

Travelling in the Sahara

Exploring the Algerian Sahara offers the traveller the ultimate challenge, not to mention some of the last great wilderness adventures in the world. You may see some of the most spectacular scenery on earth – Algeria is famed among experienced Saharan travellers as a true landscape of the soul – but the process of getting there along the long, dusty, rocky trails is something that you'll remember almost as long as you will places like Tassili N'Ajjer National Park, Tassili du Hoggar, Assekrem or Tanezrouft.

A Saharan expedition is definitely not for those who value their creature comforts, as transport can be uncomfortable, conditions are often primitive, the climate is almost always extreme and the range of food limited. There will surely come a moment when the arduous nature of travel in the Sahara makes you wonder why on earth you decided to come.

But then you'll catch a glimpse of a distant sand dune of pristine, sculpted perfection, stumble upon a slash of green in a remote canyon of desolate black rocks, discover a wall adorned with rock art so exquisite as to qualify as a masterpiece or find yourself in patient conversation with a Tuareg keen to initiate you into the Sahara's secrets. These are the moments when all memories of the hardship disappear and you begin to wonder how you can ever bear to leave.

We can also promise you one thing: once you have visited the imagined territory of the Sahara, the Sahara will fill your dreams and you'll spend the rest of your life longing to return.

BEFORE YOU GO

Visiting the Sahara, whether it be in Algeria or elsewhere, requires careful planning. While much of this involves practical preparation, it also entails catching a sense of the Sahara's magic, and dreaming a little before you go.

Some aspects of travelling in the Algerian Sahara are covered elsewhere in this book. In addition to the destination chapters – Ghardaïa and the Grand Ergs, and Tamanrasset, Djanet and the Sahara – detailed coverage of Saharan rock art can be found on p80, while descriptions of the Sahara's geography (p61) and the wildlife (p62) you may see there form a central part of the Environment chapter.

READING UP

When it comes to preparing for a Saharan expedition, a little inspiration can take you a long way. The following books will help you to catch the spirit of the Sahara and whet your appetite for what awaits you in Algeria:

Wind, Sand and Stars (Antoine de Saint-Exupéry) The existentialist bible of Saharan travel, filled with all the wisdom and gravitas of the world's largest desert.

The Sahara (The World's Wild Places, Time-Life Books) An unlikely desert classic which combines a wealth of information with evocative text that captures the essence of Saharan travel.

Libyan Sands – Travels in a Dead World (RA Bagnold) A beautifully written 1920s exploration of the Egyptian and Libyan deserts that overflows with the joy of discovery, a sensation that is still possible today.

The Gates of Africa: Death, Discovery and the Search for Timbuktu (Anthony Sattin) No book about the Saharan explorers of old so beautifully evokes the reasons why they (and perhaps we) felt so called by the desert.

The home page of Alain Sébe (www.alainsebeimages.com), arguably the finest photographer currently working in the Sahara, is filled with inspirational desert shots.

SAHARA STATS

It is a notoriously unwieldy beast to quantify, but most estimates put the Sahara's size at 9.065 million sq km, which is comparable to the continental United States. Almost a quarter of the Sahara lies within the borders of Algeria.

Contrary to popular misconceptions, sand covers just 20% of the Sahara's surface and only a ninth of the Sahara rises as sand dunes.

More typical of the Sahara are the vast gravel plains and plateaus such as the Tanezrouft of southeastern Algeria. Improbably, plains such as these owe their existence to water. When the rains ceased and the Sahara began to dry out around 4000 years ago, the rivers which once flowed from the mountains of the central Sahara to the sea dried out. They left behind mountain debris carried down onto eroded plains such as the Tanezrouft. These great tablelands of sedimentary limestone, newly exposed to unimpeded Saharan winds, were thereafter polished smooth as all loose debris was scoured away by wind and sand.

The Sahara is also home to barren mountain ranges of sandstone and granite such as the Jebel Acacus (Libya), Aïr Mountains (Niger), Tibesti (Chad), Adrar-n-Iforhas (Mali) and the Algerian ranges of the Hoggar and Tassili N'Ajjer. These dark apparitions of the central Sahara were formed by volcanic activity, beginning 570 million years ago with the Great African Episode, which formed the mountains of Africa, and culminating in the last volcanic activity a mere two million years ago. Most of these mountains are basalt to the core, with underlying foundations of granite.

Although there are places where life can seem impossible, the Sahara is home to 1400 plant species, 50 species of mammal and 18 species of bird.

Impossible Journey: Two Against the Sahara (Michael Asher) Epic tales of Saharan exploration aren't the preserve of 19th-century travellers and this crossing of the Sahara from west to east is extraordinary.

Desert Divers (Sven Lindqvist) A deeply meditative text on the peoples of the Algerian Sahara and the strange mysteries of the desert.

Mysterious Sahara (Byron Khun de Prorock) A stirring 1920s account of journeys into the Sahara (including extensive sections on Algeria) by one of the most intrepid Saharan travellers of the 20th century.

Call of the Desert (Philippe Bourseiller) A weighty coffee-table tome that you won't want in your suitcase, but which has one of the most exceptional collections of Saharan photos.

Sahara: An Immense Ocean of Sand (Paolo Navaresio and Gianni Guadalupi) A kilo or two less than Bourseiller's book, but similarly exceptional photos and lively, informative text.

Sahara: The Atlantic to the Nile (Alain and Berny Sébe) Award-winning photos of the Sahara's signature landscapes with a heavy focus on Algeria.

WHEN TO GO

The season during which you visit the Sahara will have a strong bearing on what you're able to achieve and what type of memories you'll take home.

The best time to visit the Sahara is in October or November when daytime temperatures can be surprisingly mild and the nights won't have fallen below zero as they tend to do in the months that follow. If you're lucky and there have been late-summer rains in the preceding months, some desert landscapes will still be alive with flowers and soft tinges of green.

Winter (December through to February) in the Algerian Sahara will also mean that you're free to explore just about anywhere without too much difficulty, although you may be surprised at just how cool the days can become, and nights can be bitterly, interminably cold. Having 'slept' outdoors in the central Sahara in just a light sleeping bag when the temperatures dropped more degrees below zero than we care to remember, we can only exhort you to come well prepared; see p68.

Sahara: The Forbidding Sands (Jean-Marc Durou) is a stunningly photographed addition to your library, with text by Tuareg writers and some of France's most respected Saharan travellers.

'people survive by staying indoors for most of the daylight hours'

From March until the middle of May are also good months for visiting the Sahara, although in April there is a greater risk of strong winds and sandstorms, which can reduce visibility to just a few metres and be extremely unpleasant if you find yourself in open country. By late April and early May, temperatures have begun to rise and given that your car is unlikely to let you use air-conditioning when traversing tough terrain, you may be a little more restricted in how deep into the desert you want to travel.

Don't even think of travelling in the Sahara from late May until mid-September when temperatures are fierce. In any event, given that you have to visit the Algerian Sahara in the company of a guide, you'll struggle to find one willing to leave the shade and accompany you at such times. For people who live in the Sahara, these are months to be endured and the people survive by staying indoors for most of the daylight hours. One day in the open desert and you'll feel like doing the same.

WHAT TO BRING

Although we've provided some general advice on what to bring on your visit to Algeria (see the boxed text, p14), there are further things that are specifically necessary for Saharan travel that you should consider carrying in your backpack.

Clothes & Camping Equipment

If you're visiting the Algerian Sahara as part of an organised tour, check what equipment the operator will be sending with you. A warm sleeping

TYING YOUR TAGUELMOUST

The Tuareg turban (known as an *ashaersh* or *taguelmoust*) has puzzled ethnographers for centuries. The Tuareg are one of the few societies in the world where men, but not women, must wear the veil. One functional purpose is as protection against wind and sand.

However, it also serves a social purpose in the rigid hierarchy of social relationships. A Tuareg man is not supposed to show his face to one of higher status, and Tuareg who still follow the traditional way of life will rarely expose the lower half of their face in company. When such men drink tea, they are supposed to pass their glass under their *taguelmoust* so as not to reveal the mouth.

There are many ways of tying the *taguelmoust*. Although it's likely to take a while for you to gain the casual ease with which Tuareg men accomplish the task, one relatively easy way to do it is as follows:

- Step 1** Fold the cloth so that it remains the same length but half the width.
- Step 2** Drape the folded cloth flat over your head so that three quarters of its length hangs down in front of your right arm and the shorter length over your left.
- Step 3** With your right hand, hold the cloth about halfway down its length.
- Step 4** Place your left hand across your body, and tense it so that your four fingers are pointing out to your right and your thumb is pointing to the sky.
- Step 5** Holding your left hand just below your right shoulder, about chest high and about 15cm out from your body, grasp the nearest fold of the long length of cloth in your left hand between the thumb and flattened forefinger.
- Step 6** With your right hand, quickly take the length of cloth in a full circle in front of your face and around the back of your head until you return to where you started.
- Step 7** Repeat as many times as necessary.
- Step 8** Tuck any remaining strands of cloth into the folds on the top or back of the head.
- Step 9** Ask your Tuareg guide to sort it out.

There; we told you it was easy.

bag and tent are essential in colder weather, while blankets should also be provided. A portable stove is also a must, as are kitchen and eating utensils.

No tour operator can be held responsible, however, if you find yourself freezing on a cold desert night because you didn't bring enough warm clothes. For all but summer months, we advise you to bring a jacket or coat which is effective at keeping out the wind and keeping you warm. Other warm clothes should also be considered, depending on the time of year. Thermal underwear, for example, takes up little space.

Good, sturdy boots are another must for the uneven trails of the Tassili N'Ajjer in particular.

Sunscreen is necessary, as is some form of head protection to help guard against getting sunburn or, worse, heat exhaustion. You should definitely bring a hat, but many travellers don traditional Tuareg headgear – the *taguelmoust* (see p42) or other cloth – which not only shields you from the sun, but also keeps out wind-borne sand. For advice on the complicated fun of tying your new Tuareg *taguelmoust* in nine easy steps, see the boxed text, opposite. Moisturising cream for dry skin is also recommended.

A medical kit (see p219) is a near-essential item, while you should also make sure that your travel insurance (see p202) covers you for trekking, camel trekking and 4WD expeditions in the Algerian Sahara. Some form of mosquito repellent is also recommended – that unmistakable high-pitched whine in the ear is death to sleep in many Saharan oases.

Useful items to have around the camp site at night include a Swiss army knife, a torch (some people prefer a head lantern) and spare batteries. Some travellers like to also carry a short-wave radio with them, although most prefer the silence of desert nights to knowing what's happening in the world beyond the desert. A small telescope for studying the night sky is something of an indulgence, but one that you'll appreciate if you have room in your backpack or vehicle.

Documents

Be sure to carry all your documents – passport, *carnet de passage* (passport or travel permit for your vehicle), vehicle registration and insurance papers for your vehicle – with you at all times and keep them easily accessible. The Algerian security services are known to pop up in the most remote and unlikely places and, although they're primarily there for your own protection, they'll want to make sure that everything is in order before they let you continue on your way.

Maps

Navigating the Sahara requires good maps and an experienced local guide. A satellite-generated Global Positioning System (GPS) can also come in handy, but it's no substitute for the local knowledge of an experienced guide – a GPS can point you in the right direction but can't tell what lies in your path, and hence the most appropriate route.

For an overview of the area, the regularly updated Michelin map *Africa: North and West* (sheet 953, formerly 153, scale 1:4,000,000) is one of the best and most detailed, and something of a classic. It has lent its name to the 153 Club (www.the153club.org) whose members have driven across the Sahara and around West Africa. That said, don't rely solely on the Michelin map as its scale makes it insufficiently detailed for most desert navigation. Expect also a few discrepancies between the map and reality, especially regarding road information, because old tracks get upgraded and once-smooth highways become potholed disasters.

'good, sturdy boots are a must'

STUCK IN THE SAND *Anthony Ham*

There's no feeling like it, that sense of being so deep in the Sahara and so far from civilisation that you wonder whether you've fallen off the end of the earth. The glorious sense of solitude and the gravitas of a desert landscape sculpted by the wind are among the many rewards of travelling in the Sahara. That is until something happens to your vehicle. And so it was that we awoke one morning in the sands of the Sahara to find that the car's battery was a complete nonstarter.

I have become accustomed over the years to drivers in this area being able to fix anything – for them necessity is indeed the mother of invention. I have watched, 300km from the nearest town, as my driver dismantled a Land Rover's suspension and then rebuilt it in just over two hours. I have marvelled as my guide and driver changed the entire gear system of a Toyota Landcruiser in a deep valley of a sand sea. So I wasn't worried at first.

We dug the wheels from the sand and pushed. When that failed, my driver and two guides jacked up the car and tried to spin the wheels, hoping that would coax the engine to life. They dismantled the fan belt and tried to charge the battery by hand. They talked excitedly and with purpose which suggested that things were not as bad as they seemed to me. Then came the moment when my two guides and driver stopped peering into the engine and, as one, began to look hopefully towards the horizon. That's when I knew we had problems and began to wonder just how much trouble we were in.

And so it was that one guide and one driver set out to walk 25km across the sand to the nearest police post, leaving us to contemplate what it truly meant to be stuck in the sand with no prospect of passing traffic in one of the most remote corners of the Sahara. As the hours passed, with the sun overhead, we crawled under the car for shade. What if they got lost and never returned? What if the police vehicle was under repair or away on patrol? We knew we had enough food and water for at least a week, but the sense of helplessness soon morphed into morbid thoughts.

Although my usual rule is to venture into the Sahara only with two or more 4WDs, I often break it when I am with an experienced driver who knows his car. Off the beaten track, I also always travel with a satellite phone. In this case, I had no phone and no second car.

Finally, after six hours, a police car with mounted machine guns appeared over the horizon, bearing our guide and driver and the means to restart our car.

A happy reunion. Relief that you could almost taste. And one of the most important lessons of Saharan travel learnt – always know your vehicle before taking it into the desert.

The most detailed topographical maps are the old Russian satellite survey maps (1:200,000) from the 1970s. They may be in Cyrillic script but they're still the best maps for Saharan navigation, at least when it comes to topographical features.

If you can't find the Russian maps, your next best bet is probably the series of maps produced by the Institut Géographique National (IGN). IGN's extensive series of *Carte Internationale du Monde* sheets (1:1,000,000) covers the Algerian Sahara and the most relevant sheets are likely to be *In-Azaoua*, *Djanet*, *Tamanrasset* and *In-Salah*. The only problem with these maps is that they were surveyed in the 1960s and don't seem to have been updated since. As such, they're generally excellent for topographical features, but of little use for road detail.

To try to track down these and other Saharan maps, your first stop should be **Stanfords** (☎ 020-7836 1321; www.stanfords.co.uk; 12-14 Long Acre, Covent Garden, London WC2E 9LP, UK), the world's largest supplier of maps. It also has stores in Manchester and Bristol.

In France, **IGN** (☎ 01 43 98 80 00; www.ign.fr; 107, rue de La Boétie, 75008 Paris) sells its sheet maps at stores in Paris and Dijon.

Another excellent resource, especially for preparing your vehicle for the Sahara and advice on desert driving, is the 2nd edition of *Sahara*

Overland: A Route and Planning Guide by Chris Scott. It includes 16 detailed route descriptions for the Algerian Sahara, often including GPS coordinates.

For general advice on good country maps of Algeria, see p203.

Vehicle Equipment

If you're travelling in your own 4WD, you should make sure that your engine has been rigorously checked and any potential problems either fixed or noted. If you choose the latter option, and even if you don't, a close to full set of spare parts is essential. Your tyres (including spares) must be in excellent condition, while spare inner tubes and repair kits are also a must. A spare battery can also be a good idea. Your vehicle should be equipped with either an additional petrol tank or petrol containers, as well as a number of large water containers or jerry cans – you'd be surprised at how many inexperienced desert travellers set out into the Sahara with the idea that a few water bottles will see them through.

Sand ladders (also known as sand plates), tow ropes and shovels are staples of Saharan 4WD expeditions, while electric compressors (air pumps that run from your car's engine and pump up your tyres) are useful for reinflating tyres after a journey through soft sand. An airbag jack is also an excellent thing to have on hand.

A satellite phone is another near-essential accessory, although if you're travelling with a tour company a satellite phone for the group *may* be part of the service.

RESPONSIBLE SAHARAN TRAVEL

Despite appearances, the Sahara can be an extremely fragile environment and the only evidence of your visit that you should leave behind is footprints in the sand. Some general rules to keep in mind so as to minimise your impact while travelling in the Sahara include the following:

- Carry out all your rubbish. If you've carried it in, you can carry it out. Most Algerian tour companies are sensitive to these concerns and leave behind little rubbish but you can make sure of it.

'equip your vehicle with additional petrol and water'

ENVIRONMENTALLY PISTE-OFF

Before you decide to explore the Algerian Sahara by 4WD, it is worth considering the environmental cost of what is known as the 'Toyotarisisation' of the Sahara. With their large wheels, 4WDs break up the surface of the desert which is then scattered into the air by strong winds. By one estimate, the annual generation of dust has increased by 1000% in North Africa in the last fifty years. And in case you thought that your 4WD tracks across the sands would soon be erased by the winds, remember that tracks from WWII vehicles are still visible in the Libyan Desert six decades after the cessation of hostilities. Airborne dust is a primary cause of drought far more than it is a consequence of it, as it shields the earth's surface from sunlight and hinders cloud formation.

The consequences of our impatience in the desert extend far beyond Algeria and its desert communities. The stirred-up sand threatens to envelop large tracts of the world in dust, with serious consequences for human health, coral reefs and climate change. Plankton on the surface of the world's oceans is being smothered by sand with devastating implications for marine life. Dust storms are increasingly common in cities, such as Madrid and the dust-laden winds threaten to transform 90% of Spain's Mediterranean regions into deserts. Sand from the Sahara has even reached as far away as Greenland, settling on icebergs and causing them to melt faster. The process of desertification is extremely difficult and costly to reverse.

Travelling by camel or on foot may be more restricting, but it's the best way to ensure that you leave behind nothing but footprints in the sand.

'The most significant risks for travellers in the Sahara are dehydration and heat exhaustion'

- Minimise the waste you must carry out by taking minimal packaging and instead take reusable containers or stuff sacks.
- Never bury your rubbish. Digging disturbs soil and ground cover, and encourages erosion. Buried rubbish will more than likely be dug up by animals, who may be injured or poisoned by it. It may also take decades to decompose in the dry desert air.
- Don't rely on bought water in plastic bottles. Disposal of these bottles is creating a major problem as a quick look at the outskirts of many oasis towns or travellers' former camp sites will attest.
- Sanitary napkins, tampons and condoms should also be carried out despite the inconvenience. They burn and decompose poorly.
- Where there's no toilet, bury your waste. Dig a small hole 15cm (6 in) deep. Cover the waste with soil and a rock. Use toilet paper sparingly and bury it with the waste, or burn it.
- If you light a fire, don't surround it with rocks, as this creates a visual scar.
- When collecting firewood, only use dead wood and never take from a living tree.

TREKKING SAFETY

Apart from questions of vehicle maintenance (see p71 for details), there are two major safety aspects to trekking in the Algerian Sahara.

Security

The first thing that you must take into consideration is the question of security, because militant Islamist groups continue to operate in remote stretches of the Sahara and have targeted foreign travellers in the past, most spectacularly in 2003; see the boxed text, p181, for further details. After 31 of the 32 hostages were finally freed (one died of heat exhaustion while in captivity), few people back in Europe showed any sympathy for the former captives, instead calling on the released hostages to pay back the costs of the massive search. For its part, the Algerian government maintains that the groups would not have been kidnapped had they been travelling with an official Algerian guide.

The rules surrounding expeditions into the Algerian Sahara have since been tightened and all off-road travel south of Ghardaïa must be undertaken in the company of a professional local guide, which can be arranged in Tamanrasset, Djanet or Adrar.

The most important preparation you can undertake is to carefully check the prevailing security situation for the area in which you wish to travel. One source of such information is your own government (see p201), either from their travel advisory websites or from their embassies in Algiers.

Another important information stream to monitor is forums set up for Saharan travellers. The most comprehensive of these is the **Sahara Overland** (www.sahara-overland.com), the companion website to the book of the same name.

Apart from adhering to the requirement that you travel with a professional Algerian guide, other important precautions include notifying your embassy of your plans and providing a detailed itinerary to the police in Tamanrasset, Djanet or another regional centre before you set out.

Desert Health

The most significant risks for travellers in the Sahara are dehydration and heat exhaustion. These potentially serious conditions are best combated by drinking plenty of water, doing so often and keeping your head

covered; for the latter, a hat is good, but a Tuareg *taguelmoust* (see p69 for more information) is even better. Resist the temptation to strip down to shorts and T-shirt at every available opportunity, because long sleeves and light trousers actually help to keep the body cool. Given that sweat usually evaporates in the desert before you realise it has appeared, you may not always be aware that your body is losing fluids. Don't wait until you're thirsty before drinking. You should aim to consume 6L of water per day – more if you're engaged in strenuous activity. You should also avoid direct sunlight between 10am and 3pm to minimise the burning and dehydrating effects of the sun. Remember also that the sun can be extremely powerful even on cloudy days.

Dehydration is a particular danger if you're struck down with diarrhoea, when the necessity of replacing lost bodily fluids and salts is even greater. It's also a good reason to ensure that food is properly prepared and cooked and that you, along with all those involved with your food preparation, are washing hands and cooking utensils regularly.

Another small but serious risk to your health in the Algerian Sahara is bites from snakes and scorpions. The Sahara has many poisonous snakes although the vast majority of travellers never see one. In winter and other colder months, snakes are a rarity. If you're camping in a rocky area, consider sleeping in a tent and avoid leaving any food scraps littered around the site. If that all sounds scary, remember that the incidence of snakebite is exceptionally rare and that snakes are probably more afraid of you than you are of them and will clear out long before you arrive.

If you do get bitten, remain calm, thoroughly wash the affected area and keep it below the level of your heart. Paracetamol, rather than aspirin, is recommended for the pain and you should get medical treatment as soon as possible.

Of less gravity, the hot, dry conditions can also lead to dry skin which is more uncomfortable than serious.

Safety Guidelines

Before embarking on a walking trip, consider the following points to ensure a safe and enjoyable experience:

- Be sure you are healthy and feel comfortable walking for a sustained period.
- Obtain reliable information about physical and environmental conditions along your intended route. In practical terms, this means contacting the Office National du Parc Tassili (OPTN; p191) in Djanet or the Office du Parc Nationale de l'Ahaggar (L'OPNA; p185) in Tamanrasset.
- Be aware of local laws, regulations and etiquette about wildlife and the environment.
- Before entering the Tassili N'Ajjer National Park, pay the DA100 permit in Djanet; see p191 for details.
- Walk only in regions within your realm of experience and on tracks that suit your level of fitness.
- Be aware that weather conditions and terrain vary significantly from one region, or even from one trail, to another. Seasonal changes can significantly alter any trail. These differences influence the way walkers dress and the equipment they carry.
- Avoid camping in what seems like a dry riverbed (*oued*) because rain, even kilometres away, can transform the *oued* into a raging torrent within no time.

The most dangerous snake in the Sahara is the horned viper which buries itself almost completely beneath the sand so as to conceal itself from prey – avoid walking too far away from your camp without shoes.

ON THE GROUND

You've dreamed a little, filled your backpack with all the necessities, thought about responsible Saharan travel and informed yourself as to the risks. Now's the time to explore the Sahara for real and put the theory into practice.

REACHING THE SAHARA

If you stick to the major routes, the road network is fairly well developed. Without a vehicle, you can take any of the routes (p76) normally followed by the overland crowd by using public transport to reach the start of off-road desert trails. Transport on some of the routes is, however, infrequent so you'll need to be prepared to take a plane to get out or else sit around for a week or more waiting for a shared taxi to leave. This applies mainly to the eastern route from Hassi Messaoud down through In Amenas, Illizi and Djanet to Tamanrasset. The Route du Hoggar presents no such problems, although you may end up on a bus between In Salah and Tamanrasset.

TYPES OF EXPEDITION

Most people explore the Algerian Sahara using a mixture of 4WD and trekking by foot, but for those in no hurry camel-trekking is the most environmentally responsible manner to explore the Sahara. Believe it or not, cycling is also a possibility.

4WD

There's almost nowhere that you can't reach in the Algerian Sahara in a 4WD and you're almost certain to travel by 4WD at some point in your journey, even if it's only to reach the trailhead from which you commence your trek on foot. The advantage of travelling in this way is that you will be able to range much wider than you can on foot or by camel (unless you have months to spend on the latter). You will be able to reach a more varied range of sites and traverse a more representative sample of Saharan landscapes, leaving the Algerian Sahara with a better appreciation of its scale. Travelling in this way does, however, come at a significant environmental cost (see the boxed text, p71, for details), which is something that you should take into account when deciding how best to travel in the Sahara.

Even if you are a small group or a party of one, you should never travel into the Sahara without at least two vehicles (the guide or driver brings the other). For longer expeditions, an additional vehicle is always necessary for carrying food supplies, kitchen and camping equipment and your additional water and petrol.

Desert driving requires a whole new set of skills and if you're feeling as if you could use some instruction from the experts, **Timtar Expeditions** (☎ 029 346038; www.timtar.com) in Djanet offers courses from October to May.

For advice on equipping your 4WD vehicle for a foray, see p71.

Hiking

The desire to walk in the hot Saharan sun may seem like a strange form of madness, but there's no other way to reach and explore the fine rock art that is such a feature of the Tassili N'Ajjer National Park (p194). Remember, however, that this and other treks in the Algerian Sahara are almost always restricted to rocky mountain areas and no-one's expecting you to walk amid the sands of the Grand Ergs. Sturdy hiking boots are essential.

The overwhelming benefit of exploring the Sahara on foot is that it's just you and nature and that your impact upon the environment will likely be minimal.

Hiking tours can be arranged through all of the travel agencies in Djanet (p191). Tours organised through an international tour company (see p78) can also include walking components with the cost incorporated into the overall cost of your tour.

Camel-Trekking

Surveying the Sahara from high atop a camel is desert travel at its most atmospheric, allowing you to cover reasonable distances (20km to 40km per day) but at the same time slow down to a loping desert pace. It also enables you to truly experience the solitude of the desert without engine noise and to discover an intimacy with the landscape that simply isn't possible by 4WD. By camel, you may not see great swaths of the desert, but you'll see it in far greater detail and come to appreciate its subtleties far more than you could by motorised transport. Camel safaris are

Djanet travel agencies generally charge from €50 to €60 per person per day for treks into the Tassili N'Ajjer, which should include all water, food and camping equipment, a national park permit, a guide and pack animals for carrying your luggage and supplies.

THE GREAT CARAVANS OF THE SAHARA

People have been travelling through the Sahara by camel since the 1st century BC and the great trans-Saharan caravans once created some of the most lucrative trade routes in Africa.

For centuries, there were two principal kinds of Saharan caravan. The first were the caravans organised by wealthy merchants of the oasis towns of the Sahara and trading cities along the North African coast, such as Tripoli, or in the African interior such as Kano. The merchants rarely travelled themselves, but instead paid trusted cameleers to ferry their goods across the Sahara to distant towns where the merchants' agents sold the goods and bought new ones for the return journey. In this way, goods from the interior of Africa – precious stones, gold, silver, ivory, dates and ostrich plumes – headed north to the coast while items as unusual as glass necklaces, paper from Venice for use in religious texts and linen from Marseille passed through en route south. Trade caravans such as these were, for example, the only connection that the Roman cities of North Africa had with the interior of the continent.

The prosperous trading towns of the Sahara such as Timbuktu, Agadez, Murzuq and Ghadames actually produced few goods of their own, but their merchants became adept at profiting from passing trade and ultimately controlling it. The Tuareg, too, learned how to extract their profits, alternately looting the caravans and serving as paid protectors of the travelling salesmen.

The arrival of European traders and armies on the West African coast from the 15th century onwards marked the death knell for trans-Saharan caravans. Trade was reoriented away from the Sahara and the caravans became ever less frequent over the subsequent centuries, before finally disappearing altogether.

The second type of trans-Saharan caravan were the salt caravans, which were the exclusive domain of the Tuareg who ventured deep into the salt mines of the Sahara – mines at Taoudenni in northern Mali and Bilma in northeastern Niger were the most important. Many Tuareg then travelled to towns on the Saharan fringe where they traded the salt for foodstuffs, cloth and tea. For centuries, salt was so highly prized that it traded ounce-for-ounce with gold in the lands south of the Sahara. By the time the salt caravans returned home to their bases in the Hoggar Mountains of Algeria or the Air Mountains of Niger, they had been away for seven or eight months, during which time the difficulties of Saharan travel – daily, 18-hour forced marches were the norm – had taken their toll on humans and camels alike. Many never returned.

As late as the 19th century, caravans consisting of more than 20,000 camels would set out for the salt mines amid great fanfare. Salt caravans do still cross the Sahara, especially in Mali and Niger where camels remain the cheapest way of transporting salt, but they're a shadow of their former glories and the last salt caravans are a distant memory in Algeria.

Organising a 4WD expedition through one of the travel agencies in Tamanrasset or Djanet should cost €50 to €80 per person per day.

If you're setting out on a camel expedition, consider buying Tuareg pants (*akerbai*), with their exquisitely brocaded hems. These loose-fitting pants are very comfy and ideal for minimising the chafing of riding a camel.

also the most environmentally friendly way to see the Sahara – for more information see the boxed text, p71.

The major drawback of travelling by camel is that you will be restricted to seeing a relatively small corner of the desert – so vast are the distances of the Algerian Sahara that exploring several regions astride a camel would take more time than you probably have.

Travel agencies in Tamanrasset (p185) can organise camel treks into the Hoggar Mountains (p189) and Assekrem (p188), while international tour operators (see p78) can similarly make the arrangements.

Cycling

Cycling in the Sahara seems about as likely as skiing (see p198). But think about it a little more and you'll quickly come to the realisation that the arduous but infinitely rewarding trails of the Hoggar Mountains (p189) could be a mountain-biker's paradise.

Asking Algerian travel agencies about cycling tours is likely to inspire blank looks, and suitable two-wheeled transport is almost impossible to find in Algeria so you'll need to bring your own bicycle or mountain bike and spare parts. For international tour companies offering advice and/or cycling tours to the Hoggar Mountains, see p79.

ROUTES

The possibilities are endless. What follows is our pick of the best.

Western Oases & Grand Erg Occidental

For those of you with a passion for desert oasis towns and sand seas of incomparable beauty, but with no desire to mount a major expedition, the road from Ain Sefra to Ghardaïa (see above) could be for you. The road encircles the southern half of the Grand Erg Occidental and expeditions into the sands can be arranged from both Taghit (p165) and Timimoun (p169). The Grand Erg Occidental itself is one of the largest and most beautiful sand seas in the Sahara.

The Grand Erg Oriental

The northern limits of the Grand Erg Oriental can be seen from the road between Ouargla and El-Oued and this section can be travelled by public transport. The paved road south from Touggourt bisects the erg as it runs all the way down to Illizi (for an itinerary see p20), although you would really need your own vehicle for this journey.

Like its western counterpart, the Grand Erg Oriental is a signature Saharan sand sea, and international tour operators can organise journeys south from Hassi Messaoud. After crossing the erg, the routes diverge, with some heading for Illizi (three days) and the Tassili N'Ajjer, while others pass through Amguid – the site of a Tuareg massacre of a French military expedition in 1881 (see p32) – before entering the Hoggar Mountains from the north (three days). Another possibility is to cross an arm of the erg by leaving El-Oued bound for Deb Deb (three days).

The Trans-Saharan Highway

Although the Trans-Saharan Hwy sees far fewer travellers than it used to, the route from Ghardaïa down into Niger is part of Saharan travelling legend and completing it remains a significant notch on the belt of seasoned Saharan travellers. 'Highway' is something of a loosely applied term as wind-blown sand and the impossibility of regular maintenance have meant that the road can be difficult even to find. Although in theory

this route can be completed using public transport, we don't recommend it because of the uncertainties of the journey and the bureaucratic formalities at the Niger border. In your own vehicle, allow four days to reach Arlit in northern Niger, whereafter there's a well-paved road.

Hoggar Mountains

The deep valleys and soaring, bizarrely shaped peaks of the Hoggar Mountains represent the magnificent heartland of the Algerian Sahara and are the spiritual home to the Kel Ahaggar, one of the major Tuareg confederations of the central Sahara. The most popular – and undoubtedly most spectacular – route climbs steeply up from Tamanrasset to the plateau of Atakor and Assekrem (p188); it's possible to take this route by either camel or 4WD. If your time is short, you can go as far as Assekrem and return to Tamanrasset the following day; even if the crowds that make this trek fill the route with anything but a desert solitude, don't miss it. If you've more time, there are countless opportunities to leave the crowds behind and explore further afield.

Tassili N'Ajjer

The rocky plateau that makes up the Tassili N'Ajjer National Park is only accessible on foot and you could easily spend a week trekking atop the plateau and down into the deep rocky valleys for which the region

If the sands of the Grand Erg Oriental were laid out flat, the sand would still rise 26m above the earth. The Grand Erg Oriental is believed by geologists to have been a sand sea for at least 4000 years.

ENCOUNTERS WITH THE TUAREG

Although many travellers encounter the Tuareg as guides or drivers, there are still small numbers of Tuareg families who live a traditional life across southern Algeria. Most live in semipermanent shelters, although it's not uncommon to find young Tuareg girls or boys herding their goats in remote *oueds* (dry riverbeds) or old Tuareg men similarly far from home.

If you do encounter the Tuareg in this manner, there are a few things to remember. The most important is that these families live in the Hoggar or Tassili N'Ajjer because they choose to pursue a traditional lifestyle, not for the benefit of tourists. An increasingly exploitative relationship threatens that choice and Tuareg families are in danger of becoming a tourist sideshow as foreigners seek to meet an 'authentic' Tuareg family. It's a difficulty faced by indigenous peoples the world over and the most important thing to remember is to behave with the utmost discretion. If you meet an elderly Tuareg man, address him as 'Sheikh' or 'Haj' as a mark of respect. The Tuareg are a mine of information about the region and its history and spending time talking with them is far more important than sneaking a photo.

The Tuareg have, of course, learnt the ways of the world. Many will only allow their photos to be taken if you pay money or buy something from them, while one old Tuareg man said that he allowed photos to be taken by those with a digital camera so that he could then see himself! To avoid it becoming a one-way encounter, consider making a small contribution to fuel or firewood stocks, or purchasing one of the small items they offer for sale.

Some nomadic Tuareg openly wonder whether this will be the last generation of their people who live a traditional life. Older Tuareg lament the loss of traditional ways and you'll come across Tuareg men who know how to drive a 4WD but for whom the camel is a relative mystery. Many Tuareg have been forced to move into the cities of the Sahara and further afield by government policies, droughts and decades of war and rebellion.

Perhaps moving with a changing world is merely a continuation of the Tuareg's innate adaptability, which they learnt through the centuries while coping with the world's most hostile environment. And yet, the gradual erosion of traditional Tuareg ways as a result first of colonial invasion, then government and tourist intrusion into the Tuareg realm has led many to worry that an entire way of life is in danger of disappearing. If it does, it would be one of the great tragedies of Saharan history.

Cyclists planning to travel through the Algerian Sahara should consider contacting Bicycle Africa through www.ibike.org/bikeafrica; it has some information on cycling in the country.

One area of the Algerian Sahara that is considered off-limits at present is the Tanezrouft, the desolate and often trackless area of the Sahara west of Tamanrasset and south of Reggane and across the border into Mali.

is famous. It's also possible to trek for shorter periods. For descriptions of possible routes, see p195.

Tamanrasset to Djanet

The 676km-, three-day route from Tamanrasset takes you via Assekrem and Ideles to Djanet. If you add on an exploration of the Tassili N'Ajjer, you will have covered the stand-out attractions of Algeria's southern Sahara. Travel agencies in Tamanrasset (p185) and Djanet (p191) can organise 4WD expeditions along this route. To complete this trek astride a camel would take a minimum of two weeks one-way.

TOUR OPERATORS

If this is your first journey to the Sahara, or if you can't face the logistics of organising your own expedition, there are dozens of recommended Algerian and international tour operators to choose from.

Algerian Operators

Akar Akar (☎ 029 344638; www.akar-akar.com in French; Tamanrasset) Long-established Tamanrasset agency with tours around the Hoggar.

Club d'Aventure Africaine (☎ 021 697922; www.caa-dz.com in French; 7 rue des Frères Oughlis, Algiers) Allows you to organise everything from Algiers.

Essendilène Voyages (☎ 029 475295; www.essendilene-voyages.com; Djanet) Has strong local contacts and is especially good if you're planning to cross into Niger, but also offers tours that include yoga, art therapy and family-friendly activities.

Hoggar Soleil (☎ 029 346972; www.hoggarsoleil.com in French; Tamanrasset) Four- to 14-day treks through the Hoggar and Tassili N'Ajjer.

Immidir Voyages (☎ 029 344468; www.immidir-voyages.com; Tamanrasset) Offers 4WD treks and tours around the Immidir region.

Mer de Sable (☎ 049 902595; www.agence-merdesable.com; rue Abd el-Kader Ziadi, Timimoun) Trips in camel caravans and by 4WD into the Grand Erg Occidental.

M'Zab Tours (☎ 029 880002; mzabtours@hotmail.com; ave du 1er Novembre, Ghardaïa)

Tailored tours around the M'Zab and the Grand Ergs.

Tarakeft Voyages (☎ 029 342007; www.tarakeft.com; Tamanrasset) Runs 4WD and trekking tours in the Hoggar and Mali.

Timbeur Voyages (☎ 029 475270; www.voyages-timbeur.com; Djanet) Short trips around Djanet and into the Tassili N'Ajjer.

Timtar Expeditions (☎ 029 346038; www.timtar.com; Djanet) Creative camel treks and 4WD expeditions.

Walene Voyages (☎ 029 344229; www.walene-voyages.com in French; Tamanrasset) Range of tours including camel treks to Assekrem.

Zeriba Voyages (☎ 061 382853/346924; www.zeribavoyage.com in French; Djanet) Tassili N'Ajjer treks and the Djanet–Tamanrasset route.

International Operators

All of the following agencies can arrange treks through the Hoggar Mountains and Tassili N'Ajjer.

Adventures Abroad (www.adventures-abroad.com) Small group tour.

Cheche Tours (www.chechetours.com) Excellent range of tours, some of which extend into Niger and Mali.

Explore Worldwide (www.explore.co.uk) Limited range of small-group tours.

Hommes et Montagnes (www.hommes-et-montagnes.fr in French) Eight- to 22-day treks ranked according to difficulty.

La Route du Sahara (www.laroutedusahara.com) Cultural tours to Djanet, and de Foucauld 'spiritual treks'.

Les Matins du Monde (www.lesmatinsdumonde.com in French) Tours and rock-climbing.

Sahara Unveiled by William Langeweishe is a beautifully told account of his journey along the Trans-Saharan Hwy with a uncomfortable detour to the Tassili N'Ajjer before tourism arrived.

The Tuaregs by Karl G Prasse is one of the most accessible reads about the Tuareg of Algeria and their history of occupying the Algerian south.

Lost Frontiers (www.lostfrontiers.com) Three-week tour.

Point Afrique (www.point-afrique.com in French) Extensive range of personally tailored and group tours.

SabléO (www.sableo.com) Regular cycling trips to the Hoggar Mountains.

Sahara Travel (www.saharatravel.co.uk) Self-drive 4WD expeditions.

Terres d'Aventure (www.terdav.com in French) Tours and family-friendly trips suited to kids.

Saharan Rock Art

Algeria shares with neighbouring Libya and Niger one of the finest collections of prehistoric rock art in the world, and seeking out the finely rendered paintings and carvings of Algeria's south is one of the undoubted highlights of a visit to the country. These are more than mere paintings on remote rock walls. Many date back 12,000 years. Many depict animals that haven't been seen in these parts for millennia and which are impossible to imagine in the barren heart of the world's largest desert. Indeed, there is something at once poignant and improbable about standing amid the splendid, parched cathedrals and finding images that tell the story of when the Sahara was a green and fertile land rich in water and wildlife.

Many thoughts spring to mind as you contemplate the extraordinary detail, the whimsical beauty that the images portray. The most obvious response is one of wonder. In many ways the wonder we feel when viewing rock art may not be so dissimilar from the wonder when confronted with the improbability of a giraffe, for example, which prompted the artists to paint the images in the first place.

How on earth have such seemingly fragile works of art survived the considerable ravages of time? How is it that the artists who left behind these masterpieces were able to capture a sense of childlike simplicity in their conception of the natural world but do so with such exceptional skill? How different was the Saharan world they inhabited that creatures, such as the elephant, giraffe and lion once roamed these wadis? And who were they, these great artists whose work still captivates us?

Most of the answers we know, but like any great mystery in this Saharan landscape of the imagination, there are many about which we can only speculate.

THE DISCOVERY OF SAHARAN ROCK ART

Although the indigenous Tuareg inhabitants of the Sahara have known about the rock art in their midst for centuries, it has only recently captured

WHO WERE THE ARTISTS?

The question of who sat on rocky ledges mixing their paints or chipping painstakingly away at the rock is one that continues to baffle archaeologists and rock-art specialists, inviting speculation that has intrigued European travellers for centuries. In 1850 the great German explorer Heinrich Barth visited the Tassili N'Ajjer of southwestern Algeria and wrote that 'No barbarian could have graven the lines with such astonishing firmness, and given to all the figures the light, natural shape which they exhibit'.

Some archaeologists attribute the images to the Neolithic ancestors of the modern Tuareg, the people who remained in the Sahara as the climate dried. Others claim that the Garamantes people, who inhabited Wadi al-Ajal across the border in Libya to the northwest from 900 BC to AD 500, were responsible, for they were a sophisticated people who made the desert bloom long after the rains stopped and other Saharan peoples fled south. Both claims may indeed be true, but the fact that much of the art predates these groups suggests that they were merely following a tradition set in motion by earlier indigenous inhabitants of the region.

The local Tuareg believe that the ancient artists saw their art as a school for their descendants, a history book of what they saw and how they lived. Or as one Tuareg told us, 'perhaps they were people like we are today, because human beings always like to leave their mark, to leave something behind that will remain long after we have gone.'

African Rock Art, by David Coulson and Alec Campbell, is the definitive text on the rock art of Africa, with informative narrative sections on the Sahara and lavish photographs and illustrations.

the attention of the outside world. Two German explorers of the Sahara, Heinrich Barth and Gustav Nachtigal, reported their findings and even made sketches of some of the pieces in the 19th century, but it was not until the middle of the 20th century that serious studies of the art were carried out. Frenchman Henri Lhote visited the Tassili N'Ajjer in the 1930s and was so intrigued that he returned two decades later, in 1956, to undertake a major catalogue of the region's art. Although it would be left to later archaeologists to investigate the meaning of what he saw, Lhote was the first to delineate the distinct periods from which the art dates and to realise that the images told of the 'spiritual and religious existence of the different peoples which followed on, one after another'. At the same time, just across the border in the Jebel Acacus of Libya, a team from the University of Rome led by Professor Fabrizio Mori performed a similar task, proving that borders have never been a barrier to the flourishing of artistic creativity. The work done by these specialists and their successors was critical in ensuring that the Tassili N'Ajjer, like the Jebel Acacus in Libya, was inscribed on Unesco's World Heritage List of Endangered and Protected Sites.

THE CLIMATIC CONTEXT

When the Ice Age was at its coldest in the northern hemisphere, around 20,000 years ago (18,000 BC), it ushered in a period of low rainfall and barren landscapes across the Sahara – much the same as prevails today.

With the thaw of the Ice Age 12,000 years ago (10,000 BC), the climate of the Sahara again became temperate and wild animals and people returned to occupy most of the region. This was the Sahara's golden age, when the region was bathed in what we would now call a Mediterranean climate, when vegetation and water were as plentiful as the wild animals that now adorn so many rock walls. At such a period in history the Sahara must have been a great place to live, with ample prey for hunters and a natural world that provided more than enough food for the small numbers of people spread across this immense land.

Another possible dry spell approximately 8000 years ago (6000 BC) saw the introduction of domesticated cattle from the west, but for the next 3000 years the Sahara continued to be covered with savanna, year-round lakes, pastureland and acacia trees. The temperate, often humid climate continued until 4500 years ago (2500 BC), when the last transition commenced and the Sahara began to become the vast, arid desert that it is today, a process that was drawn out over 1500 years. Perennial lakes were replaced by more-seasonal water sources and, as the region became progressively drier, oases replaced lakeside and mountain villages as the sites of settlements and agricultural or pastoral activity. It was also the period in which trans-Saharan trade became the dominant economic activity, fostered by an increased reliance on chariots, then horses and finally camels, which were introduced to the Sahara 2200 years ago (200 BC).

In addition to providing a human complement to geological studies of the Sahara's history, the Saharan rock art provides an invaluable resource depicting humankind's changing relationship with nature. The shift from a time when wild animals were dominant over humans towards domestication and a taming of the natural environment through food production and more intensive land-use practices could be Saharan rock art's most enlightening legacy.

TYPES OF ROCK ART

The two main types of rock art in the Sahara are paintings and carvings (also known as petroglyphs).

Travels and Discoveries in North and Central Africa, by Heinrich Barth, includes the author's 1850s discovery of the rock art of the Tassili N'Ajjer.

The English Patient (directed by Anthony Minghella): yes, it's pure Hollywood and no, it wasn't filmed in Algeria, but no film captures the excitement of the discovery of Saharan rock art quite like this.

One painting discovered by Henri Lhote in the Tassili N'Ajjer and called *The Negro Mask* bears a striking resemblance to the masks later used by the Senoufo people of West Africa.

WHY ROCK ART MATTERS

When the rock art of the Sahara was discovered by the outside world in the 19th century, few Europeans could believe that the paintings and engravings were the work of what were at the time believed to be the primitive cultures of Africa. Subsequent studies have proved such assumptions to be wrong and this is perhaps one of rock art's greatest legacies: African civilisations may not have left many written records, but their civilisations were as advanced as any in Europe at the time. As such, Saharan rock art is a priceless record of an otherwise undocumented period of African history, representing as it does the earliest known form of African communication.

The evidence of symbolic and religious inspiration behind the art – many studies point to religious symbolism as the primary motivation behind the art – suggests that the natural world was central to the spiritual life of the ancients, thereby deepening our understanding of the ancient world.

By providing a detailed snapshot of the region's human, geographical and climatic history, the rock art also provides a salutary lesson to the modern world in these days of creeping environmental catastrophe. After all, the artists of the green and pleasant land that the Sahara once was almost certainly never imagined that their world would one day become a desert. Not only is Saharan rock art a powerful reminder to not assume that the natural world as we know it will last forever, how well we protect art work that has survived the millennia but is now under threat from our supposedly advanced civilisation (see p84) will also provide important signs as to whether we are capable of protecting the human heritage of those who went before us.

Rock-art specialists are also keen to point out that the human history represented in the Sahara is our own heritage with strong links to the artistic influences of the Western world. For example, in *African Rock Art*, David Coulson and Alec Campbell argue that the breaking down of boundaries in European art in the early 20th century, which led to genres such as the Cubism of Picasso and others, was inspired by the masks and statuettes of sub-Saharan Africa, art forms which may have themselves derived from the artists of the Sahara before they were driven south by a drying climate.

There is also a belief among some archaeologists that it was from the Sahara that such art spread to Ethiopia, Kenya and Egypt; and the Egyptian artists possibly drew on the Saharan art for inspiration in the great subsequent flourishing of Egyptian art.

The paintings (also called pictographs) were usually applied using a brush made of feathers or animal hair, a spatula made of stick or bone or the fingers of the artist. To ensure accurate proportions, the artists are believed to have painted the images in outline and then coloured them in. Most of the paintings in Algeria are red, which was achieved through the use of a wet pigment thought to have been derived from ground-and-burned stone; the colouration came from soft rock containing oxidised iron (hematite or ochre). A liquid binder was then applied, most often egg-white or milk, although urine, animal fat and blood were also used on occasion. It is to these binding agents that we owe the remarkable longevity of the paintings.

The carvings were achieved through a method known as 'pecking', which involved the use of a heavy, sharp stone. A second stone was sometimes used to bang the sharp stone like a pick. Like the paintings, the outline was usually completed first, often by scratching. Upon completion, some of the lines were ground smooth and, on occasion, the rock face was smoothed first as a form of preparation. After metal was introduced to the Sahara around 3200 years ago (1200 BC), a metal spike may have been used.

Although the varieties of subject matter across the many open-air galleries of Saharan rock art are endless, the two most common forms are

Rock Art in Africa: Mythology and Legend, by Jean-Loïc Le Quellec, is another wonderful book that will have you imagining remote desert worlds and the people who once inhabited them.

human and animal figures. Often stylised, the human figures are shown in many different poses, from what may have been portraits to scenes of hunting, celebration and even making love, while animals are most frequently shown in motion, often pursued by hunters.

PERIODS OF SAHARAN ROCK ART

The rock art of North Africa is thought to have its origins almost 12,000 years ago (10,000 BC) in the central Sahara, although some historians believe that many paintings or carvings could date back even further. Although centuries of exposure to the elements have made it difficult to precisely date much of the rock art, most of the examples to be found in the Algerian Sahara fall within five relatively discrete historical periods.

The first of these is most commonly known as the Wild Fauna Period (10,000–6000 BC); other names include the Early Hunter Period and the Bubalus Period after a species of giant buffalo that became extinct 5000 years ago. This era is characterised by the portrayal of elephants, giraffes, crocodiles, hippopotamuses, rhinoceroses and lions from the time when the Sahara was covered by the plentiful savanna.

The Round Head Period (8000–6000 BC), overlapping its forerunner, is known for human figures with formless bodies and painted, circular heads devoid of features. Paintings from this period are found only in the Tassili N'Ajjer and nearby Jebel Acacus in Libya, and often take on enormous proportions. Women are often shown with arms raised, perhaps calling for blessings from the massive male figures alongside. During this period the people of the central Sahara are believed to have been foragers in the era prior to the appearance of domesticated stock. Its later stages feature more decorative figures adorned with headdresses and unusual clothing.

The next era was the Pastoral Period (5500–2000 BC), also known as the Bovidian Period, which coincides with the gradual transition from a temperate to arid climate. As such, this period in some ways marks the beginning of the modern Saharan world. Accordingly, human figures are shown in positions of dominance over the natural world, with spears, domesticated cattle, diminishing wild animals and ceremonies in keeping with more settled communities. Paintings of boats and the arrival of people with less Negroid features in the Tassili N'Ajjer also feature. Curiously, experts also believe that this was when the skill of the artists began to show a decrease in quality.

The Horse Period (1000 BC–AD 1) followed, with many images of horses or horse-drawn chariots, some seemingly propelled through the air, reflecting the fact that transport and movement became more sophisticated and enabled relatively long-distance travel. Cattle are by far the dominant forms. Human figures from this period are represented by two triangles, one upright and one upside down, joined at the apex with a circular head on top. Much of the Tuareg writing (Tifinagh) alongside the paintings is from this period.

The final era of Saharan rock art was the Camel Period (200 BC–present). Camels became the Sahara's beast of burden and they are shown in abundance during this period. Paintings from the earliest part of this period are of the highest quality while more recent ones are nowhere near as finely conceived.

WHERE TO SEE ROCK ART IN ALGERIA

The desert realm of remote massifs in the far southeast of Algeria is littered with rock paintings and carvings, but it is the Tassili N'Ajjer National Park (p194) that qualifies as the premier rock-art site anywhere

It is believed that in 18,000 BC the Sahara was larger than it is today, reaching far into West and even Central African regions that we now know as the Sahel.

Met Museum – Timeline of Art History (www.metmuseum.org/toah/hd/nroc/hd_nroc.htm) is a compact introduction to the art of the Sahara, with a section dedicated to the Tassili N'Ajjer.

The strange letters which appear on some rock walls are from the Tifinagh alphabet of the Tuareg, although many modern Tuareg are unable to read the letters in their ancient form.

in the world. Home to more than 15,000 petroglyphs and pictographs spread over 80,000 sq km, the Tassili N'Ajjer is the Louvre, Prado and Uffizi of the rock-art world rolled into one and if you came to Algeria and saw only the Tassili N'Ajjer, you'd leave more than satisfied.

That's not to say that there are not impressive rock art sites elsewhere, and in most cases you'll find them to be less overrun with large groups of tourists. In addition to the neighbouring national park, there are some fine sites close to Djanet, especially the iconic engraving of *la Vache qui Pleu* (Crying Cows) at Tagharghart (p194), while the paintings are also outstanding at Tamdjert (p191), close to Illizi.

Elsewhere, the Tassili du Hoggar (p189) provides an even more spectacular backdrop to the paintings and engravings, with the latter especially fine at Tin Tarabine (p190).

Away to the northwest, the rarely visited Tassili d'Immidir (p182) has hundreds of fine paintings, a wildly beautiful landscape and scarcely a tourist in sight. The Tassili d'Immidir can be accessed from either In Salah or Tamanrasset.

There are also some rock engravings at Taghit (p165) on the western fringe of the Grand Erg Occidental.

THE PROTECTION OF ROCK ART

The rock art of the Sahara may have proved to be extraordinarily durable down through the millennia, but it has never been endangered like it is today. While the local Tuareg proudly seek to safeguard the art forms and have lived alongside them for millennia, the same can't be said for tourists and oil companies prospecting in desert areas – their increasing encroachment into the rock-art world is the major threat to the art's survival.

Although oil companies have caused some damage through their prospecting, one company has set up plans for the art's preservation.

While the vast majority of tourists respect the rock art and leave it as they found it, a greedy few have decided that it would make a beautiful (or lucrative) souvenir of their visit to Algeria. Other than security concerns, the subsequent belief by the Algerian authorities that tourists cannot be trusted is central to the requirement that visits to southern Algeria can only be undertaken with a professional guide.

Algeria's suspicion of travellers on this score has not been misplaced. One of the most publicised cases came in 2004, when five German tourists went missing. Fearing a terrorist abduction, the Algerian authorities mounted a massive search, only to discover that the tourists in question had deliberately escaped their guide to go rock art hunting. They were finally discovered with a distressing array of 130 rock art pieces in their bags. They were sentenced to three months in prison and fined UK£262,000.

Sadly, such stories are all too common in Algeria, as well as in neighbouring Libya and Niger. Acts of vandalism have included chipping away sections of the rock wall and throwing water on the paintings to enhance the light for taking photographs, as well as using complex silicon processes designed to copy the paintings, all of which have placed in jeopardy the survival of art forms that have existed for over 12 millennia.

In addition to damage caused by humans, the impact of the Sahara's harsh climate is also playing a part. On a recent visit to the Jebel Acaous of Libya, we found a badly faded painting that was vividly colourful just five years ago. The cause? Unusually heavy rains that caused water to run down the rock, thereby erasing the painting.

The carving known as *la Vache qui Pleu* (Crying Cows) at Tagharghart is considered one of the masterpieces of Saharan rock art and experts believe that the artist spent months studying the site before beginning.

Le Grand Dieu du Sefar (The Great God of Sefar) in the Tassili N'Ajjer rises over 3.25m tall and, according to Henri Lhote, dates back 8000 years and belongs to the Round Head Period of Saharan rock art.

Bradshaw Foundation (www.bradshawfoundation.com/africa/) contains up-to-date news on rock-art protection, as well as galleries of photos from Saharan rock-art sites.

ROCK ART RULES OF ENGAGEMENT

It seems extraordinary that we should have to say this, but the basic rule of observing rock art is to leave the paintings and engravings as you find them.

More specifically, the various organisations dedicated to studying and protecting rock art (see below) have laid out a number of guidelines that you should follow in order to avoid accelerating the natural deterioration of the art:

- Never touch the rock art – sweat and your skin's natural oils speed up the process of fading, while the wearing down of rock by touching is similarly damaging.
- Never throw liquids on a painting or outline an image in chalk to enhance its photogenic qualities – the damage to desert varnish is irreparable.
- Never remove even the most ordinary stones from a rock art site – these may be critical for future scientific studies of the site; this is Algeria's national heritage and not yours to steal.
- Never for a minute imagine that you are improving the open-air gallery by adding your own graffiti – what you're observing is art, what you add is vandalism.
- Never walk atop an engraving or painting in order to get a better view or enable a more favourable photographic angle – pieces can break off and the loss of desert varnish inhibits future study of the site.
- Try to avoid getting too close to the rock and leaving a mass of footprints and tyre tracks alongside – it spoils it for everyone else, especially photographers, and will continue to scar the environs for years.
- Take out with you all rubbish (including cigarette butts, water bottles and cans) that you carry to the site.
- If camping in a rock-art area, never set up camp closer than 100m to a rock-art site.
- Respect the right of other travellers to view the rock art in silence and free from human toilet refuse.

ROCK ART ASSOCIATIONS

If you want to learn more about Saharan rock art or about efforts being undertaken to preserve rock art across Africa, contact the outstanding **Trust for African Rock Art** (TARA; ☎ 254-20-884467; www.africanrockart.org; PO Box 24122, Nairobi, Kenya). It's also worth keeping an eye on its upcoming expeditions to see if the association is heading to Algeria and whether you can join it.

In Germany the **Heinrich-Barth-Institut** (☎ 0221-556680; fst.afrika@uni-koeln.de; www.archaeoafrika.de) at the University of Köln is also dedicated to the study of rock art, while the **American Rock Art Research Association** (www.arara.org) flies the flag in the USA.

In France the excellent nonprofit **Association des Amis de l'Art Rupestre Saharien** (http://aars.fr/index_en.html) promotes studies of Saharan rock art and has a range of publications and forums for discussion.

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