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Geographical Notice of the Empire of Morocco

Author(s): Lieutenant Washington

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X.—*Geographical Notice of the Empire of Marocco.* By Lieutenant Washington, R.N. Read 11th and 25th April, 1831.

OF the empire of Marocco, the principal cities and the manners and customs of its inhabitants have been often described; but of the geography of the country, of the positions of the different towns, of the line of sea-coast, of the course of its rivers, of the height of its mountains and elevated plains, and of its geological structure and general features, our knowledge is very imperfect.

A brief but accurate notice of such information as was obtained in a journey to and from the city of Marocco and the Atlas mountains, and during a residence of one month in the capital in the winter of 1829-30, is contained in the following pages.

The party destined to form the mission to Marocco assembled, in the beginning of November, at the hospitable British consulate at Tangier, which town, situated on a steep acclivity rising at once from the beach, presents its eastern and not unpleasing aspect to a bay about three miles wide. It is surrounded by mouldering walls, round and square towers every sixty paces, and three strong gates. Its defences towards the sea are two batteries, one above the other, on the south side of the sea-gate. Directly in front of the landing place, high on the wall, are about twelve guns; to the north, in a circular battery commanding the bay, about twenty guns of all calibres, mounted on clumsy Moorish carriages, which would not stand fire for ten minutes; crowning all, to the north, is an old and extensive castle, L'Kassbah, and the residence of the governor. On the land side, ruined walls and a ditch are the only defences. The gates are shut at sunset, and a watch is kept by night.

El Jamaā Kibeer, or principal mosque, is large and rather handsome. Its *smā* or tower, placed at the north-west angle, lofty, and wrought in coloured tessellated work; as is also the pavement of the mosque, round which stands a colonnade of low pillars, with a fountain in the centre.

The streets, except the main street which crosses the town irregularly from the sea to the land gate, are narrow and crooked. The houses low, with flat tops, except those of the European consuls, which are many of them good.

In an open space about the middle of the main street there is a vegetable and fruit market. But the principal one, *Sōk el Wahad*, is held on Sunday, outside the western gate, and well supplied with poultry, game, vegetables, dates, fruit, &c. Meat is good and cheap.

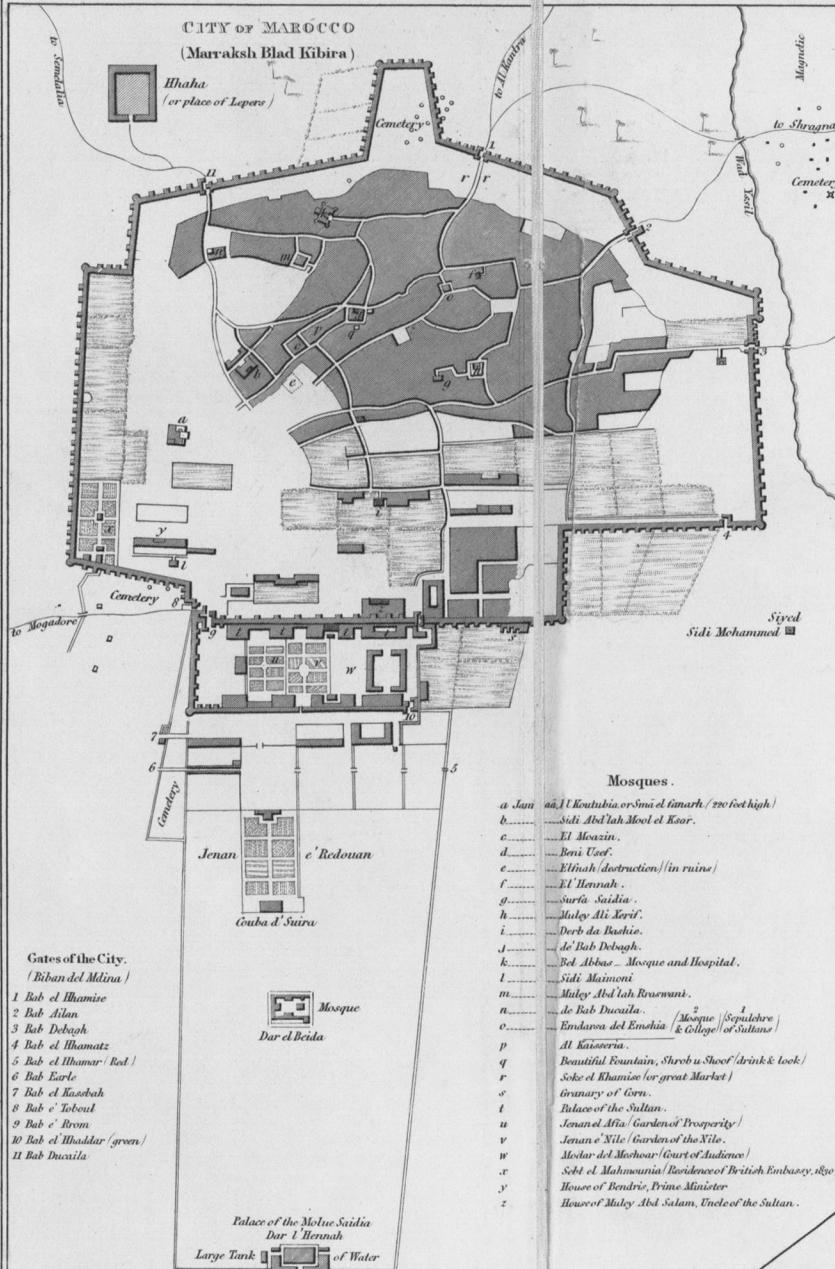
This town is the residence of a bashaw, whose territory extends about twenty-five miles to the southward.

Outside the walls are some productive gardens belonging to the

10°

9°

8°

CITY OF MAROCCO
(Marraksh Blad Kibira)

35°

34°

33°

- Gates of the City.
(Bab el Melha)
1 Bab el Ihammiz
2 Bab el Ailan
3 Bab el Debagh
4 Bab el Ihamat
5 Bab el Ihammor (Red)
6 Bab Eral
7 Bab el Kasbah
8 Bab el Toubou
9 Bab el Ifroum
10 Bab el Ihaddar (green)
11 Bab Duaula

- Mosques.
a Jan *El Koutubia or Smâ el tamarh / 220 feet high*
b ... *Sidi Abd lab Mool el Esar*.
c ... *El Mezarin*.
d ... *Beni Uesf*.
e ... *El Hiba / destruction / in ruins*.
f ... *El Hennah*.
g ... *Surfa Saidia*.
h ... *Muley Ali Kerif*.
i ... *Derb da Basbie*.
j ... *de Bab Debagh*.
k ... *Bab Abous - Mosque and Hospital*.
l ... *Sidi Matmoni*.
m ... *Muley Abd lab Rouswuni*.
n ... *de Bab Duaula*.
o ... *Endauros del Emidhia / Mosque / Sepulchre / of Sultans*
p ... *Al Kasseria*.
q ... *Beautiful Fountain, Shrob u Shoot / drink & look*/
r ... *Sohs el Ehamiz (or great Market)*.
s ... *Granary of Corn*.
t ... *Palace of the Sultan*.
u ... *Jenan el Afia / Garden of Prosperity /*
v ... *Jenan e Xile / Garden of the Nile*.
w ... *Medar del Mohor / Court of Audience*.
x ... *Sohs el Mahounia / Residence of British Embassy, also*
y ... *House of Bendrie, Prime Minister*.
z ... *House of Muley Abd Salam, Uncle of the Sultan*.

Scale of One Geographic Mile.

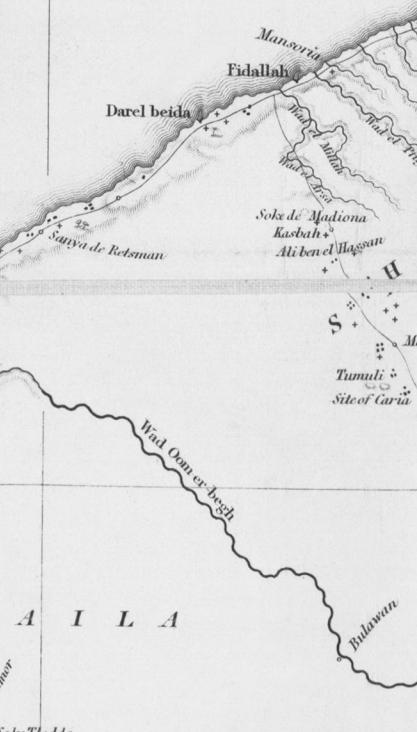
MAROC
from Observe

IN 1804

Geographical Positions.

	Lat. ^o N.	Long. ^o W.	Author
Ceuta	35. 54. 10.	5. 17. 25	
Cape Spartel	35. 49. 0	5. 54. 0	Tosião
Tangier	35. 47. 54	5. 48. 0	
Tetuan	35. 36. 0	5. 24. 0	
Arzilia	35. 29. 30	6. 0. 0	M.Washington
El Arouche	35. 12. 50	6. 9. 0	L.Smith R.A.
Al Kazar	34. 57. 10	5. 58. 0	
Mamora	34. 52. 30	6. 25. 0	Capt.Boteler R.A.
Wazen	34. 42. 29	5. 35. 0	Budia (1804)
Mehedia	34. 18. 0	6. 36. 0	M.Washington
Fax	34. 6. 0	4. 58. 15	Budia (1804)
Mesdras	33. 58. 30	5. 30. 0	
Slaa / Saled	34. 2. 45	6. 45. 30	Capt.Boteler R.A.
Rabat	34. 2. 30	6. 46. 0	M.Washington
El Mansoria	33. 46. 10	7. 20. 0	
Fidallah	33. 44. 0	7. 24. 0	M.Washington
Daret beida	33. 36. 30	7. 40. 0	
Azamor	33. 17. 37	8. 15. 0	L.Smith R.A.
Mazagan	33. 14. 0	8. 21. 0	
Cape Blanco	33. 8. 0	8. 40. 0	Admiralty Chart
El Waladia	33. 48. 0	8. 48. 0	
Cape Gantin	32. 55. 0	9. 13. 20	
Sarly	32. 18. 0	9. 12. 0	Capt. Boteler R.A.
Morocco (El Koutubia)	31. 37. 40	7. 36. 0	Budia (1804)
Mogador (Swenich)	31. 30. 30	9. 44. 0	
Cape Tebinch	31. 4. 0	9. 47. 30	Capt.Boteler R.A.

Scale of 30 Geographical Miles.



MAROCCO,

from Observations

IN 18. 30.

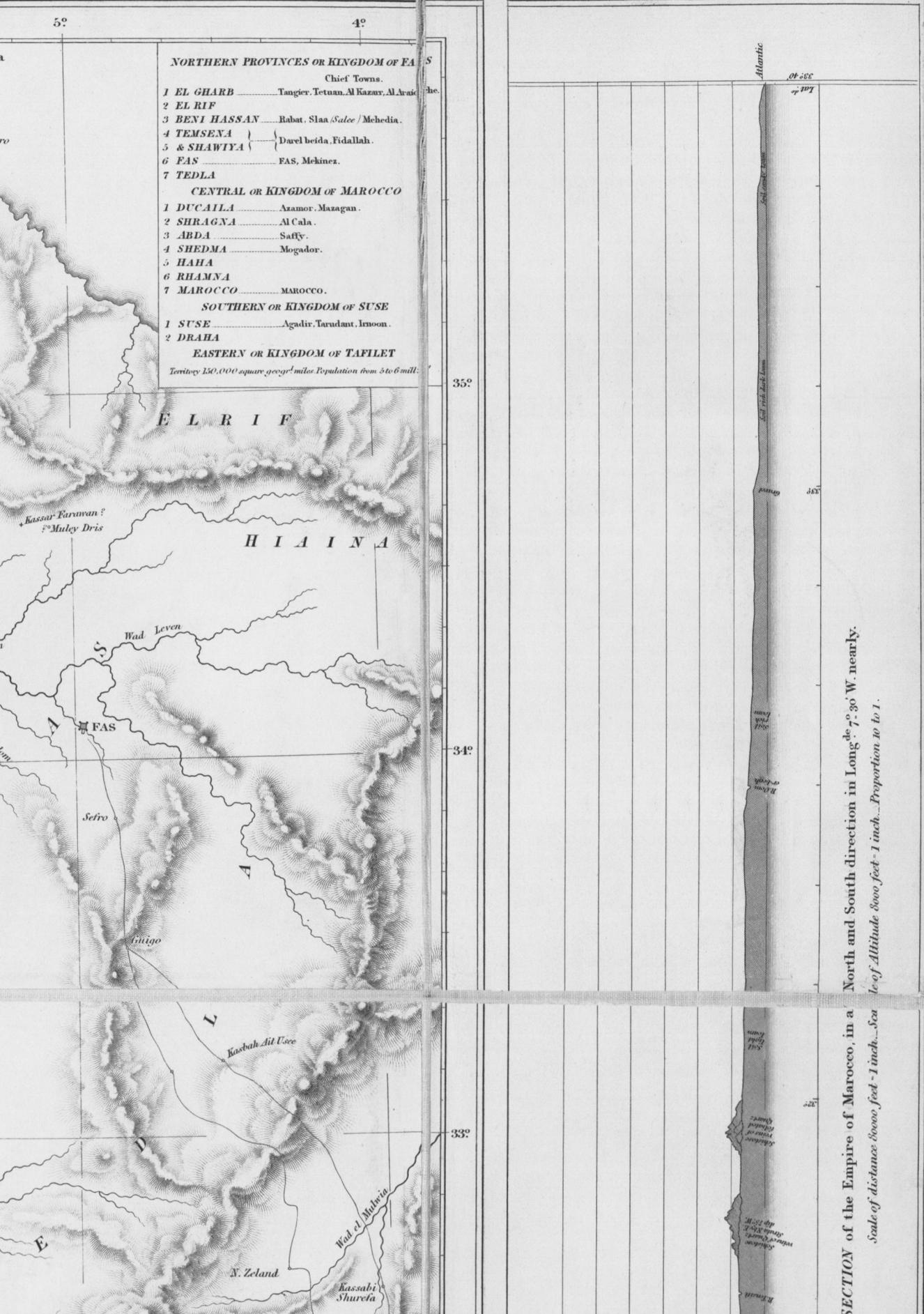
Geographical Positions.

Lat. ^o N.	Long. ^o W.	Authorities
35. 54. 10	5. 17. 25	
35. 49. 0	5. 54. 0	Tosiño
35. 47. 54	5. 48. 0	
35. 36. 0	5. 24. 0	
35. 29. 30	6. 0. 0	Mr Washington R.N. 1830 /
35. 12. 50	6. 9. 0	Lt Smith R.A. /
34. 57. 10	5. 52. 0	
34. 52. 30	6. 25. 0	Capt. Boteler R.N. 1828 /
34. 42. 29	5. 35. 0	Budia 1804 /
34. 18. 0	6. 36. 0	Mr Washington R.N. 1830 /
34. 6. 0	4. 58. 15	Budia 1804 /
33. 58. 30	5. 30. 0	
32. 4. 45	6. 45. 30	Capt. Boteler R.N. 1828 /
32. 2. 30	6. 46. 0	Mr Washington R.N. 1830 /
32. 46. 10	7. 20. 0	
32. 44. 0	7. 24. 0	Mr Washington R.N. 1830 /
32. 36. 30	7. 40. 0	Lt Smith R.A. /
32. 17. 37	8. 15. 0	
32. 14. 0	8. 21. 0	
32. 8. 0	8. 40. 0	Admiralty Chart
32. 48. 0	8. 48. 0	
32. 35. 0	9. 13. 20	Capt. Boteler R.N. /
32. 18. 15	9. 12. 0	Budia 1804 /
32. 37. 40	7. 36. 0	Mr Washington R.N. 1830 /
31. 30. 30	9. 44. 0	
31. 4. 0	9. 47. 30	Capt. Boteler R.N. /

Scale of 30 Geographical Miles.

10 15 20 25 30





Gates of the City.
(Bab el Medina)
1 Bab el Ihamise
2 Bab el Ailan
3 Bab Debagh
4 Bab el Ihamat
5 Bab el Ihamar / Red /
6 Bab Erol
7 Bab el Kasbah
8 Bab e' Toboul
9 Bab e' Broum
10 Bab el Ihaddar / green /
11 Bab Dusula



Mosque

Dar el Béida

Palace of the Molue Saïdia
Dar l'Hennah
Large Tank of Water

Scale of One Geographic Mile.

n.....	Suley Ali Aerd.
i.....	Derb da Bashe.
j.....	de Bab Debagh.
k.....	Bab Abous - Mosque and Hospital.
l.....	Sidi Matmoni
m.....	Muley Abd el Bouswani.
n.....	de Bab Dusula.
o.....	Emdanou del Emchia / Mosque / Sepulchre / of Sultans /
p.....	Al Kasseria.
q.....	Beautiful Fountain, Shrob u Shoot / drink & look /
r.....	Sole el Ihamise (or great Market)
s.....	Granary of Corn.
t.....	Palace of the Sultan.
u.....	Jenan el Afia / Garden of Prosperity /
v.....	Jeran e' Nle / Garden of the Nile.
w.....	Medar del Mohor / Court of Audience /
x.....	Sebt el Mahounia / Residence of British Embassy, 1850 /
y.....	House of Bendrie, Prime Minister
z.....	House of Muley Abd Salam, Uncle of the Sultan.

Scale of 30 Geographical Miles.

0 5 10 15 20 25 30

34°

33°

32°

31°

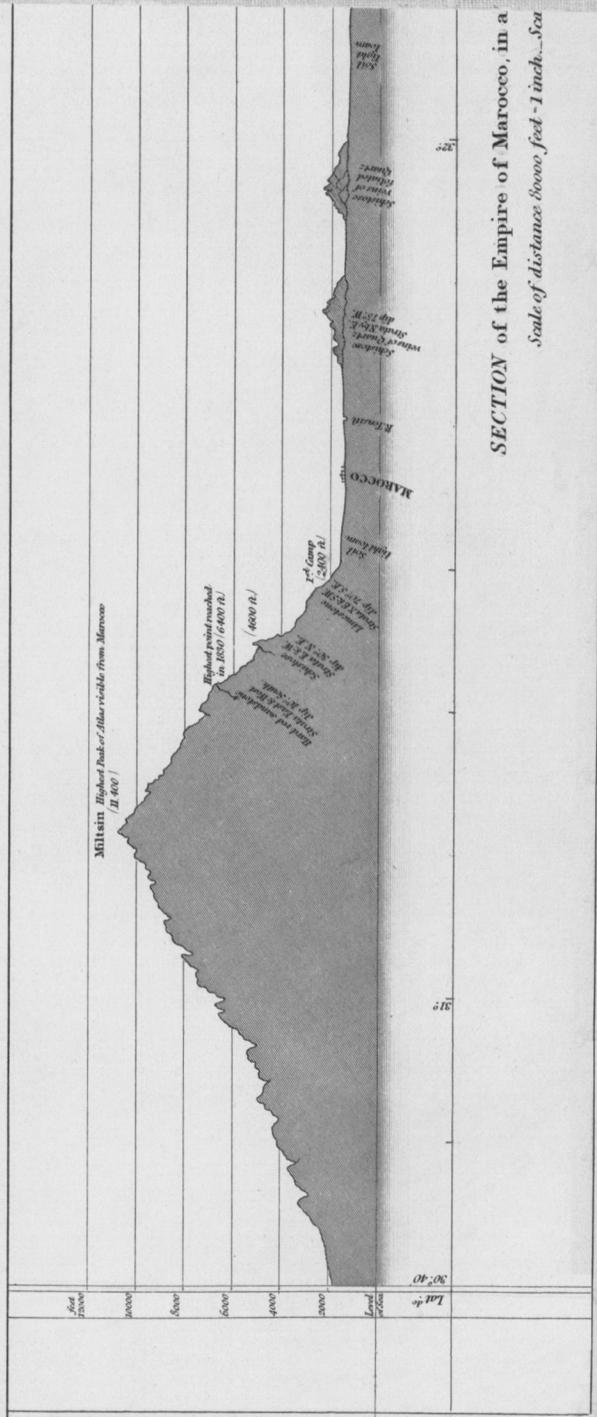
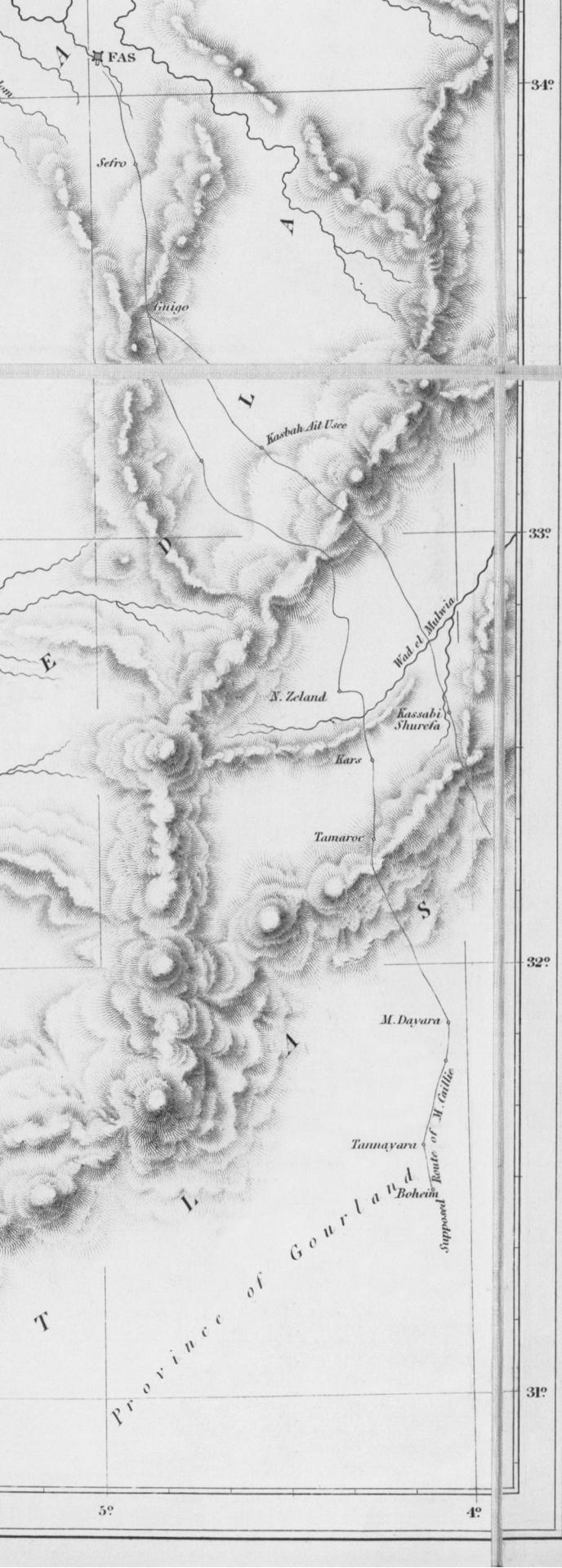


Scale of 30 Geographical Miles.

10 15 20 25 30



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SECTION of the Empire of Morocco, in a North and South direction in Long^{de} $7^{\circ} 30' W.$
Scale of distance 80000 feet - 1 inch.—Scale of Altitude 8000 feet - 1 inch.—Proportion to 1.

different consuls resident here, who are sufficient to form a very agreeable society. From a terrace in that of the Swedish consul is an extensive and pleasing view over the town of Tangier and its bay at your feet; the distant peaks of the Lesser Atlas in the south-east; and to the north, across the dark blue waters of the Straits, the coast of Spain, from the memorable Cape Trafalgar to the rock of Gibraltar. The anchorage in the bay is very tolerable, except in strong north-west winds. Were the mole rebuilt, the remains of which are still visible under water, the landing on the beach would be always secure. The ruins of old Tangier, possibly ancient Tingis, and a Roman bridge, are yet standing at the southern part of the bay. Four small batteries, of about six guns each, defend the sand-hills around the shores.

Population of Tangier, from 7000 to 8000, including 1500 Jews, who are the chief artisans.

Itinerary, 1st day, November 9, 1829.

The British embassy, consisting of a party of officers, the interpreter, a motley group of Moors, Arabs, and Jews, as muleteers and servants, escorted by a body of Moorish cavalry, accompanied by the Bashà of the province with his troops, and all the European consuls, to do honour to the mission, left Tangier, the road leading in a south direction, over a sandy soil, through the productive gardens that surround the town; then through an undulating country, over rounded schistose hills, about three hundred feet high; mica slate, with veins of foliated quartz, occurring rarely; direction, north-west and south-east; dip of strata, 75° to south-west; and covered with scanty herbage; passing occasionally an Arab village of a few hovels, fenced by a hedge of aloes and prickly pear, or Indian fig*; here and there a patch of Guinea corn, otherwise no signs of cultivation; at eight miles reached our first encampment, a well chosen spot in a valley, surrounded by an amphitheatre of hills, the distant ranges in the south-east quarter stretching far away towards Cape Negro. We arrived at dusk, and found the tents ready pitched; and when, shortly after, the broad full moon rose above the mountains in the east, the scene was beautiful and picturesque indeed. On each side of the round handsome tent of our Moorish leader, *Sidi Mohammed*, striped blue and white, and surmounted by a gilt globe, were the other tents, forming a circle, with the Arabs and baggage in the centre; camels, horses, and mules picqueted around; here and there a group of Moors, their swarthy faces lighted up by the watch fires over which they were leaning; and when the Moslems began their chant of the *Slât el Ashar*, or evening prayer, it completed a scene that we had all read descriptions

* *Cactus Opuntia* (*Kermuse d'Ensarra*, *i. e.*, Christian fig.)

of in our youthful days, but which none of the party had seen realized till this moment.

Itinerary, 2d day, November 10.

Shortly before dawn of day roused by the manly voice of our chief joining with all his troops in his morning prayers ; and such was the practice, not only this morning, but ever after on the journey. Be the weather what it would—rain and storm, or fine and calm—long before day were the Musselims prostrate on the earth, chaunting the prescribed chapter of their sacred Korân.

Road to-day in a S. by W. direction 10 miles, over the well wooded hill *Dâhr Acclaou*; cork, wild olive, *droo*, myrtle, heath, broom, palmetto, &c. ; masses of rifted sand-stone scattered about in wild confusion; soil, gravelly clay. From summit of this hill (500 feet), which is a western spur of the northern branch of the Lesser Atlas, an extensive view of bold mountain scenery in the east and north-east, even to Ape's Hill and the rock of Gibraltar, of Cape Spartel in the north, and of the wanderings of two rivers in the plain beneath, which join round the foot of this hill, and flow into the Atlantic Ocean at three miles west. Fорded the *Wâd Meshra'l Shef*, (or stony ford,) and encamped on an elevated plain (400 feet) at a tepid spring of water called *Sanâa d'Ulad Sbaida*; passed five Arab villages, one *coubba*, or saint's tomb.

Itinerary, 3d day, November 11.

Marched 10 miles S., through a valley about eight miles wide, with many springs; bounded on the west by a hilly tract (500 feet), forming the sea-coast, distant about four miles; on the east by a range of bulky mountains (2500 feet) called *Djibbel Habeeb* (beloved hill); soil, light clay; little or no cultivation; a few fields of *drâ**, or Guinea corn; passed four Arab villages, three *coubbas*, or sanctoria; encamped at entrance of *Fas y Rechan* (valley of myrtle). About two leagues east-north-east of this spot stands a curious rock, called *L'Ooted*, or pegrock, from description like those we are accustomed in England to call Druidical.

Itinerary, 4th day, November 12.

Course S. 16 miles: first four over a plain of myrtle; then through a narrow valley half a mile broad, winding in a south and south-east direction, hence called the Camel's Neck; the latter part, over a plain of coarse herbage; soil, light clay and sand, with sandstone boulders; and through a wood of fine cork-trees, being the eastern extremity of *El Araîsh* forest. Encamped within two miles of *Al Kantra* (the bridge); scene of action between the Moors and Portuguese in 1578, where Don Sebastian, who has

* The word *durrak*, or *dhurrah*, pronounced rapidly, in the Moghrebine fashion. It is a kind of sorghum or millet.

the privilege of occasionally re-appearing, lost his life and crown. We thoroughly examined, sketched, measured and noted down this bridge, which is in good preservation, and still crosses *Wad el M'Hazen*. In the valley through which runs this river, and on its banks, the palma Christi, and various other shrubs; fine corn land to-day; rich alluvial soil; wild artichokes, thistles, &c.; a few patches of Guinea corn; hills to the west, forming sea-coas wooded; several flocks of sheep; ten Arab villages; three *coubbas*, surrounded with wild olive and fig; some deserted gardens; several springs and wells*.

Itinerary, 5th day, November 13.

Course S.S.E. 10 miles, fine open country; soil, light loam; greater cultivation; much more populous; herds of cattle, horses, mules, flocks of sheep; passed ten Arab villages; three *coubbas*, dazzling white, embosomed in wild olive and fig plantations, forming a pretty contrast. From a rising ground, beautiful view of the town of

Al Ksar (Kibeer), situated in a flat tract of rich, partially wooded meadow-land, through which meanders in a west-north-west direction, the river

L'Khos, a rapid but shallow stream; at this season of the year the channel about one hundred yards wide; the plain to the south-east bounded by beautiful mountain scenery. Conspicuous by its singular conical form is the peak of *Sarsar*, at the foot of which, said to be inhabited by Shereffs, is the town of *Wazen*.

Al Ksar, situated on the northern bank of river, distant half a mile, surrounded by orchards and gardens of orange, pomegranate, and palm, in great luxuriance; was built by Jacob, son of the mighty *Al Mansor* (the victorious), about the end of the twelfth century, and connected in history with the wars of Granada. The town is surrounded by old and ruinous walls of herring-bone brick-work and tapia, battlements, loop-holes, and small square towers, fifty paces apart, about one mile and a half in circumference. Rode through the streets; counted fourteen mosques, many of which were lighted up and spacious; streets narrow, and at intervals arched across; houses remarkable for having ridged roofs of tile—the only town in Barbary.

Al Kaisseria, or Bazaar, contains a few mean shops; no business doing; *sôcs* (markets) and *fondacs* (inns) deserted and lifeless. Population about eight thousand, of which five hundred may be Jews; but doubtless it had been much more populous†.

* It will be remarked that this Journal is simply geographical. During a journey of some hundred miles in this little known country, of course much other valuable information was gained, which it is hoped will soon be laid before the public.

† Jackson's estimate of the population in this country is, generally speaking, too exaggerated to require contradiction.

Some little trade in salt, which is procured from the neighbouring hills*. The weather at this season was deliciously fine; the early rains had fallen, and the air was mild—more like spring than the approach of winter; the nights heavenly, but especially this night was calm, still, and serene; every star in the heavens distinctly visible; Venus, as a globe of liquid fire, gradually declining in the west; nought to break the stillness but the occasional bark of the watch-dog, or the drowsy note of the Arab drum from the distant tents, whose inhabitants passed away the tedious hours of night by reciting their wild tale of war and love.

Itinerary 6th and 7th days, November 14, 15.

Course S.W. 9 miles, W. by S. 12; over ground a succession of vallies, and low ranges of hills; one a mammillary range of two hundred feet, soil deep clay, and hills of gravel; boulders of ferruginous clay-stone; dried up thistles, and plants like fennel, called *el clagh* (gum ammoniac); several beds of mountain streams, east and west direction. At entrance of great plain of Mamōra, two tumuli; herds of cattle. As we enter the grazing country, Arab villages change into *douars*, or circular encampments of from twenty to thirty tents, seventeen of which we passed, and five *coubbas*. Approaching the Atlantic, sea visible from the heights.

Itinerary, 8th day, November 16.

Course S.W. 11 miles; reached the northern extremity of the large lake, twenty miles long by one and a half broad, of fresh water, called *Murja Ras ed Dowra* (or lake with the winding head), covered with wild-fowl; its western bank only a mile and a half from the Atlantic, separated by a range of sand-hills about two hundred and fifty feet high, covered with coarse herbage, and which rise about three-quarters of a mile from the western shore of the lake along which our road leads; soil light and sandy; a forest of *el clagh* (gum ammoniac); some plants ten feet high, stem five inches thick; such are the annuals in this prolific country. Five *coubbas*, ten *douars* on eastern bank of lake, a few trees, and herds of cattle.

* In examining the map of Don Juan Badia (Ali Bey), in Marocco (the only one that has any pretensions to accuracy), it must be allowed that where he *actually* did make observations, he is generally correct; but in compiling his map mistakes have arisen, possibly through the carelessness of the editor. It is not wished to detract from a work that undoubtedly has great merit, but facts must be stated clearly.

1. *Al Ksar* is placed 4', or 16'' of time *east* of Tangier; it should be four miles *west* of Tangier.

2. The difference of longitude between Cape Spartel and El Araish is assumed at a mile and a half; it should be fifteen miles.

3. *El Arāish* is placed seven miles and a half west of Tangier; it should be eighteen miles and a half. These mistakes occur within fifty miles of the point he started from. As for his plan of the city of Marocco, it must have been drawn at Paris from recollection, so unlike is it to the original.

Itinerary, 9th day, November 17.

Rode about 13 miles S.W., along the margin of the lake, in which are several islands with saints' tombs, insular spots being here, as elsewhere, sacred to holy purposes. Lake covered with wild-fowl of all sorts—widgeon, wild-duck, snipe, curlew, water-hens, dabchicks, herons, cormorants, besides plover and peewits : it produces fine eels ; soil light, sandy ; coarse herbage ; little or no cultivation ; no wood ; herds of cattle on opposite bank of lake ; distant mountains in the east, bounding the great plain of *Msharrah Roumella* ; passed fifteen douars ; four coubbas to-day.

Itinerary, 10th day, November 18.

S.W. by S. 11 miles. Lake loses itself in a marshy stream ; country becomes hilly—highest five hundred feet ; soil gravelly and sandy ; colocynth and coarse herbage ; pass two coubbas, nine douars, three springs ; from summit of these hills of sand-stone basis, view of the

Wād Seboo, winding in the boldest sweeps imaginable, through a rich and varied plain, far as the eye can reach ; descended a steep bank covered with broom, myrtle, juniper ; crossed the river, about four hundred yards wide ; a bar of sand, a quarter of a mile from its outlet, extends almost across, and nearly dry at low water spring tides ; inside from three to four fathoms water ; rise of tide seven or eight feet ; a good spring of water one hundred yards distant from the northern bank of the river opposite the town. Rode through the town of

Mehedīa, situated on a height of about ten feet, on the southern bank of the river, and distant one mile from the sea : when formerly in the possession of the Portuguese it was a place of some consequence, as the ruins of handsome fountains, arches, and churches attest ; its fortifications also were respectable ; a double wall, if not a ditch, on the south-western side ; a long low battery defended the beach and entrance of river, and the citadel commanded the whole ; at present eight guns mounted are its sole defence. The town now contains from three to four hundred inhabitants, chiefly fishermen, who subsist by the sale of shebhel, an excellent fish, much like salmon, which is caught here in great abundance. Water communication exists between this city and Fās, but is not taken advantage of.

Itinerary, 11th day, November 19.

Course S.S.W. 16 miles, through a narrow, deep valley ; lake on right three miles long ; on it four birds like swans, white bodies and necks, red feathers on the side, wings tipped with black, called by the Moors *El Boch 'Hhamar*, a variety (pink) of the *anas casarca*. Succession of hills and dales ; one mile and a

half from sea ; soil light ; sandstone basis ; to the east the extensive forest of

Mamōra, said to cover eighty miles of country ; on what authority is doubtful ; the only traveller who appears to have passed through this forest describes it ‘ as a wood of holm oak, almonds, lentisks, and large willows, through which he journeyed in a few hours.*’ Lions and wild boars, of which we saw traces, are its inhabitants. Passing under an aqueduct extending one mile south-east, its arches thirty feet high, eight wide, four thick—of masonry and of antiquity, though it is difficult to say of what construction—but in good repair ; enter the town of

Slā, or Sallée, once the terror of the seas, so renowned for its rovers, whose daring exploits reached even to our own coasts of Christendom ; whose city and port were a constant scene of riot, and bustle, and activity—now, ruined, still, and lifeless : such are the fruits of ignorance, despotism, and Mohammedanism. The present town, built on a sandy point, extending to the sea, forming the north-eastern bank of the river, is about half a mile in length by a quarter in breadth, surrounded by walls thirty feet high, and square towers every fifty paces. Its defences, a long battery of twenty guns, facing the sea, a round fort at entrance of the river, and a gun or two on the gates. The mosques, arches, and fountains in the city, as we rode through it, showed traces of beautiful sculpture, and of great antiquity ; streets narrow, and houses sombre, like all Moorish towns. Population about ten thousand, of which five hundred may be Jews ; with apparently little or no occupation. The river

Bu Regreb, formed by the junction of the *Weroo* and *Bu Regreb*, is here about five hundred yards broad, when full. The bar, about one-eighth of a mile from entrance, runs almost across in a west-south-west direction, with three or four feet on it at low water, leaving a channel at each end ; the Moors use the eastern ; rise of tide nine or ten feet ; inside, the harbour is quite sheltered, with water for a frigate. The imperial dockyard is here ; a corvette on the stocks, destined to be launched when the freshes from the mountains, in the spring, force a passage over the bar. Several ferry-boats, three or four small traders, an Austrian prize, and a few fishing-boats, give an animation to this river quite uncommon to the Moors. The town of

Rabātt, standing on the south-western side of the river, fifty or sixty feet above its level, on banks of crumbling sand-stone. As seen from the opposite shore, the grouping of minarets, palm-trees, ruined walls, and old mosques, crowned by its venerable and battlemented *kassbah*, across a broad full river, is very picturesque. A curtain of five hundred yards, facing the sea, flanked by two cir-

* Ali Bey.

cular batteries of twelve guns each, about as many more in the *kussbah*, or citadel, and a small battery overlooking the river at the south-western end of the town, form its sea defences. On the land side a strong wall, thirty feet high; square towers every fifty paces—of tapia-work, and angles of masouri. The town extends three-quarters of a mile in length, by one-third in breadth, and walled orchards of about two hundred acres reach along the banks of the river towards the ruined mosque, and lofty tower, one hundred and fifty feet in height, called by the Moors

Smā Hassan—the most conspicuous object, standing two hundred and twenty feet above the level of the river, and the first by which this coast would be recognised in approaching from sea, as it must be visible from the deck of a frigate six or seven leagues. We counted here ten mosques, besides the mausoleum of a sultan, and that of the hero of Moorish Africa, the mighty *Al Mansor*. The main street of the town, which runs parallel to the river, contains the principal shops, not very attractive; the markets abundantly supplied with vegetables and fruit; orange orchards, vineyards, and cotton plantations, are extensive; the fruits excellent, though grown on a light sandy soil. Moorish population may be eighteen thousand; Jews, three thousand: the former appear wealthy; the latter, if so, dare not show it. The Jewesses certainly the prettiest in the empire. *Millāh*, or Jews' quarter, filthily dirty, but they are the chief artisans. One mile south-east of the town are the ruins of the Roman or Carthaginian town,

Shella. We were shown Roman coins said to have been dug up there. *Sala* was a place of note formerly, and, according to D'Anville, the limit of the Roman station on this coast. The river, now called *Bu Regreb*, was the boundary of the ancient Mauritania.

Itinerary, 12th and 13th days, November 23, 24.

Leaving *Rabātt*, travelled 28 miles in a W.S.W. direction; the first eleven miles by the side of a well constructed aqueduct, partly above, partly under ground, which abundantly supplies the town with excellent water; soil light and sandy; a palmetto desert. At seven miles passed the ruined village and high tower of

Tomara, distant about three miles from coast. In second day's journey crossed seven streams running into the sea, distant about one mile on our right; soil light and sandy; palmetto and various bulbous roots; traces of wild boar; last few miles well wooded with wild olive, *droo*, palm, &c.; two Arab villages, and two tombs passed to-day; encamped under the walls of the deserted town of

El Mansorīa, a square of one hundred and fifty paces, enclosing an Arab village; the tower of the mosque (eighty feet) stands one

hundred and eighty feet above the sea, from which it is distant a short mile, and would be visible six leagues from the deck of a frigate. Coast rocky and iron bound.

Itinerary, 14th day, November 25.

Course S.W. by W. 15 miles, through an undulating country, covered with a forest of underwood, as yesterday, and on our return in the spring, the ground enamelled with flowers as a carpet; soil, light sand and gravel; basis, clay slate; dip, 45° east, as observed on the banks of two streamlets crossed to-day; sea distant three-quarters of a mile; passed two Arab villages—two saints' tombs. At six miles from *El Mansoria*, stands the almost deserted town of

Fidallah, situated on the limit of a fine corn plain, at three quarters of a mile from the sea, intended as a magazine for grain before Mogador was built; a walled square, of about two hundred and fifty paces, now encloses a respectable mosque, the ruins of European merchants' houses, and an Arab encampment; possibly three hundred inhabitants, Moors, Arabs, and Jews; half a mile to the westward, a rocky peninsular point, projecting one mile east-north-east, forms a sandy bay a mile and a half deep, offering a fair and well-sheltered roadstead to small merchant ships.

Itinerary, 15th day, November 26.

W.S.W. 16 miles along the coast; sea distant three-quarters of a mile; soil sandy; basis, sand-stone; no wood; herds of cattle; passed two tombs, one Arab encampment, two springs, one streamlet to-day.

Dar el Beida, a small walled town of half a mile square, standing on the beach, and on a point projecting north-north-east half a mile, forming a small bay three quarters of a mile deep; a roadstead well sheltered from westerly winds, and protected by a few pieces of cannon. This town also was built for the exportation of corn, and was long in possession of the Portuguese; the towers of three mosques, and several good European-built houses, showed themselves over the battlements of the walls; many palm trees and numerous gardens surround the town; water in abundance. Population probably seven hundred, including Jews.

Itinerary, 16th and 17th days, November 27, 28.

S.W. by W. 33 miles, through a varied undulating country; soil improving; fine loam; many gardens; a small forest of *droo*, a beautiful evergreen tree, much resembling the *arbutus* in leaf and blossom, bearing a brown berry, which affords a coarse kind of oil for burning; signs of cultivation; many ploughs at work; large plantations of 'hhenna *', the first seen on

* *Lawsonia inermis*.

the journey ; several springs ; herds of cattle ; flocks of sheep and goats ; passed eleven Arab camps—six tombs of saints. From rising ground gained sight of the windings of the river

Oom-erbeigh (mother of herbage), which, rising in the Atlas, separating the provinces of *Fas* and *Tedla*, forming the boundary between *Temsena* and *Ducaila*, and flowing through deep banks of sandy clay ; about one hundred and fifty paces wide here ; falls into the sea ; on its south-western bank, one mile and a half from its outlet, stands the town

Azamor.—Its tapia-built walls, a mile and a half in circuit, and crumbling to ruin, are, as it were, machicolated with storks' nests ; its defence is a few guns pointed seawards ; but a bar of sand across the mouth of the river, almost dry at low water, is its safeguard from any attack except by boats ;—and a barrier to trade. The town is dull and lifeless ; streets narrow and filthily dirty ; provisions, fish, vegetables, and fruit, abundant and good. Population may be three thousand, including Jews. At the south-eastern angle of the town is a suburb containing a mosque and a sanctuary. The country around open ; no wood ; but well cultivated, and many gardens ; soil, fine loam ; large plantations of 'hhenna, a field of which, of about six or eight acres, the *Käid* told us was worth to him about 100*l.* annually, producing, by irrigation, three crops a year.

Itinerary, 18th day, December 1.

Leaving Azamor, ascended through a hilly country ; soil, light loam ; signs of greater cultivation, gardens, &c. ; several wells and springs ; passed ten Arab camps, two villages, with trees, &c., at seven miles ; a fine view of the town, bearing *west* four miles, called

*Mazagān**, situated on a peninsular point projecting north about one mile, and forming the western limit of a sandy bay about one mile and a half, affording a good roadstead for small vessels, the point of *Azamor* sheltering it to the north-east. The town well built by the Portuguese, who abandoned it in 1770, and respectably defended towards the sea by several redoubts. It enjoys some little commerce, excellent water, and good supplies. Population, two thousand. About three miles to the south-westward of this place, on the sea-coast, are the ruins called

Tett (signifying, in Arabic, *Titus*). It has been suggested that it might have been founded by the Carthaginians ! Encamped in the valley at the back of the high land forming *Cape Blanco*.

* The various names of this town are worth remarking. In 1506, when first built, named by the Portuguese *Castillo Real* ; afterwards *Magazān* ; in 1507, by the Moors, owing to the vicinity of a saint's tomb, *Buriya* ; in 1769, when besieged by the sultan *Sidi Mohammed, Ma'edūma*, (*let it be destroyed*) ; and in 1770, when captured, by imperial proclamation, (*the New*) or *Ideida*. This may account for mistakes in nomenclature and position, which we see even in the best charts and maps.

Itinerary, 19th day, December 2.

Course S.W. by S. 16 miles ; road now quits the sea-coast, and assumes a more direct course towards the capital, across a series of elevated plains or table lands, stretching to the foot of Atlas, to which we ascend by three great steps. Enter the province of *Ducaila*, celebrated for its breed of horses, and its woollen manufactory, in the shape of sulhams, 'haicks, carpets, &c. ; soil of the plain, light loam, covered with stones, flint, &c. ; eight Arab camps ; five tombs ; several springs and wells ; much cultivation ; gardens ; fields of Indian corn ; a few scattered palm-trees, otherwise no wood ; ascended by a rocky road, hard sand-stone basis, about three hundred feet, on to an elevated plain, reaching to the horizon, except in the south-east quarter, where is a solitary hill, called *Gibbel 'Khaddar* (or green mountain), much resembling the 'lone Soracte,' rising in the Campagna di Roma.

Itinerary, 20th and 21st days, December 3, 4.

Course S.S.W. 14 miles, over an open plain, rather ascending ; soil, light loam, stony ; stunted palm ; palmetto ; a few flocks of sheep ; herds of cattle ; ten Arab encampments ; seven saints' tombs ;—from summit of plain caught first glimpse of

Atlas ;—At sunset, splendid view of the snowy peaks of the long looked for *Atlas*, which we now see in all their glory lighted up by the western sun ; an extensive plain in every direction, and apparently reaching to their feet ; the masses of snow before us are magnificent, but detached, as seen from this distance, upwards of a hundred miles ; the whole group bounding the arc of the horizon between south-east by south, and south by west ; the highest isolated peak south-south-east.

Itinerary, 22d and 23d days, December 5, 6.

S.E. by S. 30 miles ; still journeying over an extensive plain far as the eye can reach ; at times not a tree nor a building, except a solitary saint's tomb, to break the level. Seeing a horseman or tall camel on the horizon is like meeting a ship at sea ; first his head, then his body, then the animal on which he rides, is visible. Soil of the plain, light loam, occasionally sandy and gravelly ; palmetto and colocynth occurring in swampy spots ; fine grass occasionally ; patches of Guinea corn ; gardens ; twelve tombs ; twenty Arab encampments ; the tents now take the form of bee-hives, and are usually rudely thatched with straw ; passed a large market to-day, held in the midst of the great plain ; camels, horses, mules, asses, rude implements of husbandry, coarse woollen manufactures, corn, vegetables, fruit, dates, almonds, 'henna, &c., exposed for sale ; snowy peaks of *Atlas* beautifully silvered by the meridian sun ; encamped at the foot of a semi-circular range of small hills, varying from one hundred to one

hundred and fifty feet; gravel; on summit of one of the highest stands the ruin of a building named

Gherando, either a fort or watch-tower; circular, and apparently fifty feet high by twenty in diameter; none of the peasantry could say when or why constructed. From camp, eighteen saints' tombs in sight*.

Itinerary, 24th and 25th days, December 7, 8.

Course S.E. by S. 40 miles; road gradually ascends, about two hundred feet, through a broken hilly country of clay-slate, on to the plain of *Smira*, extending about twelve miles; then again ascends two hundred feet on to a second plain, seventeen miles in extent, named

Peira—basis of clay-slate; soil at times sandy, then decomposed slate; many stones; fragments of quartz; flints; much agate embedded in crystallized quartz; some very beautiful specimens; and covered with palmetto and coarse herbage; with a thorny tree, about twenty feet high, bearing a dark yellow berry, called *sidra nebach*, the *rhamnus infectorius*, (or yellow-berried buckthorn.) Encamped at the foot of a range of hills, varying from five to twelve hundred feet in height; schistose, with veins of quartz; strata in a north by east and south by west direction, dip 75°; and forming the northern boundary of the plain of Marocco; during our ride across these two plains, not a hut to be seen except at our night's encampment, and but one spring of water; herds of gazelles and wild boar.

Itinerary, 26th day, December 9.

Course S. by E. 12 miles; ascending about two hundred feet, between hills of micaceous schist; torrent bed fringed with Spanish broom, *sidra nebach*, and *acacia*; road stony, boulders of iron, stone, &c., and flints. On debouching from this rocky defile, the imperial city, with its buildings, its mosques, its minarets, and lofty tower, in a large plain, in the midst of a forest of palms, backed by the eternal snows of Atlas, rising to the height of eleven thousand feet, and brought forward in striking relief from the deep blue sky behind them—burst on our view. While we gazed with delight on this beautiful prospect, our Moorish leader, on first sight of *Marocco*, halted his troops, and one and all offered up prayers for the health of the sultan their master, and thanksgiving for the happy termination of their journey; encamped for the night under the shade of the palm trees; the contrast striking between this emblem of tropical and burning

* The clear-sighted people of this empire, it is believed, do not wish their country to be surveyed. They should not canonize so many of their idiots, or build so many saints' tombs; for did an observer wish to select stations for a trigonometrical survey of their plains, nothing could have been better placed than these sanctuaries, and which it is a point of their religion to keep in good preservation.

climes, and the snowy mountains, now rising almost immediately above our heads ; at sunset many of the peaks still lighted up, while all below lies buried in one mass of shadow.

Itinerary, 27th day, December 10.

Cross the river *Tensift*, at *Al Kantra*, a bridge of thirty pointed arches, and continue over a perfectly level plain, through a forest of palms, towards the city ; accompanied by the sultan's guards, all in white clothing, and the whole of the troops and male population of *Marocco*, not less than forty thousand persons ; spirited charging of cavalry ; firing of guns and crackers ; barbarous music ; incessant shouting ; bawling, and piercing screams of women ! in short, suffice it to say, every honour that could be offered, attended us as we advanced.—At high noon—at the moment the white flags were waving from the summits of the minarets, and the loud and deep voice of the *Mueddin* was heard from the lofty towers of the mosques, calling on the faithful Musselims to acknowledge that ‘there is no God but one God, and that Mohammed is his Prophet’—did we unbelieving Nazarenes enter the imperial city of *Marocco*. An abrupt turn brought us to our quarters, in a vast garden, ‘at once silent, shaded, verdant, and cool,’ and where we were at full liberty to take our repose.

M A R O C C O .

The plain of *Marocco* extends in an east and west direction, between a low range of schistose hills to the north, and the lofty *Atlas* to the south, about twenty-five miles wide, and apparently a dead flat to the foot of the mountains, which rise abruptly to the height of eleven thousand feet, their peaks covered with snow. This plain, which has no limit as far as the eye can reach east or west, lying about fifteen hundred feet above the level of the sea, the soil of a light sandy loam, with numerous rolled stones of crystallized quartz, agates, flints, porphyry, a green stone, cornelions, &c. &c., is, generally speaking, covered with low brushwood of the thorny plant called *sidra nebach*, or buckthorn ; the banks of the streamlets fringed with oleanders in great beauty, while to the north of the city is a forest of palm-trees and olives.

The river

Tensift, springing from the northern hills about forty miles eastward of the city, flows along at their base about four miles north of *Marocco*, and joined by several streamlets from *Atlas*, reaches the Atlantic fifteen miles south of *Saffy*, nearly one hundred miles distant ; the river is shallow, but rapid ; the channel here about three hundred yards wide, but fordable, except in the spring, in almost all places. The

City of Marocco, lying on the northern side of this rich plain, is surrounded by a strongly built, machicolated wall of tapia-work,

thirty feet high*, with foundations of masonry ; square towers about every fifty paces ; the whole nearly six miles in circuit, entered by eleven strong double gates. But this vast area is far from being generally covered with buildings ; it comprises large gardens, and open spaces from twenty to thirty acres in extent ; the Sultan's

Palace stands on the south of the city, facing the Atlas, outside the main wall ; but enclosed within walls of equal strength, is a large space of about fifteen hundred yards long, by six hundred wide, divided into squares laid out in gardens, round which are detached pavilions, forming the imperial residence ; the floors of the rooms tessellated with various coloured tiles ; otherwise quite plain ; a mat, a small carpet at one end, and some cushions, form the furniture.

Mosques within the city are nineteen, two emdrasas or colleges, and one hospital ; the principal of these called

El Koutubia, stands alone in a deserted space of twenty or thirty acres, conspicuous above all by its lofty square tower, rising to the height of two hundred and twenty feet, without diminishing, thus producing a striking and singular effect—divided into seven stories, and its height apparently about seven times its diameter ; this tower is similar to, and said to be coeval with the *Sma Hassān* at *Rabātt*, and the *Giralda* at Seville, built towards the end of the twelfth century. (Only be it remembered that the present superstructure of the tower of Seville is Saracenic, and raised by Christians on the Moorish foundations in the thirteenth century.) On the summit of the tower is a small turret in the shape of a lantern, whence it derives the name *Sma el Fanār*. The body of the mosque, though large, is an irregular building, and insignificant when contrasted with the lofty tower by which it is surmounted.

Beni Yūsef, next in height, and in age, though modernized and well painted, has a college of *tālebs* (or seekers, i. e. students) attached to it ; a saint's tomb stands opposite its south door, formed of three arches, surmounted by a cupola, delicately wrought with rich Saracenic tracery.

El Moazīn, said to be the most ancient, is very large, and has several courts opening into each other ; the Moorish horseshoe arches highly sculptured, intersecting in various directions, have a rich effect ; attached to this mosque are gates, said to be those of Seville, the triumph of the mighty *Al Mansōr*.

Bel Abbās, patron saint of the city ; mausoleum ; sanctuary ; mosque, and hospital containing one thousand five hundred patients. Its style of building, a pavilion, surmounted by a cupola covered with green and varnished tiles.

* See Plan of City.

Emdrasa dēl Emshīa.—College and mosque, stands near the south wall of the city ; here are the sepulchres of the sultans of the *Molūc Saïdia* dynasty, once adorned with statues and busts, now, thanks to the bigotry of a rigid *Moslem* emperor, entirely effaced.

Fountains.—Several of these have traces of delicate sculpture, especially one near the mosque *El Moazin*, called

Shrub-ū-Shoof, ('drink and admire,') which has a cornice of white marble, shewing evident remains of former beauty.

Gates.—Of the eleven gates of the city, now open, that entering the palace, called

Bēb e'Rōm, is by far the best specimen of architecture to be seen ; a Moorish horseshoe arch, (which, however false in principle, is not unpleasing to the eye,) richly sculptured in Arabesque work, in imitation of shoe-nails, &c. &c. : its name would imply that it was the work of Europeans, or—of Romans ! the same word being used for both.

Streets of Marocco are narrow and irregular, seldom wider than lanes in Europe, in many cases connected across by arches and gates, possibly as a defence in case of attack ; several open spaces, which cannot be called squares, used as market-places, &c. ; the

Houses, usually one story, flat roof and terrace, the side towards the street plain and whitewashed ; here and there a narrow opening, not deserving the name of a window, none of which are glazed ; but the interior disposition is much like the Spanish ; rooms opening into a court, sometimes surrounded with arcades, and a fountain in the centre ; many of the doors of cypress-wood, highly sculptured ; the rooms long and narrow, owing probably to their want of timber ; no windows, no fires, no furniture, except a mat and a cushion or two.

Al Kaisseria, or Bazaar, is a long range of shops, or rather stalls, covered in from the weather, and divided into compartments ; exposed for sale, were silk scarfs, shawls, and handkerchiefs, from *Fas* ; *Sulhams*, *haicks*, *gellabias*, and carpets, from *Duaila* ; cloth, linen, hardware, tea and sugar, from London ! almonds, raisins, 'hhenna, and *al kohol*, from *Suse* ; very fine corn, caravances, beans, &c., from *Shragna* ; very luscious *dates*, from *Tafilet* ; and abundance of boots, slippers, saddles, coarse pottery, mats, cord, &c., of domestic manufacture ; and embroidery in gold and silver, in which they particularly excel.

Markets.—There are two or three ; the principal is called

Sōk el Khamise, held near the north gate of the city, and, as its name denotes, on a Thursday ; well supplied with home manufactures ; outside the gate is the market for camels, horses, mules, horned cattle, sheep, &c., but no great show ; not much bustle except in the sale of horses, which is by auction—the auctioneer

pacing the animal rapidly to and fro, and vociferating the last price named.

Tan-yard.—Visited, and thoroughly examined a large one, said to employ one thousand five hundred persons! Great want of order and arrangement; the process of dyeing was gone through for our satisfaction, and, in spite of dirt and slovenliness, a bright yellow colour was produced which is considered inimitable in Europe. The

Millâh, or Jews' quarter, is a walled enclosure of about a mile and a half in circuit, at the south-eastern angle of the city; populous but filthily dirty; all the Jews pay a capitation tax to the sultan, and are treated with the greatest contempt; we were offered for sale by the *Scheik* of the Jews and a *Rabbi*, the only copy of the New Testament in Hebrew and Spanish, the last relic of the Spanish hospicio that once existed within these walls. Mohammedanism, with its withering influence, reigns undisturbed. Population cannot exceed one hundred thousand, perhaps not above eighty thousand, including five thousand Jews; the women rarely showing themselves in the streets makes it difficult to estimate, but here are traces of a much greater population. The dreadful plague, and more dreadful famine, that visited this country a few years since, have committed fearful ravages; not half the space within the gates is now inhabited; ruined walls and tenantless houses meet one at every turn; nothing flourishes but vegetation, which, even in the months of December and January, is ripe and luxuriant—its springing freshness forming a striking contrast to the mouldering walls around.

Aqueducts.—Extensive under-ground aqueducts surround the town; some ten or twelve feet deep, but chiefly in ruins; they reach across the plain to the foot of Atlas, in many cases twenty miles in extent; evident signs of a more numerous population, and far greater cultivation of the arts.

Cemeteries.—Several large cemeteries outside the walls, both to the north and south, but especially to the east of the city is one upwards of a hundred acres in extent; war, plague, and famine, have thickly tenanted them.

Gardens.—The sultan has three large gardens, of about fifteen acres in extent, within the city, and two of about twenty acres each two miles distant from the walls, through all which we rode.

Jenân en Nil, so called from the abundance of water with which it is supplied, certainly not on account of containing the productions of the country of the Nile, as it has no exotics whatever.*

Jenân el Afia (or prosperity,) destined to the use of the sultanas.

Jenân el 'Hassîra, remarkable for its fine grapes, about two miles east of the city.

* See Jackson's *Marocco*.

Semelalia, about two miles to the north-west of the Duaila gate; fine olive plantations; and the residence of *Don Juan Badia* during his stay in this country in 1804.

The quarters allotted to the British mission during its residence of a month in Marocco was one of the sultan's gardens, at the south-west angle of the city, called

Sebt el Mahmōnia, covering an extent of fifteen acres, planted in the wilderness style, with every variety of fruit tree—olive, orange, pomegranate, citron, mulberry, walnut, peach, apple, pear, vine, &c.; with cedar, poplar, acacia, rose, myrtle, jasmin—forming a luxuriant and dense mass of foliage only broken by the solemn cypress and more stately palm, and through which nothing was to be seen but the snowy peaks of Atlas rising almost immediately above our heads, and the tall tower of the principal mosque distant about a quarter of a mile. Nought but the playfulness of gazelles, and the abundant trickling of water in every direction, to break the stillness of this delightful spot, combining everything to be desired in a burning clime,—silence, shade, verdure, and fragrance. But, as a contrast to the bounded view of our garden, the terraced roof of our house commanded a view over the city, the extensive plain boundless to the east and west, and the whole *dahir*, or belt, of the Atlas, girding, as it were, the country from the south-west to the north-east with a band of snow; and few days passed during our stay in Marocco that we did not spend the hours of sunrise and sunset gazing on this striking and beautiful object*, noting its masses and peaks of snow, and deplored that this mighty range, combining, within one day's journey, every variety of climate, from the torrid to the frigid zone, and offering such a field to the naturalist, the geologist, and the botanist, should still remain unexplored, and present an impassable barrier to civilization.

Viewed from Marocco, the snowy range of Atlas bounds the horizon from east to south-west. At this season of the year, (January, 1830) the transition immediate from the wooded to the snowy zone;—the formation inclines more towards sharp ridges and points than to Alpine peaks. The highest of these points, visible from the city, bore south-south-east, distant twenty-seven miles; two other remarkable masses, forming sugar-loaves, south-east by east and south-east, called by the Moors *Glaoui*—a high ridge from south to south-east. It is remarkable that neither Moors nor Arabs have any distinguishing name for the *Atlas*. It is

* But description is not sufficient. Happily a very correct outline of Atlas, a panoramic view of the city of Marocco, with many other characteristic and spirited sketches of scenery in that country, were made during our journey by a friend and intelligent fellow-traveller, Mr. W. H. Smith, R. A., and which sketches, it is hoped, will soon be made public.

usually called *Djibbel Telj*, or snowy mountains, or takes the name of the province or district, as *Djibbel Tedla*; *Djibbel Misfywa*. The word *Atlas* is not known: whence is it derived? May it not be a Greek corruption of the Libyan or Berebber word, *Adrar*, or *Athraer*, signifying mountain?—Many of these heights were measured trigonometrically, on a base of seventeen miles, the highest of which, named by the Moors

Miltsin, stands in the district called *Misfywa*, in latitude $31^{\circ} 12' N.$, 27 miles S., 20° E. of Marocco, and was found to be eleven thousand four hundred feet above the level of the sea. This is below the limit of perpetual snow assigned by Humboldt (Personal Narr., vol. i., p. 261); yet but once in twenty years had these summits been seen free from snow.

It is more than probable that these are not the highest summits of the *Atlas* range, which will possibly be found in the province of *Tedla*, about the source of the two great rivers *Oom-erbegh* and *Mulwia*, which, from the best information, appear to spring from opposite sides of the same mountain; but this is conjecture. Till measured in 1830, the height of no snowy peak of *Atlas* was ever ascertained—at least none such is on record—but there is on record a conjecture hazarded, as to their height, by Mr. Jackson, and proved, by quotations from Asiatic Transactions, &c., to be correct. Jackson's statement is—‘that these mountains, which lie south-east of Marocco, are seen at sea twenty miles to the westward of Mogadore, and therefore at a distance of two hundred and forty-five miles, and consequently must have an elevation of twenty-nine thousand six hundred and ten feet*.’ That these peaks might be visible from Mogadore, from which they bear *east by south* a hundred and twenty miles, is very possible; but it so happens that the highest peak visible from Mogadore bears *south-east* (true), and consequently must be part of the range clearly in sight to the south-west of Marocco, and distant only seventy miles from that place, and certainly inferior in height to those peaks south-east of this city. Thus does a distance of two hundred and forty-five miles dwindle to seventy, and the unassuming but actual height of eleven thousand four hundred feet must take the place of the astounding elevation of twenty-nine thousand six hundred and ten feet†!

On reference to the Astronomical Journal, there appear upwards of one hundred sights for determining the longitude of the city. Distances between moon and sun; moon, and stars east

* Jackson's Shabeeny, pp. 92, 3, and 4. London, 1820.

† This is noticed to correct mistakes, not from a desire of criticising Mr. Jackson's work, which is unquestionably the most useful on this country. He spoke the Occidental Arabic, or Mo'greb, fluently, and without which no intimate knowledge can be gained, independently of the marked contempt evinced by the Moors and Arabs for those who do not speak their language.

and west of her ; and altitudes of the moon when in the prime vertical,—the mean of the results of which give the longitude of our garden at the south-west angle of the city :—

Long. $7^{\circ} 36'$ W. of Greenwich.

Lat. $31^{\circ} 37' 20''$ N. Mean of about 20 mer. alts. of the sun.

Var. $20\frac{1}{2}^{\circ}$ westerly,—by numerous observations by Schmalcalder's compass.

The remarkable stillness of the air in this plain must be noticed. Morning and evening generally a dead calm ; light winds during the day ; little or no rain, and this in the months of December and January ; atmosphere usually clear.

Mean height of bar. at Marocco,	Inches.
observed by two bars. reduced to mean temp. of 50° Fahr.	28.410
Dec. and Jan. 1830	Showing an elevation of 1450 ft. above the level of the sea*.
Greatest height, Dec. 25, 1829	28.590
Least do. Dec. 20	28.250
Mean temp. of Fahrenheit's therm. in the shade, between 6 A.M. and 6 P.M.	$56\frac{1}{2}^{\circ}$
Highest, Dec. 21, 1829	64° , wind S.W.
Lowest, Dec. 27	40° at daylight, N.E.
Highest in sun, Dec. 18	118° at 2 P.M., calm†.

The inhabitants of this country may be divided into six classes — *Moors, Arabs, Shellûhs, Berêbers, Jews, and Negroes.*

The *Moors*, degenerate race of noble ancestors, are the descendants of those who were driven out of Spain when the conquest of Granada by Ferdinand and Isabella, and the flight of Boabdil el Chico, put an end to the Moorish dynasty in that country ; these chiefly inhabit the towns, fill the high offices under government, and form the military ; their language, the Mogreb, or occidental Arabic, intermixed with Spanish.

The *Arabs*, originally from the desert, overspread the plains, living in tents usually pitched in a circle, hence called *Douars*, and following a pastoral life. When the soil is unproductive, the herbage scanty, or their tents so full of fleas and vermin, that they can no longer rest in quiet, they decamp and seek another spot, a spring of water, or a saint's tomb generally influencing the selection. The *Arabs* are hospitable, and when they promise may be trusted ; yet, otherwise, they are great thieves. They are a hardy race, slightly made, and under the middle size ; the girls, when young,

* Calculated by the table of M. Oltmanns, inserted in the ‘Annuaire’ of 1830.

† In Mr. Washington's MS. a list of ascertained geographical positions within the empire of Marocco, with the authorities on which they respectively rest, is here introduced, for which see map.

are pretty; the women frightfully ugly, owing to exposure and hard work, as all domestic duties (a wide range in this country) fall upon them. Their language is the *Koreish*, or Arabic of the *Korān*, though much corrupted.

Berēbers and *Shellūhs* inhabit the mountain range of Atlas; the former the north-eastern part, as far as the province of Tedla, the latter thence to the south-west: they live chiefly in villages of houses built of stones and mud, with slate roofs, occasionally in tents, and even in caves: their chief occupation is that of huntsmen, yet they cultivate the ground and rear many bees. Their mode of life renders them more robust and active than their neighbours of the plains; they are probably the aborigines of this country, direct descendants of Ham, and have been driven to the mountains by the incursions of the Arabs and Moors; their language has no resemblance to the Arabic, though many words of that language are in common use among the natives. It has long been a disputed point whether the *Shellūh* and *Berēber* are the same language: Jackson, who lived many years at Mogadore and Santa Cruz, declares they are not, and gives a specimen of eighteen words in the two languages, to show there is not the smallest resemblance. Of these eighteen words I have found five, in two different *Berēber* vocabularies, to be the same as in the *Shellūh* dialect. During our visit to the Atlas, we wrote down from the mouth of a native *Shellūh*, who had passed all his life there, some hundred words of that idiom. On our return home, finding that the British and Foreign Bible Society had lately acquired a translation of part of the Scriptures into one of the dialects of northern Africa, I applied to them, who most liberally showed me their vocabulary, which proved to be compiled from a manuscript in the *Berēber* language; upon comparing this with my own made among the *Shellūhs*, I found twenty words, in common use, exactly alike, a catalogue of which I subjoin:—

<i>English.</i>	<i>Arabic.</i>	<i>Berēber.*</i>	<i>Shellūh.</i>
Bread	El Khobs	Aghroum	Aghroom
Camel	Jimmel	Araam	Arume
Call (to)	Tsāta	Kerar (imp)	Ir-kerah
Dates	Tamar	Tene Icayn	Teene Icayn
Dinner	El-iftor	Imquilli	Imkelli
Eat (to)	Akal	En-nitch	Ai-nish

* My authorities for the *Berēber*, are 'Hodgson on the Berebber Language,' published in the American Philosophical Transactions, vol. iv., and another compiled by a Frenchman, long resident at Algiers, I believe M. Venture. See Appendix to Langlès' French Translation of Hornemann's Travels.

When these papers were read before the Society, it was asserted that these languages were not alike; in the conversation that arose after the reading was finished a contrary opinion was expressed, and it was intimated that Mr. Barrow (who is of the highest authority in any point connected with Africa) thought differently, upon which further inquiry was made—the result is given above.

<i>English.</i>	<i>Arabic.</i>	<i>Berēber.</i>	<i>Shellūh.</i>
Eyes	Ayün	Allen	Alen
Feet	Rijlain	Etarran	Idarn
Give me	Ara	Efikie	Fikiwie
Honey	Asel	Tament	Tamint
Man	Rajel	Ergħaz	Argaz
Mountain	Jebel	Addrar	Adderar
Morning	S'bagħi	Zik	Zik
Nose	Anf	Thinżarth	Tinzhah
Slave	El abd	Isimgham	Issemg'h
Sultan	Sultani	Aghoullid	Aglid
To-morrow	Elgad	Ezikkah	Azgah
Water	Elma	Aman	Aman
Village	Dshar	Theddert	Thedderth
Woman	Murrah	Temthout	Tamtoot
Year	Sanat	Esougas	Acsouga

These two languages cannot be very dissimilar, in fact I have little doubt that they are dialects of the same ; further examination is necessary, and a knowledge of the circumstances under which the translation was formed ; but if, as I strongly suspect to be the case, a vocabulary derived from a native of one of the *Kabyles* or clans, which inhabit Atlas south-east of Algiers, and that from a native of the mountains south of Marocco, prove to be the same, we shall have obtained a key to a language spoken throughout the mighty range of Atlas, and extending from *Baheereh* on the banks of the Nile, to Cape Noon on the Atlantic Ocean, a distance of more than two thousand miles ; nay more, there is every reason to believe that the Berēber is the native idiom of all northern Africa ; it is the language of the Mozabies ; the Wadrēgans ; the Wurgelans ; the Tuaryks ; and Berēber words may be traced on the confines of Egypt and Abyssinia.

Jews are in this country, as elsewhere, a living proof of the literal fulfilment of that prophecy delivered more than three thousand years ago,—‘ Lo, the people shall dwell alone, and shall not be reckoned among the nations,’—Numbers xxiii. 9 ; and although ignorant of the existence of such a command, the Moors have strictly and literally complied with it, obliging them to live in a particular quarter of their cities. The Jews are a very numerous and serviceable body ; they are the chief mechanics, interpreters, &c., and the medium through which all commercial business is carried on with Europeans ; they are also obliged to submit to the most menial offices, as servants, porters, scavengers, &c. Despised and insulted by the Moors, whom they cheat on all occasions, they have no redress, but must submit to be abused, struck, nay, to be stoned by a mussulman child, against whom, if a Jew lift up his hand, he will infallibly lose it ; if passing a mosque, he must take off his slippers ; if he meet any of the emperor’s household, even the old

negresses, the late imperial concubines, the Jew must doff his slippers, and stand close to the wall till they pass; to such a state of degradation are the people chosen of God, the descendants of Abraham, brought in this country. Yet such persons are our official interpreters, nay more, our consular agents; as for repeating a message on terms of equality to an emperor, or a spirited remonstrance if necessary, they dare not for their lives. The

Negroes, who are not very numerous, are slaves, and here, as in more civilized countries, are articles of traffic; yet they sometimes reach stations of great importance, and gain their freedom; and thus even in benighted, barbarian Africa, that foulest stain on a nation's fame—is not half so black as in enlightened, Christian Europe:—the negro's character stands high for fidelity, the sultan's body-guard, the only standing army, is chiefly composed of these: it is now not above five thousand strong; but under Muley Ishmael is said to have reached one hundred thousand. The

Government of this country is absolutely despotic; the sultan is the head of the church and state, which are inseparable; Mohammedanism is their

Religion, and some of its bigoted tenets are rigidly enforced by the present possessor of the throne; in their religious duties, such as prescribed prayers, ablutions, &c., the Moors are very strict, even on a journey; they look on Christians as of no religion, and not without reason, since at Tangier, the residence of the European and American corps diplomatique, comprising ten or twelve consuls, with their attachés and dependants, there is but one Roman Catholic priest (Spanish it is believed); the six Protestant representatives, and their families, have not even the shadow of a minister of religion. Their

Laws, the will of a despot, who in the capital administers justice in person; in the provinces the *kalifa* or *bashaw* faithfully copies the despotism of his imperial master; yet judgment is generally correct, and always prompt; the ruling principle appears to be—keep the people poor, and they will not rebel. The

Revenue is derived from taxes paid in kind, one-tenth of corn, and one-twentieth of cattle; a capitation-tax on all Jews, and fines on districts where crimes have been committed; but the revenue is uncertain, nay, often must be levied by force from some of the Arab tribes; the whole may amount to a million sterling. The

Military are a sort of militia called out when required; they receive no pay, but are furnished with a horse, and, when those of the provinces visit the capital, with a trifling present. The only standing army is the sultan's body-guard, before mentioned; all the soldiers carry long muskets, which they use with great dexterity, firing at full gallop; they are hardy, sleeping usually on the ground without any extra covering, even in cold wet nights; but they are

not formidable, as they have no idea of the advantage of moving in masses; if their first charge is not decisive they must be easily routed; many of them are good marksmen; the management of artillery in the field is beyond their comprehension. The

Education of the youth is confined to learning the *Korān*, which they are taught by rote in the schools, and the management of a horse and fire-arms.

Music is almost unknown; a rude pipe and more barbarous drum are in use, but after listening a long time no pretensions to harmony could be discovered, except among the *Shellāh* mountaineers, whose songs were plaintive and pleasing.

The Moors are generally a fine looking race of men, of the middle stature, though at first sight their loose flowing dress gives them the appearance of large men; after middle age they become corpulent, both men and women, owing to their inactive life. They have usually good teeth; complexion of all shades, owing to their intercourse with the negroes, and we remarked the darker the colour generally the finer men, and more determined characters; the women, who are pretty when young, blacken their eye-lashes and eye-brows with *al kahol*, (lead ore,) and stain the tips of their fingers (as do also some of the men, the fops of this country it is presumed) with *'hhenna*, which is far from adding to their beauty, being of a deep orange colour. The

Dress of the Moors is picturesque and graceful; a shirt, with large sleeves, and drawers of ample dimensions, of white linen, over which by many is worn a *kaftan*, with short sleeves, buttoned to the shape, of bright yellow, or light blue cloth; a many-coloured silk sash round the waist, over this a white

Haïck, a long light woollen, cotton, or silk mantle, worn as the Roman toga, and at times a sort of cloak, with a hood, called a

Sulhām, of blue, yet more generally of white casimere; a red cap, round which is wound some white muslin so as to form a turban, and slippers or boots of *yellow* Marocco leather; the *haïck* is worn by women as well as men, often the only garment, and at times so fine as to be transparent; the women always wear *red* slippers, and neither men nor women wear stockings. A

Jellabīa is a coarse serviceable garment, made of worsted, and worn by the poorer people, and cannot be better represented than by making a hole in the bottom of a sack for the head, and cutting the lower corners off for arm-holes.

The Jews are not allowed to wear colours; a black *bornoos*, black cap, and black slippers, mark their degradation.

The usual food throughout the country is a dish called *Kūscāsū*, composed of mutton or fowls stewed with a few vegetables, served up in a large flat earthenware pan, filled to overflowing with granulated paste, forming a savoury and nutritious dish; this is

placed on the ground, round which sit cross-legged half-a-dozen persons ; chairs, tables, knives, forks, spoons, and plates, are superfluities unknown.

Coffee is not used. Tea very generally ; at all hours of the day it is presented to visitors, otherwise water is the only beverage.

The Moors do not smoke tobacco, but take a great deal of snuff ; they occasionally smoke the leaves of the *Hashîsha* (or hemp-plant), which appears to have much the soothing quality of opium, producing pleasing intoxication ; they also make a sort of confection of the seed of this plant, called *Kéef*, which has the same properties, and to the use of which they are much addicted.

The characteristics of the Moor are *idleness, apathy, pride, ignorance, and sensuality*—though living in the most deplorable state of ignorance they look with contempt on all others, terming them barbarians. Their *bigotry*, too, is excessive ; on our journey to Marocco a party of travellers that we met, after saluting the chief of our escort, said to him, ‘God preserve you from the contamination of the Kaffirs.’ On such occasions it is brought home to us with double force, how thankful should we Europeans be for the blessed light of Christianity. The sensuality of the Moors knows no bounds ; the laws of nature cannot restrain it ; the constant and often repeated application to the medical officer* attached to the mission was for stimulating drugs and cordials, even after their noxious qualities were pointed out ;—decrepid old men, with one foot in the grave, would have given half their fortune for a few hours of invigorated youth. The day is usually lounged away in idleness :—except for the military exercise of *Lab el Barôd* (literally playing powder), which consists in charging at full gallop, firing their guns, and stopping short, they seldom move from their lethargic state of apathy or drowsiness ; yet with these vices they are hospitable and possessed of great fortitude under misfortune ; ‘*Allah brâ*,’ ‘God made it so,’ is their support under all afflictions. The people are generally healthy and long lived ; the climate is unquestionably good, yet leprosy, ophthalmia, elephantiasis, hydrocele, and the venereal disease, are not uncommon ; their remedies are simple, their whole *materia medica* consisting in a few herbs ; but the dreadful scourge of this country, the plague, visits them nearly every twenty years, nor will they be induced to take any precautions against it.

Locusts also commit fearful ravages, occasionally devouring every green leaf, and leaving the ground over which they have passed absolutely barren. But the pride of the Moor is his

Horse, and often, indeed, it is an animal of great beauty ; has

* Mr. Williams, R.A., who, by his readiness to give advice and assistance to the natives on all occasions, kept them in good humour, and was enabled to obtain much information.

more stuff in him than the Andalusian jennet, probably owing to finer pasturage ; his action and shape also differ ; he does not raise his feet so high and advances more ; neither does he pace, but his usual step is a long walk ; nor slip in his quarters as the Spanish horse ; and is sure footed even when galloping over rough ground, as we often proved, hunting both wild boar and gazelles. The horses usually stand from fourteen to fifteen hands high, of every colour ; the most beautiful we remarked were chesnut and black, though the latter not common ; flowing mane and tails, which they never dock, but when young shave the tail, giving it an absurd appearance ; we measured the mane of a chesnut horse two feet and a half long, the tail sweeping the ground ; they seldom begin to ride them till four years old, nor do they ride the mares. In the interior of the country a good horse may sometimes be bought for one hundred Spanish dollars (twenty guineas), though with difficulty, and cannot be exported without an order from the emperor. On a journey the Barbary horse starts unfed and without water ; at the end of it is piqueted, unbridled, never unsaddled ; given as much water as he can drink, then barley and broken straw thrown down on the ground as far before him as he can reach by stretching out his neck : thus he rarely or never lies down, nor gets any sleep, yet is very spirited ; broken wind is rare ; they are often tender footed, and much shaken in the shoulders from the sudden stop, even at full gallop, which is constantly practised.

The audience with the sultan ;—the interchange of presents,—namely, our choicest works of art, such as chronometers and telescopes, for the fiercest beasts of nature, as tigers, hyænas, wolves,—the honours paid to the British mission, &c., fall not within the limits of a geographical sketch.—To proceed then to the Atlas.

January 7, 1830.

Bade adieu to our earthly paradise, the garden of *El Mahmōnā*, and journeyed across the plain, in a south-east direction, towards the *Atlas* ; soil, light, sandy loam, covered with rolled stones, and shrubs of the buckthorn and *tirnet* (resembling a gooseberry bush) ; several brooks of water, fringed with oleanders ; large plantations of olives, and ruined aqueducts crossing the plain in various directions. At sixteen miles, entered a valley of the *Atlas*, winding in a south direction, and following the course of a mountain torrent ; encamped for the night about two thousand four hundred feet above the level of the sea, and one thousand feet above the plain, commanding a splendid view of the city, the whole plain of Marocco, and the winding of the river, losing itself in the western horizon.

January 8.

At daylight, struck our tents, and set forward by a sharp ascent ; a brawling torrent in the valley below us ; its banks well wooded with olive, carooba*, walnut, acacia, cedar—the finest timber we had yet seen in the country, though not very large—and profusion of oleanders, stunted palms and rose-trees ; cheered and enlivened on our march by the shouts of the *Shellūh* huntsmen, re-echoed from rock to rock, in their endeavours to rouse the game ; each turn of the road disclosing fresh beauties in the valley, and a more boundless view of the plain and city of Marocco, its various mosques glittering in the morning sun ; basis of road, limestone ; soil, stiff clay ; stony ; boulders of limestone, sandstone, agate, flint, porphyry, gneiss, greenstone, and cornelian ; on brow of hill a range of limestone, fissures vertical, resembling a pile of gigantic tombstones, artificially placed ; passed several villages, perched in the most romantic situations, and inhabited by the free *Shellūhs*, the aborigines of these mountains.

After about three hours' ascent, the paths becoming narrow and intricate, we dismounted, left our Moorish escort, and put ourselves under the guidance of the *Shellūh* mountaineers—our only directions, pointing to the snowy peaks above our heads ; still ascending through a forest of *carooba*, olive, cedar, walnut, &c., overrun by wild vines, and the hop-plant in great luxuriance ; the scenery now becoming truly romantic ; abrupt, sterile, sand-stone mountains rising on each side of us ; the valley, not a quarter of a mile broad, through which rushed a brawling torrent five hundred feet below us, with the mountain path at times on the very brink of the precipice, while, before us, the snowy peaks appeared to recede as we climbed.

At noon, halted on the summit of a conical schistose hill, much decomposed at surface ; strata, east and west ; dip, 30° north-east, for a meridional observation, which gave our latitude $31^{\circ} 25\frac{1}{2}'$ N.,—the first ever perhaps taken in the Atlas. Our barometers here showed four thousand six hundred feet above the sea.

While making our observations we were surrounded by the native *Shellūhs*, who gazed with astonishment at our persons—our dress, particularly the gilt buttons ; they silently looked at the compass, the spy-glass, the barometer, as things far beyond their comprehension ; but when the quicksilver was poured out for an artificial horizon, they burst out into an exclamation of mingled astonishment and admiration, but no incivility, no rudeness : the contrast between the apathy of the Moors and the intelligence and curiosity of these primitive mountaineers, is striking ; they have an air of freedom about them unknown in the plains ; well-formed athletic men, not tall, not marked features, and light complexions.

* Al kharōb, i. e. *ceratonia siliqua*.

Goitre is unknown among them ; their language unintelligible to our interpreter, nor, generally speaking, did they understand Arabic. We conversed through the medium of the scheik of the Jews residing in this valley, and obtained correctly some hundred words of their language ; they dwell in cottages, built of rough stones and mud, with slightly sloping slate roofs ; their chief occupation is hunting, mix very little with the Arabs and Moors of the plain ; wherever their valley afforded a spot of ground it was *enclosed* and cultivated ; to us, they were hospitable and generous. In each village are many Jewish families, who have fled hither to avoid the degradation and taxation to which they are liable in the cities ; this valley contains ten villages, between four and five thousand inhabitants, one-fourth of which are Jews. Saltpetre is found here, and good gunpowder made. Copper-mines are said to have been worked at the upper end of the valley. How little is known of the central recesses of the Atlas ! Doubtless these valleys are all inhabited by a race of men probably as unmixed as any existing, of whom nothing is known, hardly even a few words of their language ! Here is a field for an inquiring mind.

But to proceed : for two more hours continued ascending ; ground covered with scanty herbage and stunted cedar ; reached the limit of snow, and continued some distance above, till finding the thawing snow giving way under our feet, and our guides declaring they would no longer accompany us, we reluctantly halted, and gazed on the highest peaks, still far beyond our reach, the space between us and them one mass of untrodden snow. Our barometer here showed an elevation of six thousand four hundred feet. The mountain on which we stood was of hard red sand-stone, strata, running in an east and west direction, dip 10° south ; we had thus only passed limestone*, micaceous schist, and sandstone, only transition and secondary rocks ; no traces of the primitive, except a boulder

* This formation, it is believed, is of secondary limestone, and probably is generally diffused throughout the skirts of the Atlas, forming the basis of all the lower ranges of the mountains to the height, perhaps, of three or four thousand feet. Of marble we saw nothing in our journey, except in some of the buildings in Morocco ; and, after much inquiry, could not decide, from the ignorance or apathy of the Moors, whence it came, but it is believed from Italy. The great columns and pillars of white marble yet existing in this country are between *Faz* and *Mekinez*, and described as the ruins of a triumphal arch and temple ; but of *rosso-antico* and other ancient marbles, which have been, historically, almost proved to have come from Mauritania, we could hear nothing.

Of the age of Atlas it would be difficult to form a conjecture ; but if the very plausible theory of M. Elie de Beaumont be correct, Atlas is of later date than the range of Erzgebirge in Saxony and the Cote d'or in Burgundy,—than the Pyrenees and the Apennines,—than the gigantic Mont Blanc and the south-western Alps, and probably coeval with Mont Gothard and the central Alps, the Caucasus, the Balkan, and the mighty range of Himalah in Asia,—that is, judging from the Alps in Switzerland of a comparatively recent date, or elevated since the deposition of both secondary and tertiary strata.

of granite or rather of gneiss in the valley below, and veins of foliated quartz in the schistose hills ; besides, the tendency of the formation is to table-land, ridges, and rounded summits, not to sharp or Alpine peaks ; neither did we on our route through the country see any trace of volcanic agency, nor is there anything in the outline of Atlas indicating the former existence of a crater. Returned to our camp at night.

January 9.

On a hill five hundred feet above our camp are ruins of a city, now called *Tassremoot*, apparently of great extent ; walls of unhewn limestone and mortar, baths, vaults, &c. All the information we could gain from the natives was, that it was formerly a Christian or Roman city, and tradition attaches to it the same tale as that of the taking of Troy, which, substituting mules laden with treasure, for the wooden horse, was distinctly related to us by a *Shellūh* huntsman, who, pointing to a certain spot in the wall, said, ‘ And there stood *Bāb el ’Ghraddār*,’ or ‘ traitor’s gate,’ which name it bears to this day !

January 10.

After three nights spent in the *Atlas*, at dawn of the following day began to descend on our return to the plain ; passed a basin formed by hills about five hundred feet in height, presenting a remarkable appearance ; strata of lime running north-east and south-west, dip about 70° to south-east, and which, following the undulation of the hills, gave to the north-west slope the resemblance of a series of crescents rising one above another. Again reach the regions of palm, oleanders, rose-trees, &c. ; on gaining the plain turn east-north-east, along the foot of a range of hills called the

Arina range, which presents a striking feature even as seen from Marocco ; basis of lime ; strata east and west, dip 20° to the south-east ; its north-western face precipitous, five hundred feet high, and deeply channelled with water-courses, and having dark red clay, possibly metallic, between the strata of lime. Road turns north across the plain ; soil light clay ; ground covered with cornelians, agates, &c. ; traversing numerous streamlets gushing from all the valleys of the *Atlas* ; their margins rife with vegetation ; cross the river *Tensift*, and lose sight of the tall tower of the mosque of *El Kōōtabia*, which, towering as a light-house far above the level line of verdure formed by the tops of the palm-trees around Marocco, had hitherto been our beacon across the plain. Encamped close under the eastern extremity of the schistose range of hills, forming the northern limit of the plains and at the source of the river *Tensift*. The schistose hills, varying from five to eight hundred feet in height, assume every variety of shape ; truncated

cones, pyramidal, pine-apple, sugar-loaf, &c.; one of which was covered with masses of gneiss, or coarse-grained granite, abounding with black mica; many of these blocks were several tons weight. How got they there? If granite, the nearest granite mountains are at the distance of twenty-five or thirty miles. Can they be boulders? They had rather the appearance of roughly quarried masses of four or five feet square.

January 11, 12, 13.

Left the plain of Marocco, and, striking through the schistose hills, again came on the extended plain which we had crossed forty miles to the westward, on our journey to the capital; soil, fine loam; irrigated and well cultivated; a three days' journey of about fifty miles in a north-north-east direction, over this great plain, brought us to the banks of the river

Oom-erbegh, at the ford called *Meshra el 'Khalluf*, or ford of wild boar, many of which we hunted and killed during our day's journey; the river here is not rapid; about one hundred and fifty yards broad, and fordable; it flows through banks of deep soil. During these fifty miles passed but twelve Arab encampments, and six saints' tombs; much less population, but which may be accounted for by the land being destined to pasturage; herds of cattle, flocks of sheep and goats.

January 15 to 21.

A journey of seventy miles across a series of plains, in a north-west direction, brings the traveller from the banks of the *Oom-erbegh* to the sea coast at *Fidallah*; the former part of the plain gravelly; a palmetto desert, but the latter part a fine rich soil; thinly peopled and little cultivation; but as the spring in this climate draws on, nature teems with life; the ground rich in bulbs, flowers, &c., enamelled as a carpet with iris, crocus, daffodil, narcissus, lotus, lupins, African marigolds, &c., in full bloom; that gigantic annual also, the gum ammoniac plant, like fennel, already putting forth its shoots and feathery leaves. Thirty-three Arab encampments and twenty saints' tombs passed in five days' journey.

At twenty miles north of the *Oom-erbegh*, encamped at a spot which still bears the name of

Kaisār—name and tradition agree in pointing out this spot as of ancient times. We traced the foundation of a building whose north side was two hundred and fifty paces long; round towers at the corners; walls five feet thick, of rough unhewn limestone and mortar, but level with the ground; other foundations are visible to a great extent; a well and conduits leading to the spring. The writer has great pleasure in being able to give the remarks on this

station, of a very intelligent friend, (to whose kindness* he is indebted for having accompanied this mission,) and whose opinion as an antiquary and an acute observer, is valuable. ‘ No coins could be produced, although their weight in gold was offered ; still it was asserted that many had been found ; that this has been a Mauritanian or Roman station is not improbable ; extensive ruins certainly exist, near a fine spring of water, in a rich corn plain, and about half way between the present cities of Fas and Marocco, in nearly a direct line, and a very probable situation for a connecting station between those two cities, or whatever existed on their sites. On the following day about twelve miles north of this spot, remarked several tumuli ; on riding up to examine, found two of them circular, about twenty feet high, and one hundred feet in diameter, and one long barrow ; on questioning the peasants who were ploughing the ground at their base, and inquiring whether there were any ruins near here, they replied, “ that a city, called *Caria*, had sunk into the ground ; that many well built wells were in the neighbourhood ; that coins had been found which they described as of brass, of the size of a Spanish dollar, and an inscription of straight sticks and dots.” Can this be other than the Roman denarius ?’

The Jewish Rabbi, Shalōm Ezzowi, who lies buried at *Kaisār*, is said to have been one who escaped from the destruction of Jerusalem by Titus, and as such was rendered due homage by the Rabbi and Jews of our party.

Halted for two days hunting in a fine open country at the *Kassbah dēz Zettāt*, a walled square of two hundred and fifty paces, containing about five hundred inhabitants, Moors and Jews. In one morning’s sport, roused and hunted nine wild boars, several foxes, hares, &c. Gradually descending from the immense plains of *Ducaila*, till we reach their western limit, and again hear the welcome roaring of the Atlantic, which we had lost sight of for seven weeks, and arrive on the sea-coast, close to *Fidallah* ; retrace our old road by *Rabātt*, *Mehedīa*, &c., till we reach the northern end of the great lake, when we continue northwards, passing through a small forest of cork, which is named after

Dar el Krisi, and along the eastern margin of the small lake *Muley Buselham* ; soil light sandy loam, richly covered with herbage ; passed twelve Arab camps ; eight saints’ tombs to-day.

* As also to that of Sir Thomas Fellowes, C.B., Captain of his Majesty’s ship Dartmouth, who kindly took upon himself the responsibility of giving him leave of absence from this ship then lying in Gibraltar Bay ; nor is the writer unmindful of the cheerfulness with which his brother officers volunteered to do his share of duty while he was wandering in Africa.

January 30.

Twelve miles in a north direction, over rather a sandy soil, little cultivated, and skirting the cork forest of *El Araish*, about two leagues in extent, brings us to the town of

El Araish, situated on an abrupt declivity of sandstone, on the southern bank of the river *El Kōs*, at its outlet into the Atlantic; the town walled; a ditch on the land side, and crowned by a citadel; its sea-defences also are strong; a battery of thirteen guns half a mile west of the town, and a venerable castle, with concave flanks and orillons, at the entrance of the river. This town is a picturesque ruin; Christian foundations, desecrated by Moslem superstructures; the principal mosque was a Roman Catholic Church. Here was formerly the residence of the European consuls, and their deserted houses still line the Marina, commanding a fine view of the port and of the Atlantic; the town is fast falling to decay; population may be four thousand, including Jews; some little commerce in charcoal, &c.; supplies abundant; a fine spring of water on the northern shore, very convenient for watering shipping. The river

El Kōs, signifying a bow, and so named from its windings, may be traced through a beautiful valley far away to the eastward; its banks fertile, with many gardens, which fully justify the name of the town, '*El Arais*', signifying 'the Flower Garden'; an inscription over the walls, on the sea-gate, which we decyphered with some trouble, testifies that this place was taken from the Moors, and fortified by the Spaniards in 1610. A bar of sand lies in a N. by E., S. by W. direction, about two cables length from the point of the river, and on which are sixteen feet water, on spring tides, but within is a fair port for frigates, about three quarters of a mile long, by a quarter broad, formed by the last winding or sea-reach of the river. Here were lying the two Moorish eighteen gun brigs of war, the sultan's navy, which the Austrians attempted to burn in June, 1829, and, as is well known, failed, from gross ignorance of seamanship and gunnery;—they suffered severely:—we walked over the field of battle—a sandy point, under which twenty-six of their bodies lie buried; their heads were paraded for a short time on the line wall, then pickled and sent to the sultan; many of their bodies were impaled, and the Moors amused themselves by practising ball-firing at them as targets!

February 1.

Leaving *El Araish*, road continues for ten miles along the beach; crossing ten streams running into the sea; hills at a quarter of a mile distant, varying from three to four hundred feet high, covered with herbage;—little wood. At six miles reach a bluff projecting cliff, named

Haffa el beïda (or White Cliff), from four to five hundred feet high, of a fine white claystone, its fissures or strata north and south, dip 70° to the east. Four miles farther quit the beach, and ascend the hills, covered with *droo*, palmetto, &c. ; from summit, an extensive view of the line of coast towards Cape Spartel, and across the straits to the ever memorable Cape of Trafalgar ; descend to the shore, and reach the small town of

Arzilla, a walled square of a quarter of a mile, situated on the open beach ; facing the sea are planted a few guns ; the wall built by the Portuguese ; many of the houses still preserve the pointed roof ; population may be one thousand ; country around varied and pretty.

February 2.

At three miles along the beach, ford the river *Ayasha*, and then ascend the elevated plain, and reach our former camp at *Sanya d'Ulad Sbaida*, where, after a delay of three days, waiting for the river

Meshra al Shof to become fordable, resumed our old road ; and on the 6th of February, after a three months' absence, were again warmly welcomed to the British consulate at Tangier.

On reviewing the tract of country we had passed over, notice must be taken of the tendency to table-land observable throughout. Generally speaking, all the elevations present one level ; the plains rise by three great steps to the mountains ; and the two great rivers, the *Seboo* and the *Oom-erbegh*, appear to divide the country into three partitions : of these the northern, or that from the Straits of Gibraltar to the latitude of Fez, (excepting the northern spur of the mountains,) to judge from the bold sweeps of the rivers and the lakes, is nearly a level to the foot of Atlas. From the *Seboo* to the river *Oom-erbegh*, the country dips considerably towards the west, and still more so from this latter river to the plain of Morocco ; throughout these plains there is great want of wood ; even on the skirts of the Atlas the timber does not reach any great size, nothing that we saw to justify Pliny's account of timber in speaking of Mauritania, lib. v.

But we cannot fail to be struck by the extraordinary capabilities of the soil ; from the foot of Atlas to the shores of the Atlantic, one vast corn plain. Give but direction to the waters, which are not wanting, and abundance would speedily follow. It is mortifying to see such blessings spurned by a bigoted and fanatic government—land covered with weeds that might give food to millions.

Surely some effort should be made to open a trade with this country ; the consumption of a population of five or six millions, even though they be Moors and Arabs, must be of importance to

European nations, but especially to a country so essentially commercial as Great Britain.

A few words must be said of the map. Travelling along the coast of the Atlantic from Cape Spartel to Cape Blanco, a distance of two hundred and fifty miles, generally within one mile of the sea, and often along the beach, a sailor's attention would naturally be directed to endeavour to fix the line of the coast, to effect which no opportunity was lost; not less than one hundred bearings were taken, solely for the purpose of fixing points and headlands accurately, and which were invariably transferred to paper before going to bed. The rough track contained in fourteen sheets, on the scale of half an inch to a mile, will exemplify this. These sheets have been connected, corrected by astronomical observations, and reduced to a small scale. The windings of the river *Seboo* are from a sketch of Colonel Harding, R. E., who accompanied a mission to *Fās* in 1825. The points of the northern coast from Tofino and the Admiralty charts; for the south-western parts of the coast obligations are due to the liberality and kindness of Captain Beaufort, hydrographer, for allowing the use of the late Captain Boteler's observations. With such help there is no hesitation in asserting that the present is by far the most correct map hitherto completed of the empire of Morocco.

XI.—*Some Observations upon the Geography of the Southern Extremity of South America, Tierra del Fuego, and the Strait of Magalhaens*; made during the late Survey of those coasts in his Majesty's ships Adventure and Beagle, between the years 1826 and 1830. By Captain Phillip Parker King, F.R.S., &c., and Commander of the Expedition. Read 25th April and 9th May, 1831.

CONSIDERING the vast extent of sea-coast that comprises the southern part of this continent, it is not a little surprising that it should have been so frequently passed by during the last century without having been more visited and explored. Within the last eight or ten years, however, it has been very much resorted to by English and American vessels in the seal trade, and to the observing portion of their enterprising crews many of its intricacies are well known; but as the knowledge they have derived from their experience has only in one instance, that of Mr. Weddel's voyage, been published to the world, our charts cannot be said to have been much improved for the last fifty years.

The eastern coast of Patagonia, by which name the country