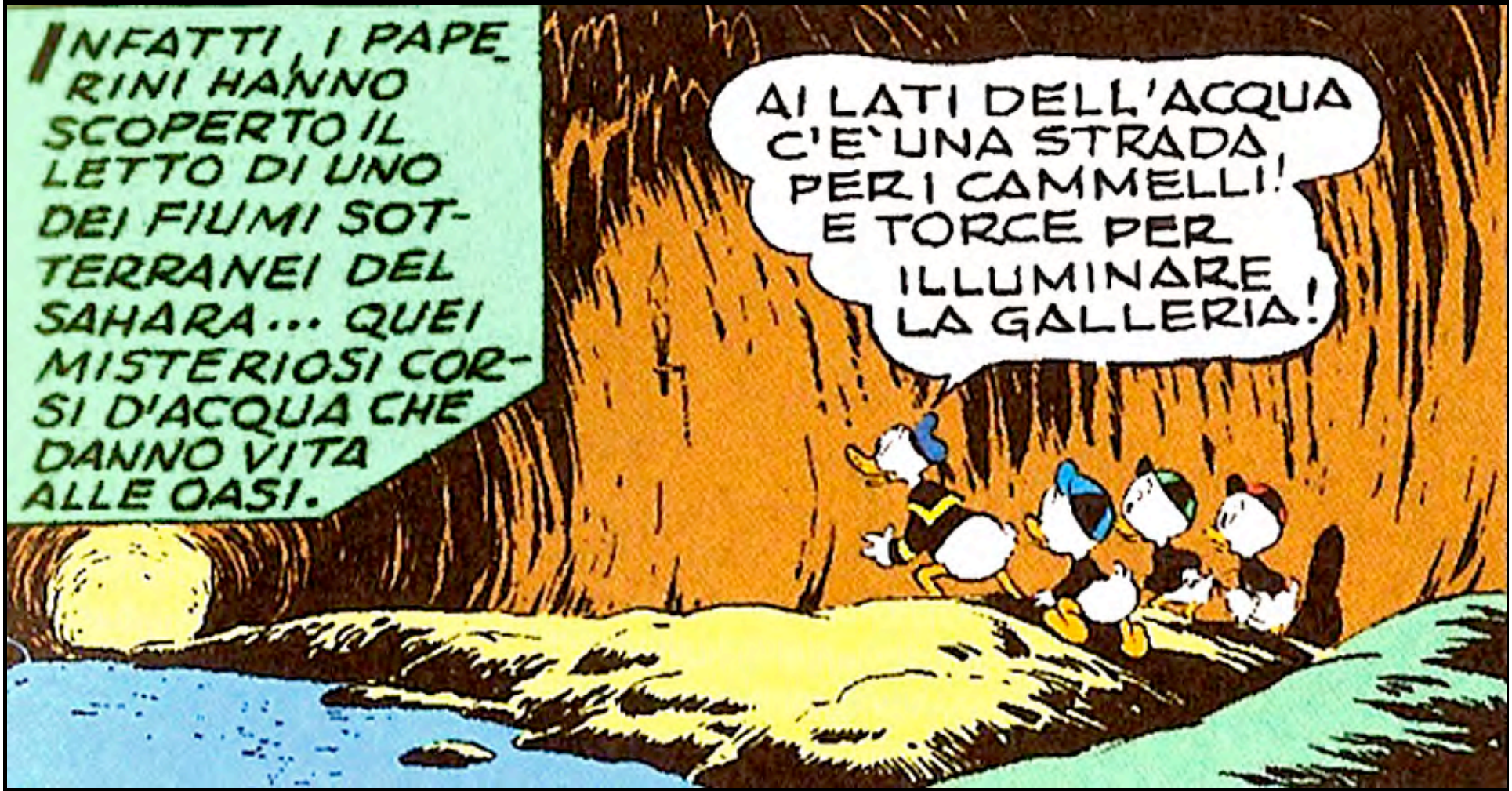
1950

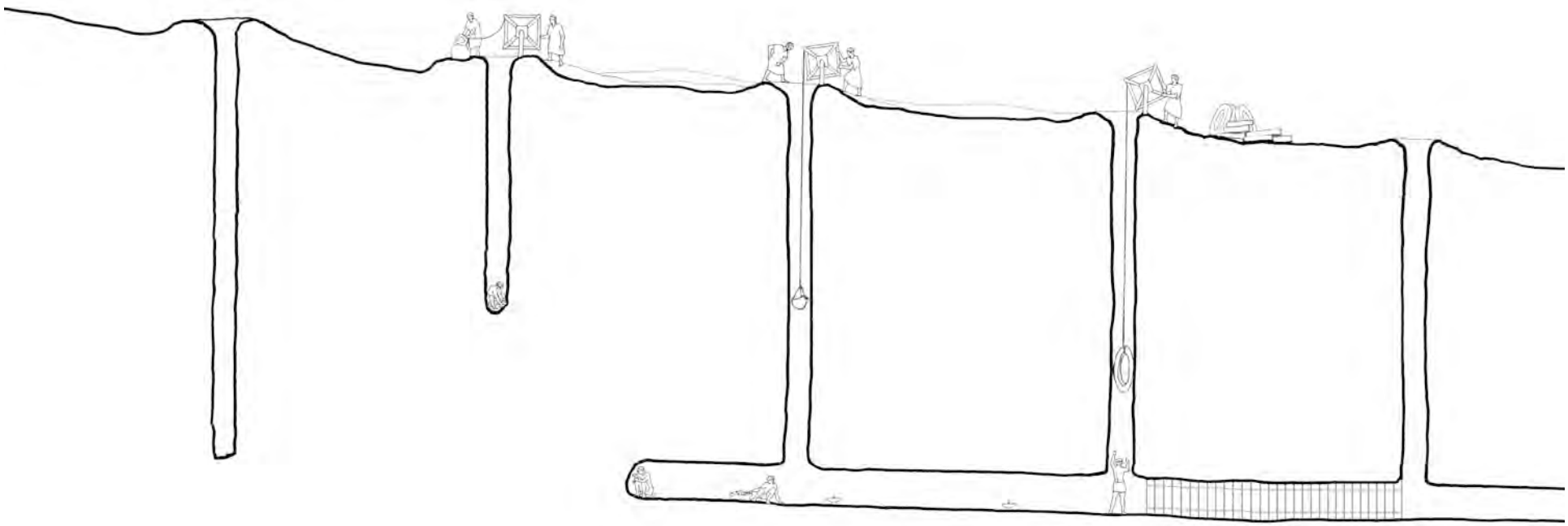

DICO! FORSE APPARTENEVA AI PREDONI
SEGUIA-MOLO!

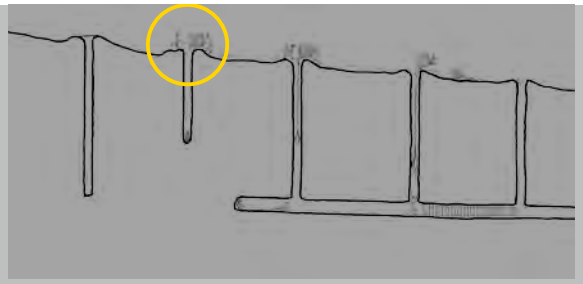

ACCIDENTI! IL GIBBO-
SO STA DIRIGENDOSI
VERSO QUELLA POZZA
D'ACQUA DOVE CI
SIAMO FERMATI
IERI PER L'ABBEVE-
RATA!

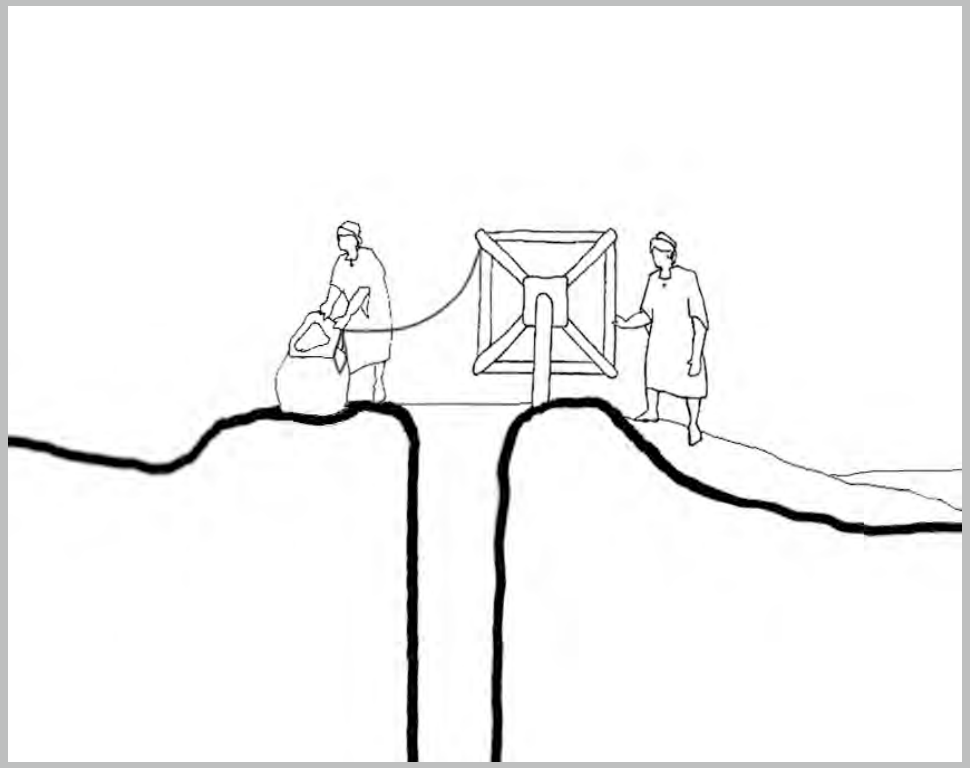

EHI! IL CAMMELLO NON C'E' PIU'! SCOMPAR-
SO!


DOVE PUO`ESSE-
RE? QUI NON CI SO-
NO POSTI PER NA-
SCONDERSI!

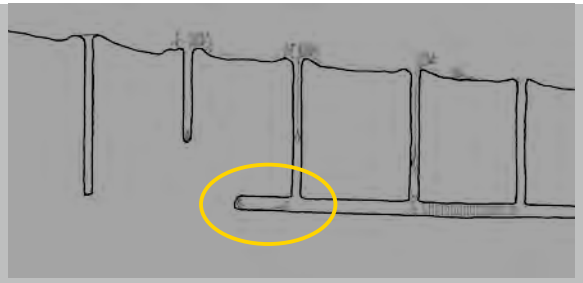

INFATTI, I PAPERINI HANNO SCOPERTO IL LETTO DI UNO DEI FIUMI SOTTERRANEI DEL SAHARA... QUEI MISTERIOSI CORSI D'ACQUA CHE DANNO VITA ALLE OASI.
AI LATI DELL'ACQUA C'E' UNA STRADA PER I CAMMELLI! E TORCE PER ILLUMINARE LA GALLERIA!

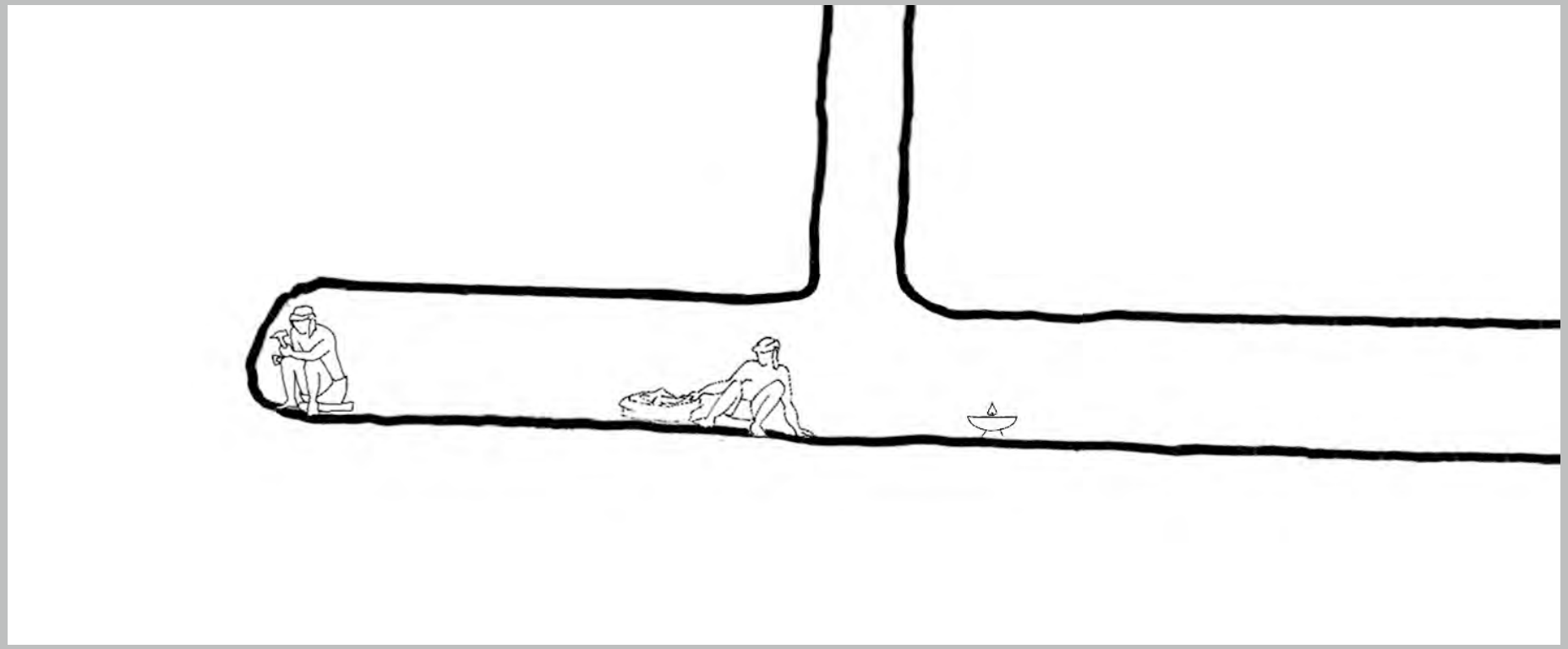




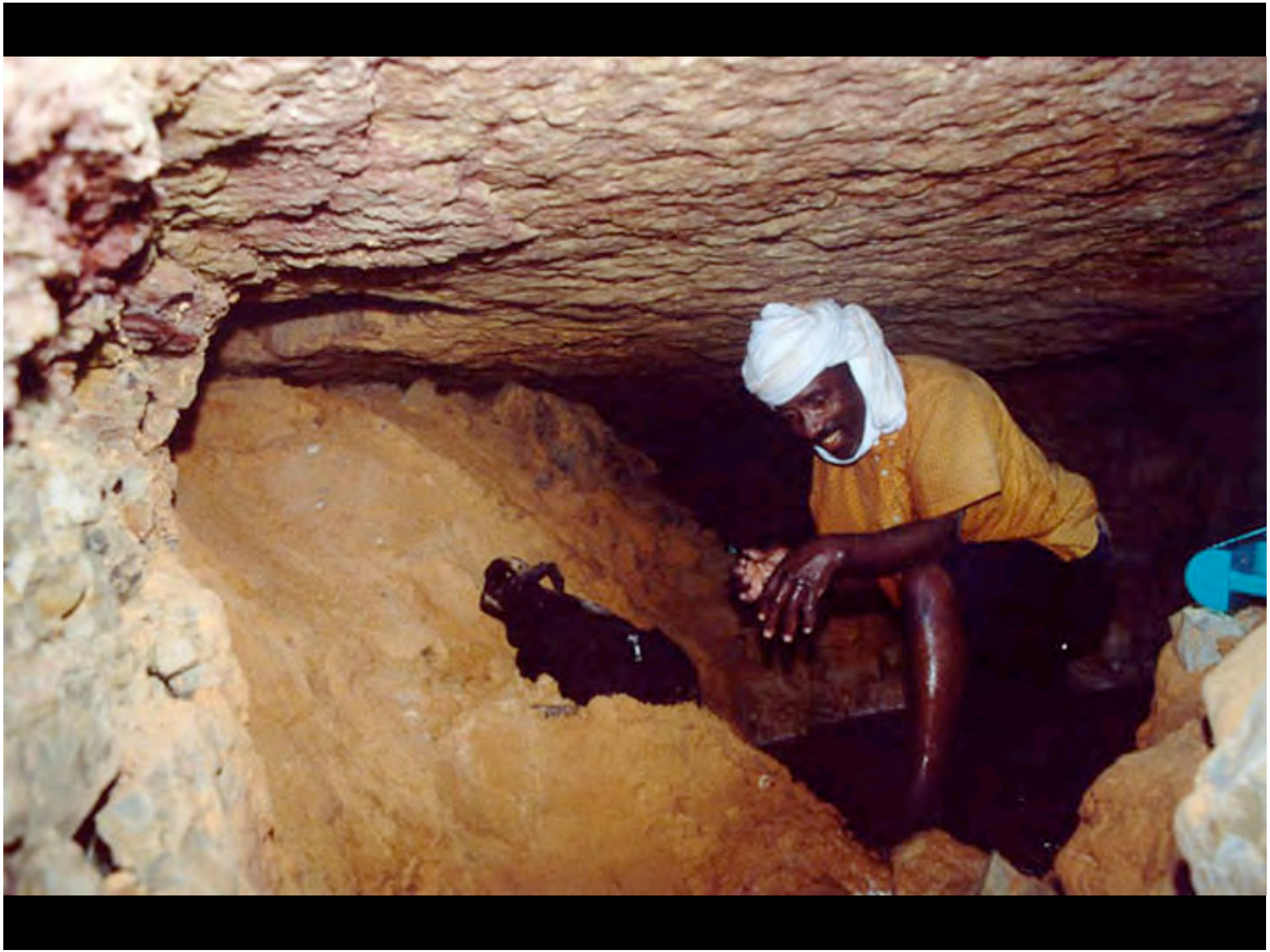


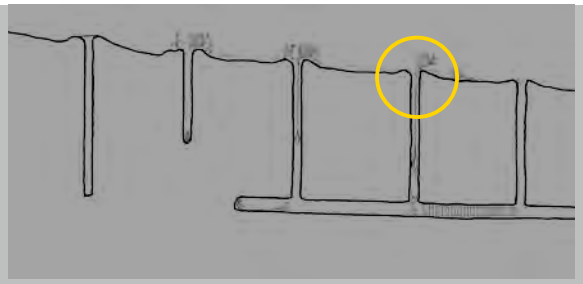
Verricello per portare in superficie il materiale di scavo

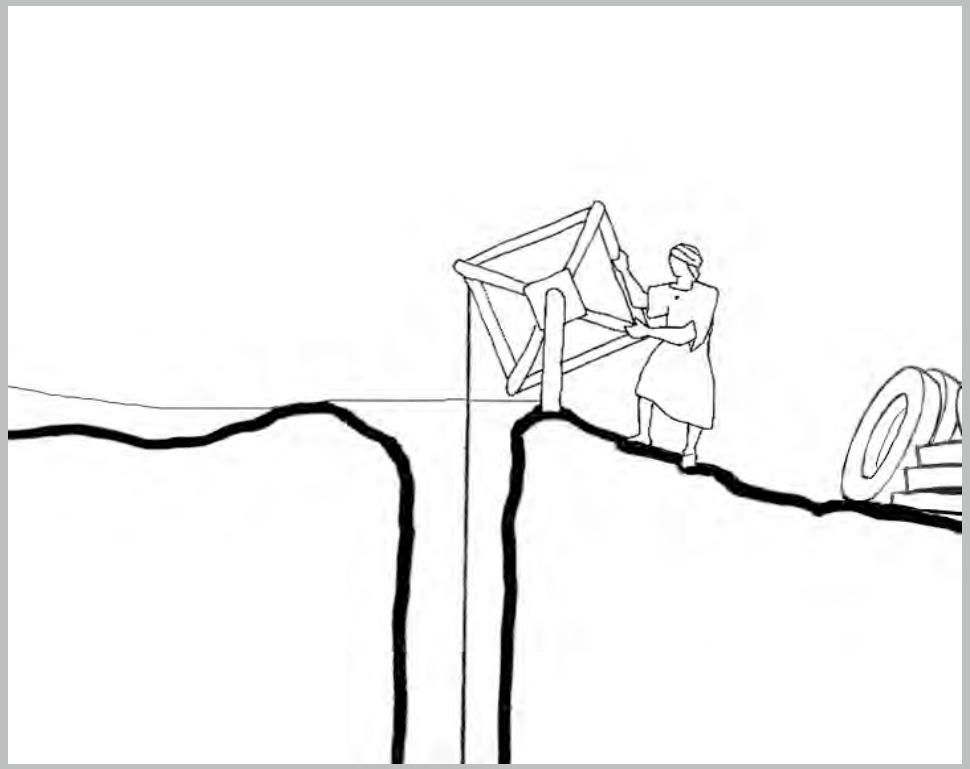




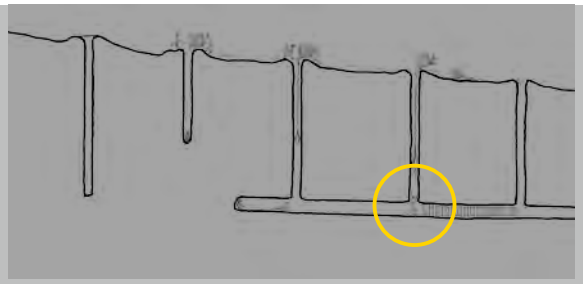
Fase di scavo in orizzontale che si inizia una volta incontrata la falda acquifera

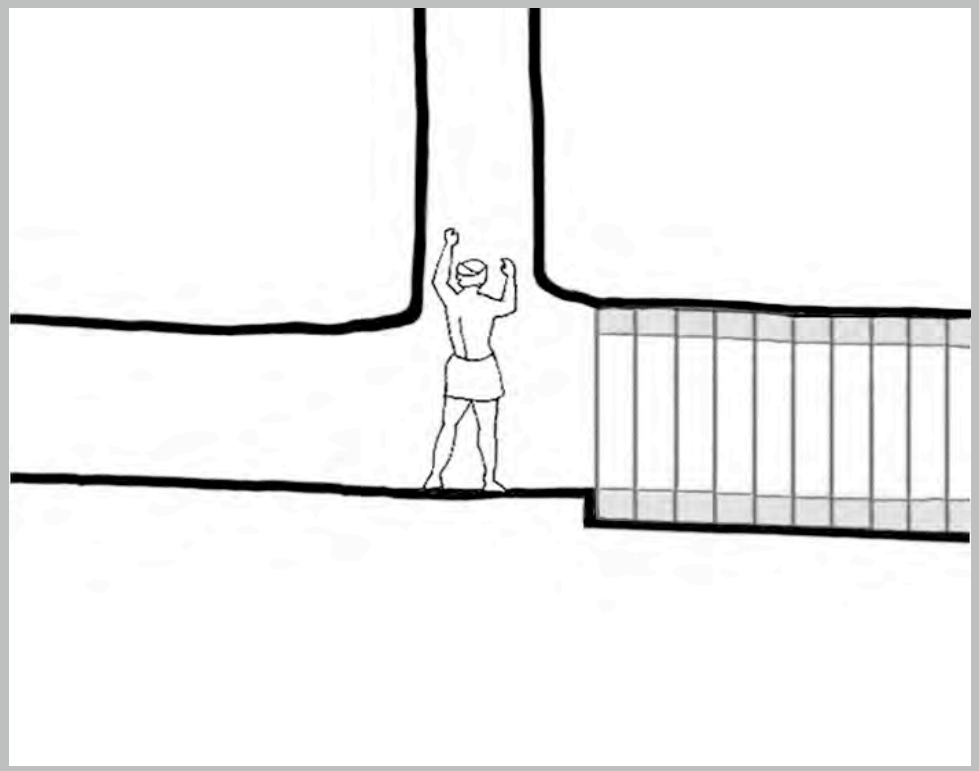




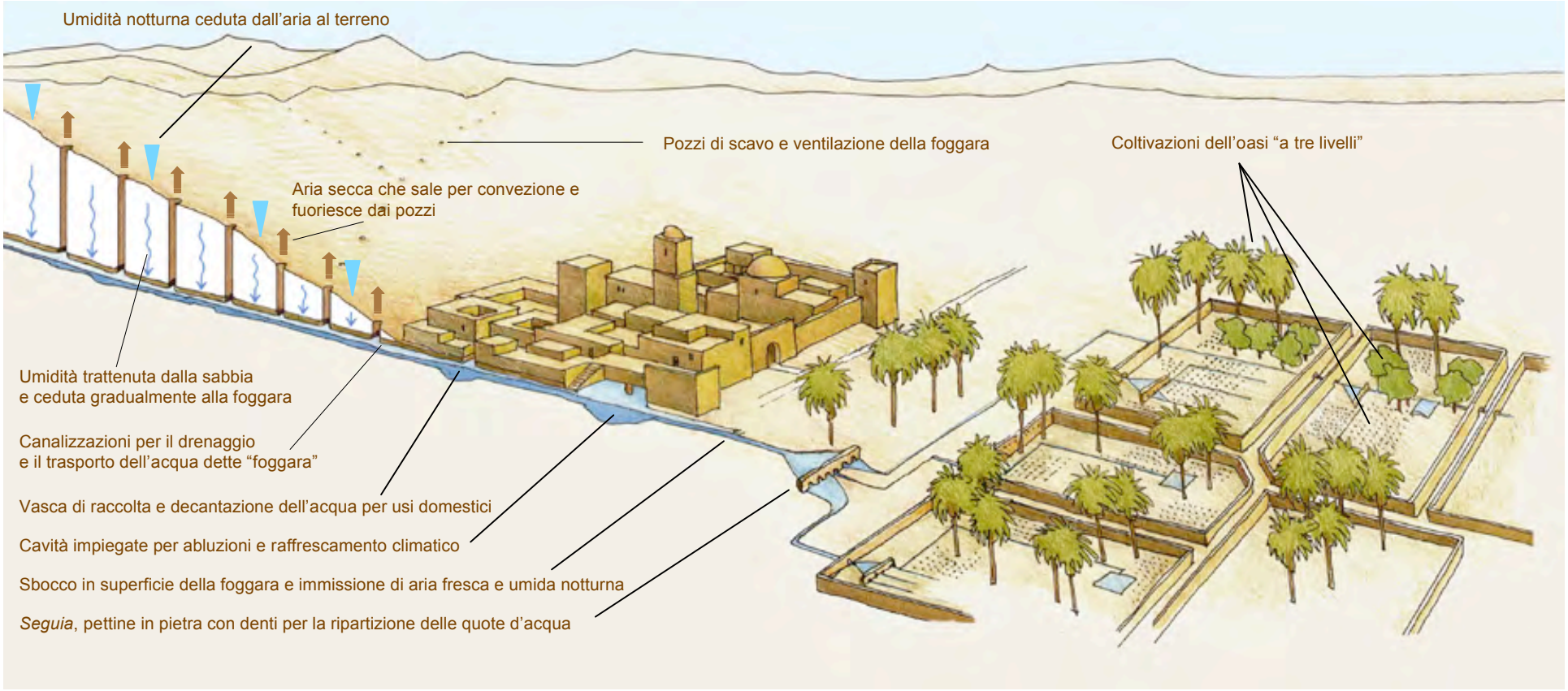


Nei tratti di terreno friabile vengono calati anelli di terracotta per irrobustire le pareti

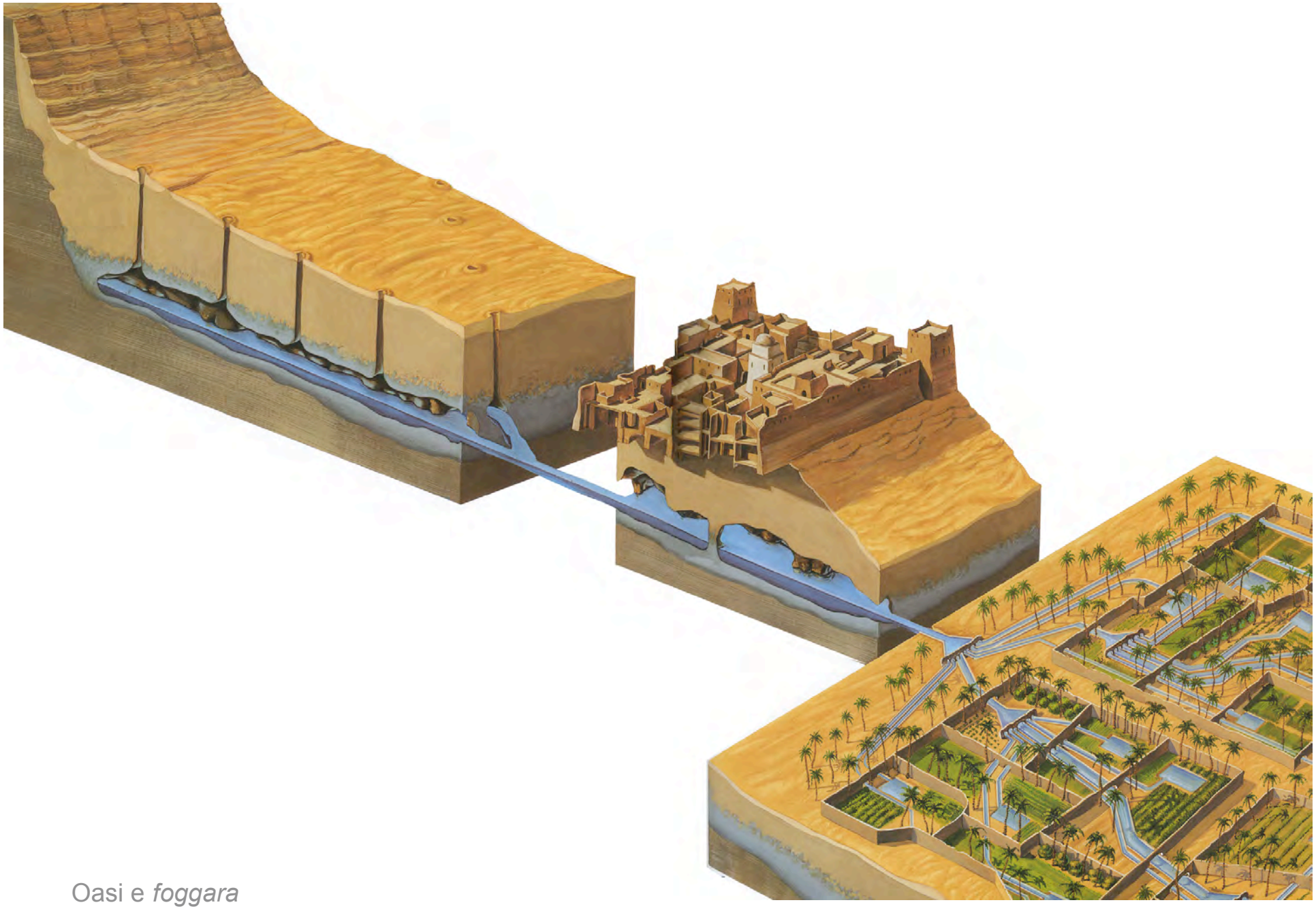




Nei tratti di terreno friabile vengono calati anelli di terracotta per irrobustire le pareti



Oasi e *foggara*
Timimoun *(Sahara algerino)*

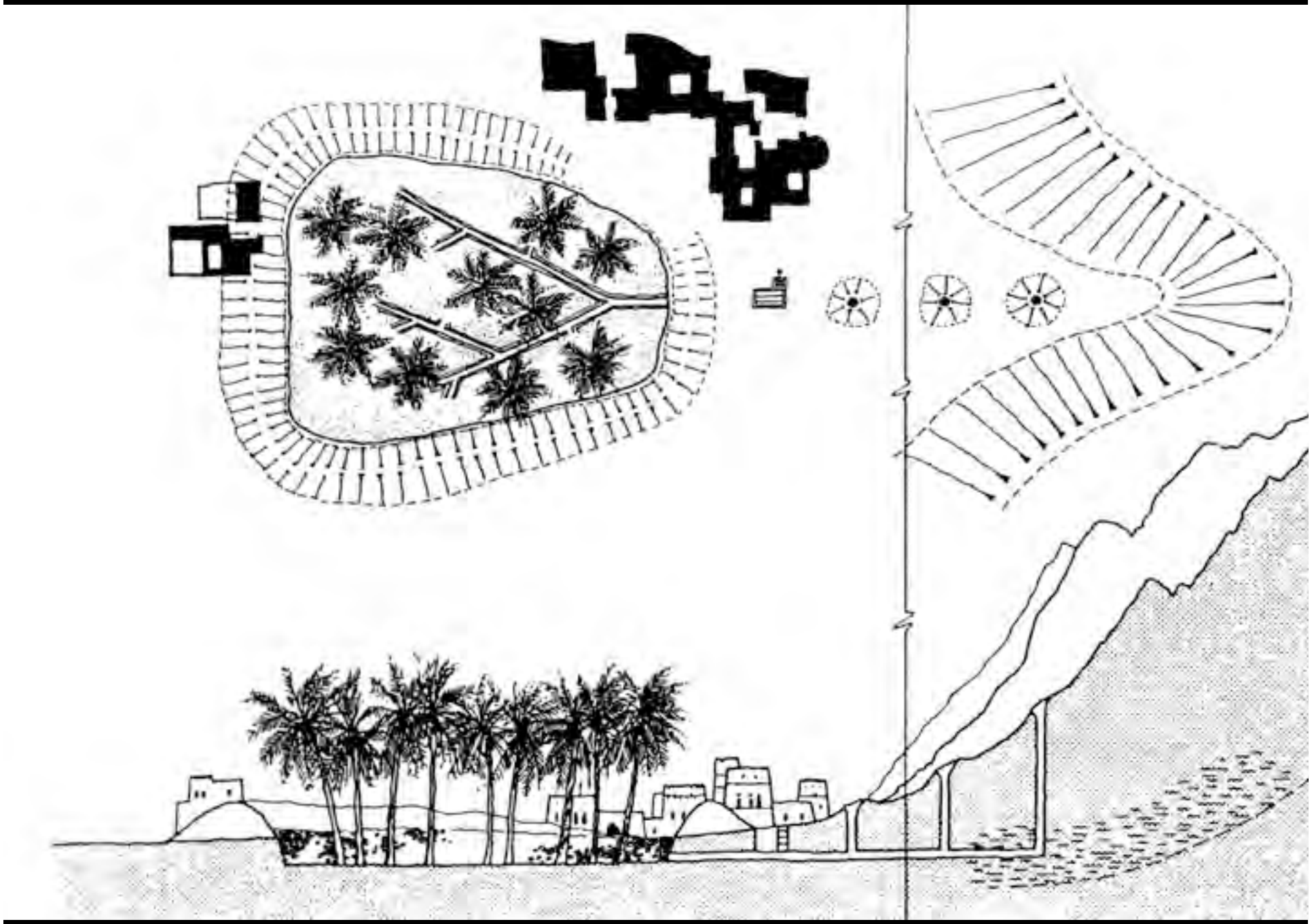


Oasi e *foggara*
Timimoun *(Sahara algerino)*


Persepoli - Iran

Pressi di Teheran - Iran

Oasi di Tunin – Ghadames - Libia



Le *foggara*
non sono semplici convogliatori
di risorse idriche
ma attraverso il loro sviluppo lineare
captano i microflussi infiltrati nelle rocce
e creano acque libere

Esse funzionano come vere e proprie miniere di umidità,
dispositivi in grado di produrre acqua
dalla sabbia del deserto

Il canale sotterraneo non affonda nella falda
ma, ove essa esiste, ne drena la parte superiore
senza provocarne l'abbassamento
e assorbendone quantità compatibili
con le capacità di rinnovamento

Si calcola che per scavare 1 km di canale sotterraneo
sia necessario il lavoro di 4 uomini per un anno

Nel 1975 l'antropologo americano Hans Wulff
valutò l'estensione lineare del sistema dei circa 22.000
***qanat* allora presenti in Iran**
in

300.000
- T R E C E N T O M I L A -
KILOMETRI

Ovvero, ad esempio,
un lavoro ininterrotto di 3.000 uomini
per 400 anni