

379.2.c.95.46

FRANCIS GALTON

The Life and Work
of a Victorian Genius

D. W. FORREST



PAUL ELEK
LONDON

1974

x1,340

3

South West Africa



Little was known about Africa in 1849. The whole southern interior was a complete blank on the map and the courses of the great rivers were uncharted. The attractions of the country for those who wished to combine exploration with big game hunting were immense, and among such people Galton numbered himself. But he had never forgotten Arnand Bey's injunction to go further than the ordinary tourist and he sought a worthier object for his next expedition than the mere amusement it might provide.

He mentioned his desire to visit South Africa to a cousin, Captain Douglas Galton, who was a Fellow of the Royal Geographical Society and who arranged to introduce him to the leading members of that body. In discussions with them his vague plans were rendered more precise, and by the March of 1850 he was able to submit to the Society a detailed plan of the journey he proposed to make from Cape Town to Lake Ngami and from thence along the river said to flow out of that lake. Lake Ngami had recently been reached from the Cape by Livingstone, Oswell and Murray; Galton sought to take advantage of this new approach and to open up the country to the north towards the boundary with Portuguese Angola. Unknown to Galton and the Royal Geographical Society, Livingstone was actually at work to the north of the lake and it was well that Galton did not persevere in his original project. As it was, external events forced him to abandon Livingstone's route to Ngami and from that change other possibilities emerged.

As a second-in-command, a young Swede, Charles Andersson, was recommended to him by a shooting friend, Sir Hyde Parker. Andersson was an amateur naturalist whose main motive in accompanying Galton was to retrieve representative specimens of the flora and fauna of the area. Physically tough and energetic, he was responsible for extending Galton's explorations in future years and for achieving the two goals which Galton set himself but never reached (See Plate IV).

Articles of exchange and presents for the native people were bought

before leaving. Besides guns, knives, and 1 cwt of Cavendish tobacco in 1 oz sticks—he was to wish he had taken 5 cwt—Galton stocked up with a large miscellany of the usual beads, chains, ornamental belts, bright uniforms, Jew's harps and, from Drury Lane, a fine theatrical crown,

'which I vowed to place on the head of the greatest or most distant potentate I should meet with in Africa.'¹

His selection of articles was made in ignorance of their relative value in the eyes of the peoples whose lands he was to traverse, and he acquired much that was to prove useless as barter.

On 5th April 1850 Galton and Andersson set sail from Southampton aboard the *Dalhousie*, an old teak-built East Indiaman, which was incapable of beating against a head wind and which took 86 days to reach Cape Town having been swept as far west as the South American coast. Galton spent his time in reading, in learning the Bechuana language at the rate of 20 words per day, and in practising with a sextant. He had studied the theory of navigation and surveying before leaving and it was with what practice he could get on board that he hoped to achieve sufficient proficiency to record the positions of hitherto unknown landmarks.

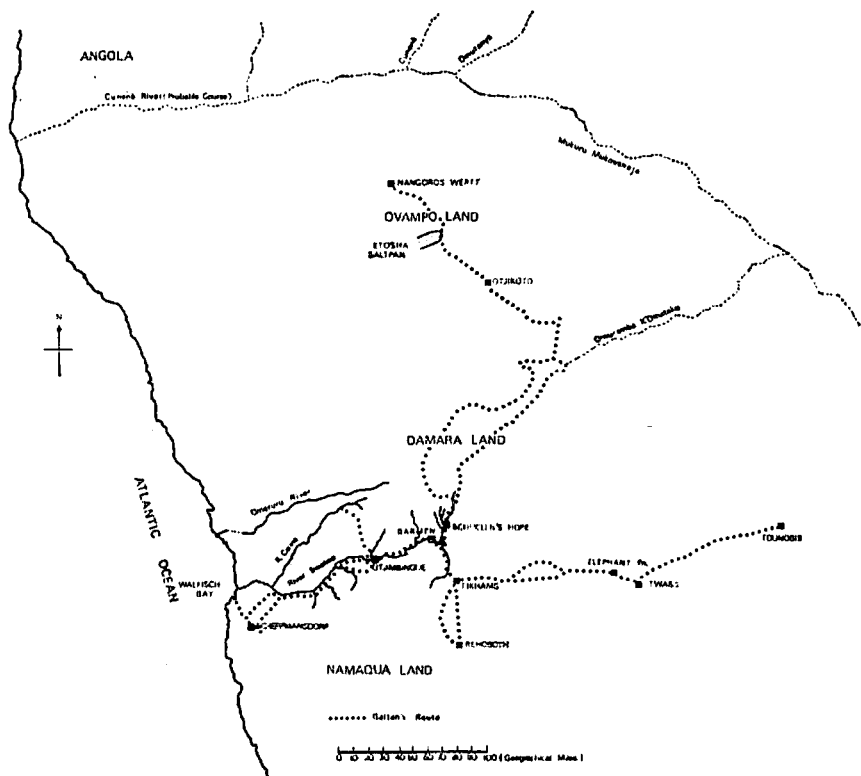
The Royal Geographical Society had provided him with introductions to various influential people in Cape Colony, including the Governor, Sir Harry Smith, after whose wife Ladysmith was named. Sir Harry was in possession of recent news which destroyed Galton's hopes of reaching Lake Ngami overland. The Boers had broken out in open revolt and had annexed the whole breadth of habitable country north of the Orange River; they were effectively astride the main route from the Cape to Lake Ngami and were determined not to allow the passage of strangers. Possible alternative land routes ran up either coast; that to the east crossed fever stricken country which it would have been foolhardy to enter, while that to the west ran over desolate country on the edge of the Kalahari desert and would entail a four month journey by oxcart.

Another possibility was to take a boat up the east coast to Mozambique and to cut inland, but they would then have had to rely on native porters for transport and Andersson needed wagons to carry his specimens.

A boat up the west coast was a more practical proposition. Several missionary stations were established inland from Walfisch Bay along the Swakop river on the borders of Damaraland. (See Map II.) It would be necessary to cover about 550 miles to reach Lake Ngami from Walfisch Bay if Galton still wished to pursue his original objective. But Damaraland itself had never been penetrated by Europeans. The missionaries had contemplated an expedition northward through that country towards the

Cunene river which bordered Portuguese Angola. If Galton explored Damaraland he could count on every assistance from the missionaries.

Adopting this line of approach and postponing any definite decision about his route until he could obtain firsthand information from the missionaries there, Galton chartered a schooner to sail to Walfisch Bay. His basic equipment consisted of two wagons and light cart. Besides horses as mounts for himself and Andersson, and mules to pull the cart, at least



MAP II. Galton's travels in South West Africa

60 oxen would be needed for the wagons and it was hoped to buy these latter animals from the native Namaquas, several days' journey from Walfisch Bay. Seven servants were engaged in Cape Town and after a month of preparation the party sailed to Walfisch Bay arriving in a week.

The Bay was a wide indentation on a desolate and barren piece of coast. The shore was dancing with mirage and it was only with difficulty that they could make out the one building there, a wooden shanty which served as a storehouse. A few natives appeared and a runner was dis-

patched the 20 miles to the nearest missionary station at Schepmannsdorf. Meanwhile, everything was landed by instalments in a dinghy. The animals swam ashore and were taken to the nearest source of water a few miles distant at Sand Fountain.

'My imagination had pictured, from its name a bubbling streamlet; but in reality it was a hole, six inches across, of green stagnant water.'

The missionary and his helper arrived next day and arranged for Galton's party to stay at Schepmannsdorf. It took them three weeks to assemble the wagons and cart and with the help of the missionaries' oxen to shift all their equipment there.

The helper, Stewartson, was willing to guide the party to the next missionary station at Otjimbingue. Stewartson had had a chequered career as a tailor, dissenting minister, and failed cattle trader. Although Galton is careful to avoid any direct criticism of the man it is obvious from his account of their journey that he did not look upon Stewartson's services as a series of unalloyed blessings.

For the journey to Otjimbingue Galton took the mule cart and horses, while Stewartson rode on an ox and the others walked. Neither men nor animals were fit for the arduous journey across the semidesert and after a few days' journey, during which Stewartson lost his way for a time, it became imperative to rest the mules as soon as they could reach the pasture land beside the Swakop river. But the river banks turned out to be unsuitable for a camp and with some misgivings Galton took Stewartson's advice that, as no wild animal tracks had been seen, the horses and mules would be quite safe beside the river while they camped a couple of miles away. Next morning he found his misgivings justified when no animals were at first to be found and when later search revealed the remains of the larger horse and a mule.

Lions had certainly been at work and as it was thought likely that they would return Galton and Andersson decided to sit up that night with their rifles on a ledge in a cliff too steep it was thought for a lion to climb. They cut some meat off the dead animals for their own consumption and stored it temporarily on the ledge. When they returned towards nightfall Galton left his gun at the bottom of the rock and clambered up to bring down the meat which his men were to carry back to camp. A sudden cry from Stewartson warned Galton that he was in danger; the lions had returned earlier than expected and one had climbed to a position a few feet above his head and was now crouched like a cat over a mouse-hole.

'I *did* feel queer, but I did not drop the joint. I walked steadily down the rock, looking very frequently over my shoulder; but it was

not till I came to where the men stood that I could see the round head and pricked ears of my enemy peering over the ledge under which I had been at work."³

Galton had one further unpleasant experience of coming to close quarters with a lion when insufficiently armed, but again the animal did not spring. Lions were numerous in the region but were not generally troublesome to the expedition and caused little damage.

Fortunately the remaining mules had escaped the attentions of the lions and were found next day, but it was a depleted caravan that continued the journey with Galton and Andersson sharing the one remaining horse. Stewartson seemed to be unnerved by the incident and insisted that they should travel in the middle of the day and in the centre of the dried-up river bed in order to avoid marauding lions. His foolish insistence almost led to Andersson's death. Andersson was on foot in pursuit of some interesting animals and somewhat separated from the main party when he began to feel giddy. He realised that he was suffering from sunstroke and was fortunate in being able to attract Galton's attention before collapsing. The heat was certainly intense, 157° F in the sun at midday.

'This appeared quite incredible to me, but I have compared 7 thermometers of 5 different makers and they all agree, so there can be no doubt about it.'⁴

The mules soon became exhausted and incapable of more than three hours' travel a day. They finally broke down not far from Otjimbinguè and oxen were brought from the missionary station to haul the cart over the final stretch.

Otjimbinguè was beautifully situated where the Swakop river ran through a broad plain, and grass and water were in abundance. The missionary received Galton kindly but had some startling news. The nearby mission at Schmelen's Hope had recently been attacked by Namaquan Hottentots who had mutilated and murdered the local Damara tribe and had frightened the missionary into leaving. Schmelen's Hope was the *ultima Thule* of the missionaries and Galton had intended it as the starting point for his exploration proper, whether to the north or to the east. In spite of the news Galton decided to press on at least to the intermediate station at Barmen where he could obtain the latest intelligence on the movements of the Hottentots.

Before leaving Otjimbinguè, another man was recruited. He was Hans Larsen, a former sailor, who had lived for several years in the country bordering the Swakop river and who had been largely responsible for shooting off most of the game.

'I found him in the neatest of encampments, with an old sail stretched in a sailorlike way to keep the sun off, and in an enclosure of thick reeds that were cut and hedged all round. The floor was covered with sheepskin mats: shooting things, knick-knacks, and wooden vessels were hung on the forked branches of the sticks that propped up the whole . . . The style of the man was exactly what I desired, for he was quiet, sedate, but vigorous and powerfully framed, showing in all his remarks the shrewdest common sense, and evidently, from the order around him, an excellent disciplinarian.'⁵

Larsen agreed to accompany Galton as his headman and with Stewartson as a third and leaving the bulk of the safari behind they rode on to Barmen. They were mounted on oxen, Galton's first experience at riding this animal for any distance. He comments,

'I think I can sit more hours on oxback than on horseback, supposing in both cases the animals to walk. An ox's jogtrot is not very endurable, but anything faster abominable. His character is very different from that of a horse, and very curious to observe; he is infinitely the more sagacious of the two but never free from vice.'⁶

In two days they reached Barmen where the missionary from Schmelen's Hope had fled for refuge. It was difficult to estimate how many persons had been killed in the attack as the natives had scattered and dead bodies were soon devoured by hyaenas. But Galton had firsthand proof of the mutilations:

'I saw two poor women, one with both legs cut off at her ankle joints, and the other at one. They had crawled the whole way on that eventful night from Schelen's Hope to Barmen, some twenty miles. The Hottentots had cut them off after their usual habit, in order to slip off the solid iron anklets that they wear. These wretched creatures showed me how they had stopped the blood by poking the wounded stumps into the sand, . . . One of Jonker's sons, a hopeful youth, came to a child that had been dropped on the ground, and who lay screaming there, and he gouged out its eyes with a small stick.'⁷

Jonker, the most powerful of the Namaquan tribal leaders, had led the raid on Schmelen's Hope. In common with many of his senior men he was an 'Oerlam', that is, of mixed Dutch-Namaquan parentage, and was legally British having been born in Cape Colony. As a minor chief in the Orange River region he had taken his small tribe northwards to make common cause with the Namaqua in their raids on Damaraland. Now, after many successes, a large group of Namaqua under his leader-

ship were well provided with guns and horses, obtained at the Cape in exchange for stolen Damara cattle. The Damara themselves, although living in fear of the better armed Namaqua, were not averse to retaliatory action and to fighting among themselves. Thus the whole country ahead was in turmoil and it was impossible for Galton to proceed without coming to some sort of *modus vivendi* with the various factions.

Galton's first attempt at a settlement took the form of a polite but vaguely worded letter to Jonker in which he pointed out that the Governor of the Cape had instructed Galton to express the goodwill of the government towards the native peoples and to warn the Namaqua that if they persisted in their attacks they would incur the same displeasure as had the emigrant Boers at Orange River. The concluding sentence of Galton's letter is worth quoting :

'I wish strongly to urge you on the behalf of common humanity and honour to make what amends you can for your late shameless proceedings. Your past crimes may profitably be atoned for by a course of upright wise and pacific policy, but if the claims of neither humanity, civilisation or honour have any weight with you perhaps a little reflection will point out some danger to your personal security.'⁸

This letter was sent by messenger to Jonker's village which was situated at the foot of a range of hills visible from Barmen.

While awaiting a reply Galton spent his time at Otjimbinguè where there was much to be done. The remaining horse and most of the mules soon died of distemper and they were now limited to oxen for transport. Luckily, Larsen was willing to sell 50 oxen and Galton bought them with some sheep and goats. Most of the party now returned to Schepmannsdorf to collect the wagons and Stewartson took the opportunity of leaving the expedition at this point.

Galton passed a month at Otjimbinguè learning the Damara language and practising with his sextant but no reply came from Jonker. Finally, in some desperation, Galton set off once more to Barmen to await developments. The reply when it came was couched in even vaguer terms than the original and agreed to nothing specific. Fearing that his whole expedition might be jeopardised by the whim of this man, Galton wrote a much more strongly worded letter in which he made clear his determination to proceed with his journey and to use force if Jonker attempted to oppose him. Another letter was dispatched to all the Damara chiefs, telling them that Galton came from a great white chief who wished them no harm but who desired to trade iron for their cattle, and asking them to permit him to cross their land.

The mission station at Barmen was a large one; besides the missionary

and his family and servants, there were several Hottentot interpreters and their wives. One wife was a veritable Hottentot Venus and she was the subject of one of Galton's more unusual enquiries :

'I profess to be a scientific man, and was exceedingly anxious to obtain accurate measurements of her shape; but there was a difficulty in doing this. I did not know a word of Hottentot, and could never therefore have explained to the lady what the object of my footrule could be; and I really dared not ask my worthy missionary host to interpret for me. The object of my admiration stood under a tree, and was turning herself about to all points of the compass, as ladies who wish to be admired usually do. Of a sudden my eye fell upon my sextant; the bright thought struck me, and I took a series of observations upon her figure in every direction, up and down, crossways, diagonally, and so forth, and I registered them carefully upon an outline drawing for fear of any mistake: this being done, I boldly pulled out my measuring tape, and measured the distance from where I was to the place where she stood, and having thus obtained both base and angles, I worked out the results by trigonometry and logarithms.'⁹

Galton questioned many of the Damara who called at the station about the country to the north and east. Most of them were completely ignorant of everything outside a radius of two days' journey, until one man reported that he had been ten days' journey to the north and had seen a lake named Omanbondè.

'The name was pretty; the idea of a lake in this dusty sun-dried land was most refreshing, and, according to my temperament, I became immediately sanguine and determined to visit it.'¹⁰

Moreover, a highly civilised agricultural people, the Ovampo, were said to live in the same direction and this information gave an added spice to Galton's curiosity. But he remained a little sceptical about his informant's accuracy in view of the further claim that another race of men in that neighbourhood were without elbow and knee joints and, being unable to lift anything to their own mouths, had to dine in pairs, each feeding the other!

About six weeks after their departure for Schmelen's Hope Andersson and the rest of the party returned with the wagons and partially broken-in oxen. No reply had yet been received from Jonker although some of the Damara chiefs had replied in a friendly fashion to Galton's circular letter. However, no Damara would agree to accompany Galton as a guide and there was growing fear among his own men that Jonker would mount an attack if they moved on any further.

Galton now made a rapid and courageous decision. Taking Larsen and a couple of men he rode off to call at Jonker's headquarters at Eikhams (the present site of the capital, Windhoek). In order to maximise the surprise effect he wore his red hunting coat and cap, jackboots and cords, a costume unknown in those parts. After a week's ride they came to Jonker's village and urging his ox to a trot Galton charged towards the huts: a small stream was taken at a jump and he rode straight up to the largest hut and pushed the ox's head as far into the doorway as possible.

Jonker was enjoying an evening pipe and was completely overcome by Galton's sudden appearance in all his finery. With severe mien Galton began to berate him soundly in English and after a while condescended to use an interpreter. Jonker never dared to look him in the face but rapidly mumbled his assent to Galton's demands. The main requirement was for him to arrange a meeting there and then with the other Namaquan chiefs; meanwhile, Galton would commandeer a hut and wait until they were assembled.

Several meetings took place and Galton spoke to the chiefs to such good effect that they were unanimous in their desire that he should draw up a system of law to help control the common situations of cattle robbery and murder. Galton's law code, which has survived in manuscript, made the theft of oxen, when proven, punishable by 40 lashes and a fine of double the number of oxen taken. It forbade the disfigurement of women and all punishment of innocent persons. Murderers were to be put to death.

Simple as it was, this code brought peace to the area for a full year. News of Jonker's submission spread rapidly among the Damara and the way lay open for Galton to proceed towards the unknown lands of the north.*

It was not until March 1851, that Galton was ready to leave Schmelen's Hope on his way towards Lake Omanbondè. The party now numbered 28 and included native wives and children. The wives were useful additions to the expedition as they carried their husbands' baggage, constructed the sleeping huts and made their meals, leaving the men free to drive and care for the oxen.

Galton took 75 oxen, most of them being needed to pull the two wagons although 20 were destined for slaughter as were similar numbers of cows and sheep. That was meat enough for ten weeks, exclusive of game. Very

* It is arguable that in the long term Galton's peace treaty did more harm than good. As Heinrich Kleinschmidt, the missionary at Reheboth, noted in translating the treaty into Dutch:

'At present Jonker is afraid of the Englishman but how long will it last—what will remain if he has no force behind him. Tricks of this kind only do harm.'¹¹

Jonker broke loose as soon as Galton had left the country and made good the time he had lost by falling on the Damara with renewed force.

little remained of their original stores; the vegetables and biscuits had all been eaten but there was still ample coffee and tea.

An early difficulty arose over the differences in eating habits among the various tribal members. Some eschewed cattle of a certain colour or sheep spotted in a particular way, and none would eat the flesh of goats. These taboos began to weaken as food became scarce and options were eliminated, and were of no consequence in the later stages of the journey. The general attitude of the Damara towards meat was another source of friction; they were not accustomed to eat it regularly but treated it as an occasion for a feast to which all were invited. As the expedition's two daily meals were composed solely of meat a radical adjustment in their attitude was necessary. When strangers in the vicinity of the camp were invited to share it, Galton's wrath was aroused as it jeopardised the future survival of the party. Superstitions about milk were also rife. Although available in abundance and the staple food of some tribes, it was almost impossible to buy it except at an exorbitant rate of exchange, such as one zebra for one gallon.

Galton appears to have had little interest in these taboos or in the reasons for their maintenance, but treats them purely as hindrances to the expedition's main purpose. Indeed, nothing about the Damara people aroused his curiosity and he was able to dismiss them in these words:

'There is hardly a particle of romance, or affection, or poetry, in their character or creed; but they are a greedy, heartless, silly set of savages.'¹²

Discipline was maintained among them by methods that must have reminded Galton of his schooldays with Dr Jeune:

'I had to hold a little court of justice on most days usually followed by corporal punishment, deftly administered. At a signal from me the culprit's legs were seized from behind, he was thrown face forward on the ground and held, while Hans applied the awarded number of whip strokes. This rough-and-ready justice became popular. Women, as usual, were the most common causes of quarrel.'¹³

Apart from the problems that arose from within the caravan, the terrain they had to cross presented its own peculiar difficulties. From the very beginning their route ran up along a ridge of jagged rock with a precipitous fall down to the Swakop river on their left. The surface was atrocious and the oxen still semi-wild. The plan of travel was to move steadily on for three hours and after that time to stop whenever they came across water; in this way they could conserve the strength of the oxen for the long haul which sooner or later they would have to under-

take. The route continued to climb until they were travelling over a plateau of 6000 ft. Here they decided to make a detour to avoid an unsympathetic Damara chief who was likely to bar their passage. The detour led them over barren country covered in thick thorn bushes which forced them to travel along dried-up water courses which led in the general direction of Lake Omanbondè. It was difficult to reconcile the conflicting reports they were receiving from wandering Damara and bushmen about the size of the lake. Part of this difficulty arose over the lack of a word for 'lake' in the Damara language. It was either perfectly dry or it was 'as broad as the heavens' but at least all agreed that it contained hippopotamus.

Their own guides were exasperating as they appeared to have little notion of time or distance. Although Galton was not inclined to place much credence on his earlier informant's tale that he had made the journey to the lake in ten days, it seemed a more reasonable estimate than that of another Damara who told him that he would be an old man by the time he returned. The guides themselves seemed to predict a journey of between five days and six weeks, which was not very helpful. Part of the difficulty arose from their inability to use any numeral greater than three.

'When they wish to express four, they take to their fingers, which are to them as formidable instruments of calculation as a sliding-rule is to an English schoolboy. They puzzle very much after five; because no spare hand remains to grasp and secure the fingers that are required for 'units'. Yet they seldom lose oxen: the way in which they discover the loss of one, is not by the number of the herd being diminished, but by the absence of a face they know.'¹⁴

In this connection Galton noted that their language was very rich in descriptive terms for cattle, with every imaginable variation in colour patterns being nameable. In fact there were more than 1000 words to describe the different colours and markings of animals. He adds:

'It is not strong in the cardinal virtues; the language possessing no word at all for gratitude; but on looking hastily over my dictionary I find fifteen that express different forms of villainous deceit.'¹⁵

After one month's travel they finally reached a hilltop below which Omanbondè was said to lie. In great excitement they pressed forward and were struggling through a large field of dry reeds when they realised that the guides were loitering behind and seemed to be looking about for something. In one of the driest years known, the lake, which was a long reach of the broad Omoramba river, had completely dried up and their present field of reeds was where the lake should have been located.

The men had been promised a fortnight's rest beside the lake with

shooting and fishing. Galton was able to suppress an incipient revolt with gifts of assegais and calico for new shirts; these were sufficient to keep the men with him as he made ready to leave the land of the Damara and to enter that of the Ovampo.

Not all the party were able to visit that fertile country. As they reached the northernmost limit of Damaraland one of the wagons came to a halt with a broken axle. They were forced to make camp on the spot; fortunately, they were near water, trees, and a tribe of friendly Damara. Timber was found to make a new axle but as the wood had to be seasoned there was no question of that wagon proceeding farther at that time. Larsen undertook to remain behind in charge of the main party and to see to the repair work while Andersson and three men accompanied Galton on ride-oxen towards Ovampoland.

A little after they started they met a caravan of 24 Ovampo on their way to buy cattle from the Damara. Galton was struck by their appearance:

'They were ugly, bony men, with strongly marked features, and dressed with a very funny scantiness of attire. Their heads were shaved, and one front tooth was chipped out. They carried little light bows three and a half feet long, and a small and well made assegai in one hand. On their backs were quivers, each holding from ten to twenty well-barbed and poisoned arrows, and they carried a dagger-knife in a neat sheath, which was either fixed to a girdle round the waist, or else to a band that encircled the left arm above the elbow. Their necks were laden with necklaces for sale, and every man carried a long narrow smoothed pole over his shoulder, from either end of which hung a quantity of packages. These were chiefly little baskets holding iron articles of exchange, packets of corn for their own eating, and water bags.'¹⁶

Although polite the Ovampo insisted that Galton's small party should wait until they had finished their bartering and that they would then guide them back to Ovampoland. It took two weeks of travel over an uninhabited country of barren plains and thorn bushes before they reached the southern limit of the Ovampo people. En route they passed a remarkable small lake, Otchikoto. There were various superstitions about this deep bucket-shaped hole which was supposed to be bottomless and bewitched so that no living thing could survive immersion in its waters. In order to dispel the first of these illusions Galton used a plumb line and sounded the depth from overhanging cliffs. His measurement of 180 ft has been confirmed on several occasions since. Strangely enough, his judgment of the width of the lake (400 ft) appears to have been a gross underestimate.¹⁷ To test the efficacy of the magic he and Andersson

stripped and swam all about the lake to the astonishment and suspicion of the Ovampo who had never seen a person swim. They emerged refreshed and still alive, Galton having inscribed his name on the rock a little above the surface level: it was reported still to be legible in 1908.¹⁸

Their journey now took them past the Etosha salt pan, one of the largest in the world and then quite unknown to geographers. The boundary of Ovampoland was unmistakable: suddenly the thick thorn bushes ceased and they emerged into large fields of yellow corn surrounded by dense timber trees and high palms. The narrow roads wound through the stubble and it was as well that they were mounted on oxen as there would have been no room for the wagons. Homesteads were scattered about with about three to every square mile and there were no villages. The land was most uniform in appearance and Galton realised that he would never find his way back without guides.

After a day's travel the Ovampo ordered them to camp near a fine clump of trees a quarter of a mile from the king's palisade. After a great deal of trouble the oxen were allowed down to the wells but there was no place for them to feed. Everyone ignored them and Galton had suspicions that the Ovampo policy was to keep his oxen in low condition so that he might be less independent.

After several days the king emerged from the palisade and waddled down to meet them surrounded by courtiers.

'I hardly knew what to do or what to say for he took no notice of an elegant bow that I made to him, so I sat down and continued writing my journal till the royal mind was satisfied. After five or six minutes Nangoro walked up, gave a grunt of approbation, and poked his sceptre into my ribs in a friendly sort of manner, and then sat down . . . Nangoro had quite a miniature court about him; three particularly insinuating and well-dressed Ovampo were his attendants in waiting; they were always at his elbow and laughed immoderately whenever he said anything funny, and looked grave and respectful whenever he uttered anything wise, all in the easiest and most natural manner.'¹⁹

The Ovampo now became more friendly and Galton obtained the impression of a kindhearted, cheerful and domestic people. However, his relationship with Nangoro remained distant as he made one social gaffe after another. Although the king was moderately pleased with his gift of an ox, he requested a cow as well. The other presents were quite inappropriate:

'It would look as *outré* for an Ovampo to wear any peculiar ornament as it would for an Englishman to do so. The sway of fashion

is quite as strong among the negroes as among the whites; and my position was that of a traveller in Europe, who had nothing to pay his hotel bill with but a box full of cowries and Damara sandals.'²⁰

When invited to a meal Galton refused to take part in a cleansing ritual in which the host gargled water and ejected it over the guest's face. As this technique had been devised by Nangoro himself as a counter-charm against witchcraft, Galton's unclean presence at the table led to some constraint.

The travellers were invited to the nightly dance held by Nangoro for the élite of Ovampoland. In his account of the proceedings Andersson claims that they took no part in the dancing but spent their time gazing at the Ovampo women.²¹ Galton, on the other hand, describes stamping around the courtyard to the beat of a tomtom and suggests, by omission, that he was impervious to the charms of the women:

'[The women] hummed sentimental 'airs all day long, swaying themselves about to the tune, and completely ruined the peace of mind of my too susceptible attendants.'²²

Galton's sexual unsusceptibility was the cause of his greatest offence to Nangoro who hospitably presented him with the Princess Chipanga as a temporary wife.

'I found her installed in my tent in negress finery, raddled with red ochre and butter, and as capable of leaving a mark on anything she touched as a well-inked printer's roller. I was dressed in my one well-preserved suit of white linen, so I had her ejected with scant ceremony.'²³

Matters were slightly improved when Galton produced the Drury Lane crown which he solemnly placed on Nangoro's head while discoursing on the importance of the ceremony in white tribal circles. Nangoro, while pleased with the effect in Galton's looking-glass, could not believe in the existence of any country inhabited solely by whites whom he considered comparable to rare migratory animals. Neither was he satisfied that they were white all over and one of Galton's men had to strip repeatedly to convince the many doubters.

Nevertheless the Ovampo were much more sophisticated than the Damara. They used beautifully worked cooking utensils and weapons. They could count to the hundreds and had more consistent ideas of distance than those Galton had encountered earlier. It was clear from their talk that a great river lay within four days' journey to the north. Galton was right in his assumption that the Ovampo were describing the Cunene river over which they carried on a little local trade with the

natives in Portuguese territory. The possible commercial importance of the river was great, if it were navigable, as it would give direct access to Ovampoland, and enable traders as well as missionaries and other agents of European civilisation to penetrate to the centre of Africa. (A hope that was never realised as the river proved unnavigable.)

The short journey to the river over easy terrain would have been well within their normal compass but the position of his party was becoming increasingly precarious. After a week's camp with no proper foodstuffs and little water the oxen were very weak. Their own food supply was dwindling and their articles of exchange were reduced to a few handfuls of beads. Galton approached Nangoro for permission to leave but could obtain no direct answer for several days. He then received an order that he was to make his farewell to the king and to leave the following day but only on condition that he followed the route by which he had entered the country from the south. Sensibly he decided to yield to the king's demand, and with regret at relinquishing a worthwhile objective coupled with relief at escaping the king's restraint Galton allowed his party to be guided through the rich lands of the Ovampo, across the barren border country, back to the place where they had left the broken wagon.

The place was quite deserted and they had to travel on for five anxious days, before they met Larsen and found nothing amiss. He had moved camp to avoid thieving bushmen in the vicinity; the wagon had been mended, sheep had been bought and the oxen were thriving.

In good spirits they travelled south by the more direct route avoiding their earlier detour as they had heard that the hostile chief was now in a distant part of his territory. Game was now abundant and they fed well. No incident occurred to slow them down over the last stretch of their journey. Galton calculated the return distance to be 462 miles which they covered in 49 days arriving at Schmelen's Hope five months after leaving.

It was now a year since Galton had left Cape Town and 16 months since he had left England. In that time he had received little news of the outside world. One English newspaper had been brought to Walfisch Bay by a settler and had been passed along the chain of missionary stations. But no letters had come from home nor were any to be expected for another four months when the next boat from the Cape arrived at Walfisch Bay. Galton decided that he would leave on that boat and occupy the interval in exploring the country to the east towards Lake Ngami.

Galton claimed to be indifferent about reaching the lake itself as he had heard that the country was unhealthy and the people hostile.* Besides, it was now two years since its discovery and it had been well explored

* Andersson comments that he was amazed to read this statement of Galton's; as far as he was concerned the lake had always been the main goal of the expedition.*



iii Francis Galton at Cambridge



iv Charles Andersson

from the south. But it was not known whether it could be reached from Schmelen's Hope. A guide was willing to take them as far as Elephant Fountain which was the furthestmost point east reached in the past by missionaries and traders, although no wagon had gone that way for years. Beyond Elephant Fountain there was said to be impassable desert.

Again Larsen remained behind; he took one wagon down to Walfisch Bay to bring back articles of exchange left in store there. Galton, Andersson and a small party of eight men took the other wagon.

Conditions were much as they had been on the trip to the north with a scarcity of water and uncertainty over the way, but they had become more confident and efficient in dealing with the usual run of emergencies. They arrived at Elephant Fountain in twelve days. The place had acquired its name from the enormous number of elephant tusks that had been found there, enough it was said to fill two wagons. One of the Namaquan Hottentot leaders, Amiral, was camped there with forty of his men and the two parties joined up for a shooting expedition.

Although Galton had triangulated the country to within a short distance of Elephant Fountain there were now no landmarks to be seen and he had to be content with lunar observations made with a large sextant for which he had contrived a stand. The same problem had arisen on his northward journey where the triangulations had ceased before leaving Damaraland.

Galton left his wagon at Elephant Fountain in the care of some of his men and taking to ride-oxen, he, Andersson and Amiral rode on to Twas which was the farthest point east known to Amiral. Ahead of them lay an arid plain which took them 20 hours to cross before they emerged suddenly into ideal big game country. Crowds of bushmen were encamped around a watering place, known as Tounobis, and Galton's party joined them. The soft ground was covered with a great variety of animal tracks and they soon began to enjoy excellent shooting, especially of the large white rhinoceros (now almost extinct).

They remained a week at Tounobis enjoying the bushmen's stories of the animals, real and fabulous, that lived around Lake Ngami. Two of the animals described in detail in these stories certainly resembled the unicorn and the cockatrice. The former had the spoor of a zebra and the horn of a gemsbok but mounted centrally on its forehead; it was almost certainly an inaccurate description of an oryx. The latter was some kind of tree snake with the comb of a guinea fowl and a cry like the clucking of a hen, but without the legendary wings.

It was only a few days' travel to the lake but they were warned that it would be a very severe ordeal as the year was so dry. Their informants were correct, as Andersson confirmed in his later travels. There would have been no water until they had travelled at least $3\frac{1}{2}$ days from Tounobis,

and such a journey would have been difficult even for fresh oxen. Galton decided that they could not survive any worsening of the conditions, and, as Amiral also wished to return, the whole party left Tounobis to travel back the way they had come.

The journey back through Schmelen's Hope to Barmen, a total distance of 311 miles, was uneventful and they found Larsen waiting there for them. It remained for Galton to divide up his possessions between Andersson and Larsen, both of whom were remaining in the country, and to make his way to Walfisch Bay, there to await the Cape Town schooner. It arrived in early January and he reached England in April 1852, two years to the day from leaving it.

A short account of his journey and a sketch map of his route from Walfisch Bay to the interior had been sent from Africa to the Royal Geographical Society. It reached London two months before he did; thus the geographers were able to assess the merits of his work before he appeared in person before them.

4

Marriage. 'The Art of Travel'



Galton arrived home to find his family in good health and eager to welcome him. But there was bad news to limit his enjoyment: Harry Hallam had died in Italy soon after Galton had left for Africa. Galton took an early opportunity to visit the church at Clevedon where several members of that unfortunate family were buried and kneeling in front of a commemorative tablet he broke down and wept without restraint for the greater part of an hour.¹

He had also to forsake Julia Hallam's companionship. She had married barely two months previous to his arrival in England.

Saddened by the double loss and not in the best of health, Galton soon sought a respite from the round of social engagements that had greeted his return. He was glad to accept an invitation from his friend, Sir Hyde Parker, to sail and fish in Norway during the summer of 1852, but he was still not fit on his return and after watching in cold weather the funeral of the Duke of Wellington he found that he was hardly able to stand. He returned to Claverdon to be nursed by his mother and Emma. By Christmas he was much improved, and the three Galtons went to Dover to see the winter through.

It was at a Twelfth Night party in Dover that Galton first met Louisa Butler, the eldest daughter of the Rev George Butler and a member of an academically distinguished family. Her father had been Senior Wrangler at Cambridge and Head Master of Harrow before his present position as Dean of Peterborough. Her youngest brother, Montagu, was Senior Classic at Cambridge and after succeeding his father at Harrow was to become Dean of Gloucester and Master of Trinity College, Cambridge. Her three other brothers all took first class degrees; George and Arthur then followed the family tradition and became headmasters of public schools, while Spencer became a barrister. (The family has retained its distinction to the present day, the Master of Trinity, Lord Butler, being the grandson of Spencer.)

A few jottings in a diary of 1853 reveal that he was invited to four

Appendix II

Stimulus Material for Word Association Experiments

Final (eighth) list of 86 stimulus words contained in Galton's notebook, 'Psychometric Inquiries', dated 13th January 1879.

Abasement	Acerbity	Advance
Abbey	Acheron	Advantage
Abcess	Achievement	Advantageous
Abduction	Acid	Adventitious
Abhorrence	Acoustics	Adversity
Ability	Acquaintance	Advice
Ablution	Acquirement	Advocate
Abnormal	Acquisition	Aeriform
Abominable	Acrobat	Aesthetics
Aborigine	Activity	Affable
Abrasion	Actor	Affection
Abbreviation [sic]	Actuality	Affiance
Absence	Actuary	Affinity
Absolute	Adage	Affliction
Absolution	Adder	Affluence
Abstemious	Addition	Affront
Abstract	Adequate	Afternoon
Abstruse	Adhesive	Agent
Abundance	Adjective	Ague
Abyss	Adjudication	Aide-de-Camp
Academy	Adjunctive	Aigle
Acceleration	Adjutant	Albino
Accepim	Administration	Album
Acceptable	Admiral	Alderman
Accidental	Admission	Alembic
Acclamation	Adoption	Alluvium
Accommodation [sic]	Adoration	Almananack [sic]
Accoutrement	Adulation	Animal
Ace	Adulteration	

Appendix III

Bibliography of Galton's published work

- The Telotype: a Printing Electric Telegraph.* J. Weale, London (1850).
Extract from a letter of 16 August 1851. *The Times*, 1 January (1852).
'Recent expedition into the interior of South-Western Africa.' *Journal of the Royal Geographical Society*, 22 (1852), pp.140-63.
Tropical South Africa. John Murray, London (1853). Second edition, under the title *Narrative of an Explorer in Tropical South Africa*, Ward, Lock and Co., London (1889).
'List of astronomical instruments, etc.' In 'Hints to travellers.' *Journal of the Royal Geographical Society*, 24 (1854), pp.1-13.
'Notes on Modern Geography.' In *Cambridge Essays contributed by Members of the University.* J. W. Parker (ed.), J. W. Parker, London (1885), pp.79-109.
The Art of Travel; or, Shifts and Contrivances Available in Wild Countries. Murray, London (1855). Second edition (1856). Third edition (1860). Fourth edition (1867). Fifth edition (1872). Sixth edition (1878). Seventh edition (1883). Eighth edition (1893). (David and Charles Reprints (1971), the 1872 edition reprinted under the title *Francis Galton's Art of Travel*, with an introduction by Dorothy Middleton.)
Arts of Campaigning. John Murray, London (1855).
Ways and Means of Campaigning. Privately printed (1855).
Arts of Travelling and Campaigning. T. Brettell, London (1856).
Catalogue of Models Illustrative of the Arts of Camp Life. T. Brettell, London (1858).
'The exploration of arid countries.' *Proceedings of the Royal Geographical Society*, 2 (1858), pp.60-77.
[Review of *Western Africa*, Hutchinson,] *Proceedings of the Royal Geographical Society*, 2 (1858), pp.227-9.
'A hand heliostat for the purpose of flashing sun signals, from on board ship or on land, in sunny climates.' *Report of the British Association* (1858), pp.15-7. Also in *The Engineer*, 15 October (1858), p.292.
'A description of a hand heliostat.' *Report of the British Association*, (1858), pp.211-2.
'Sun signals for the use of travellers (hand heliostat).' *Proceedings of the Royal Geographical Society*, 4 (1859), pp.14-9.

- English Weather Data. February 9, 1861, 9 a.m.* Privately printed (1861).
- 'Meteorological charts.' *Philosophical Magazine*, 22 (1861), pp.34-5.
- Circular Letter to Meteorological Observers. Synchronous Weather Charts.* Privately printed (1861).
- Weather Map of the British Isles for Tuesday, September 3, 1861, 9 a.m.* Privately printed (1861).
- 'Visit to North Spain at the time of the eclipse.' In *Vacation Tourists and Notes of Travel in 1860*. F. Galton (ed.), Macmillan, London (1861), pp.422-54.
- 'On a new principle for the protection of riflemen.' *Journal of the Royal United Services Institute*, 4 (1861), pp.393-6.
- 'Additional instrumental instructions to Mr Consul Petherick.' *Proceedings of the Royal Geographical Society*, 5 (1861), pp.96-7.
- 'Zanzibar.' *The Mission Field*, 6 (1861), pp.121-30.
- 'On the "Boussole Burnier", a new French pocket instrument for measuring vertical and horizontal angles.' *British Association Report* (1862), p.30.
- 'European weather charts for December 1861', *British Association Report*, (1862), p.30.
- Meteorological Instructions for the Use of Inexperienced Observers Resident Abroad.* Meteorological Society, (1862).
- 'Recent discoveries in Australia.' *The Cornhill Magazine*, 5 (1862), pp.354-64.
- 'Report on African explorations.' *Proceedings of the Royal Geographical Society*, 6 (1862), pp.175-8.
- [Preface to] *Vacation Tourists and Notes of Travel in 1861*, F. Galton (ed.), Macmillan, Cambridge and London (1862).
- 'Explorations in Eastern Africa.' *The Reader*, 1 (1863), p.19, pp.42-3. (Signed F. G.).
- 'The sources of the Nile.' *The Reader*, 1 (1863), p.615. (Unsigned).
- 'A development of the theory of cyclones.' *Proceedings of the Royal Society*, 12 (1863), pp.385-6.
- Meteorographica, or Methods of Mapping the Weather.* Macmillan, London and Cambridge (1863).
- 'The climate of Lake Nyanza. Deduced from the observations of Captains Speke and Grant.' *Proceedings of the Royal Geographical Society*, 7 (1863), pp.225-7.
- 'The avalanches of the Jungfrau.' *Alpine Journal*, 1 (1863), pp.184-8.
- [Preface to] *Vacation Tourists and Notes of Travel in 1862-3*, F. Galton (ed.), Macmillan, London and Cambridge (1864).
- The Knapsack Guide for Travellers in Switzerland.* Murray, London (1864).
- 'First steps towards the domestication of animals.' *British Association Report*, (1864), p.93-4.
- 'Captain Speke's new volume.' [Review of *What led to the Discovery of the Source of the Nile*, J. H. Speke,] *The Reader*, 4 (1864), pp.125-6. (Unsigned).
- 'Burton on the Nile sources.' [Review of *The Nile Basin*, Richard Burton and James McQueen,] *The Reader*, 4 (1864), p.728. (Unsigned).
- 'Grant's Africa.' [Review of *A Walk Across Africa*, James Grant,] *The Reader*, 4 (1864), p.792. (Unsigned).

- 'Table for rough triangulation without the usual instruments and without calculation.' *Journal of the Royal Geographical Society*, 34 (1864), pp.281-4.
- 'On spectacles for divers, and on the vision of amphibious animals.' *British Association Report*, 35 (1865), pp.10-11.
- [Letter to Major General Sabine on magnetic observations at Tiflis.] *British Association Report*, 35 (1865), pp.316-7.
- [Review of *Frost and Fire, Natural Engines, Tool Marks and Chips*, J. F. Campbell, and of *Ice-caves of France and Switzerland*, C. F. Browne,] *The Edinburgh Review*, 250 (1865), pp.422-55. (Unsigned).
- [Discussion of Nilotic discoveries,] *Proceedings of the Royal Geographical Society*, 9 (1865), pp.10-11.
- 'On stereoscopic maps, taken from models of mountainous countries.' *Journal of the Royal Geographical Society*, 35 (1865), pp.99-104. Summary in *Proceedings of the Royal Geographical Society*, 9 (1865), pp.104-5.
- Hints to Travellers*, edited by G. Beck, R. Collinson and F. Galton. Revised edition, Royal Geographical Society, London (1865). Third edition (1871). Fourth edition, edited by Galton alone (1878).
- 'The first steps towards the domestication of animals.' *Transactions of the Ethnological Society of London*, 3 (1865), pp.122-38.
- 'Hereditary talent and character.' *Macmillan's Magazine*, 12 (1865), pp.157-66, pp.318-27.
- 'On an error in the usual method of obtaining meteorological statistics of the ocean.' *British Association Report*, 36 (1866), pp.16-7. Also in *The Athenaeum*, 2027 (1866), p.274.
- 'On the conversion of wind-charts into passage charts.' *British Association Report*, 36 (1866), pp.17-20. Also in *Philosophical Magazine*, 32 (1866), pp.345-9.
- 'Hereditary genius.' [Letter in] *Notes and Queries on China and Japan*. August (1868).
- Hereditary Genius*. Macmillan, London (1869). Second edition (1892). Third edition, Watts, (1950). Second edition, reprinted with an introduction by C. D. Darlington, Collins, London (1962); and World Publishing Company, New York and Cleveland (1962).
- 'Description of the pantagraph designed by Mr Galton.' *Minutes of the Meteorological Committee* (1869), p.9.
- 'Barometric predictions of weather.' *British Association Report*, 40 (1870), 31-3. Also in *Nature*, 2 (1870), pp.501-3.
- 'Mechanical computer of vapour tension.' *Report of the Meteorological Committee* (1871), p.30.
- 'Experiments in pangenesis, by breeding from rabbits of a pure variety, into whose circulation blood taken from other varieties had previously been largely transfused.' *Proceedings of the Royal Society*, 19 (1871), pp.393-410. Also, Taylor and Francis, London (1871).
- 'Pangenesis.' [Letter in] *Nature*, 4 (1871), pp.5-6.
- 'Gregariousness in cattle and in men.' *Macmillan's Magazine*, 23 (1871), pp.353-57.
- 'Statistical inquiries into the efficacy of prayer.' *Fortnightly Review*, 12 (1872),