

Lady Smith Woodward's Memories

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INTRODUCTION

The manuscript is typed with handwritten page numbers on each sheet. It is assumed that this is the order in which Lady Smith Woodward wished it to be read. There is a short passage headed 'Introduction' followed by a long section simply headed "Memories" which constitutes approximately two thirds of the manuscript. The remainder of the manuscript concerns her memories of travels to South America, the United States of America, Spain, Russia and Transylvania (Part III). It is clear that the first part of the Memories was written/dictated by Sir Arthur and covers his childhood in Macclesfield and his early years at the Natural History Museum. The next part combines some of Sir Arthur's reminiscences as either told to Lady Smith Woodward or recorded in handwritten notes which she recounts, including brief mention of scientific trips abroad (Part I). This is followed by Lady Smith Woodward recounting brief details of Sir Arthur's visit to Lebanon in 1893 (before their marriage in 1894) and, in much more detail, their visit to Lebanon in 1926 to add to and curate the collection of fossil fishes at the American University in Beirut. It also includes details of their travels with the International Archaeological Congress to Palestine, Syria and 'Transjordan' being held at the time of their visit to Beirut. The memories then switch back to Lady Smith Woodward's reminiscences of her childhood and schooldays, mainly in London, her marriage to Arthur and their early trips together to Italy and Greece (Part II). While rather disjointed we have decided to leave Lady Smith Woodward's original scheme unchanged but split into three parts as indicated. For ease of reference we have included the original manuscript page numbering in square brackets e.g. [p. 058]. We have not rewritten or edited it, apart from the very occasional spelling error and the use of italics for organism names and for journal and book titles. What we have done is to provide a few annotations and illustrations which, we hope, you will find useful.

PART I – Introduction by Lady Smith Woodward. This is followed by Sir Arthur Smith Woodward's memories of Macclesfield as a child and a young man, his education at Macclesfield Grammar School and Owens College in Manchester, first day at the Natural History Museum in August 1882 and his early career at the Museum.

[p. 001] **INTRODUCTION**

In 1924 when my husband, Arthur Smith Woodward, retired from his post at the British Museum of Natural History which he had held for forty-two years, we went to live away from London, and among other advantages he was able to have a room large enough to house a fine old office desk which had been given to him in his boyhood. It held many boyish treasures.

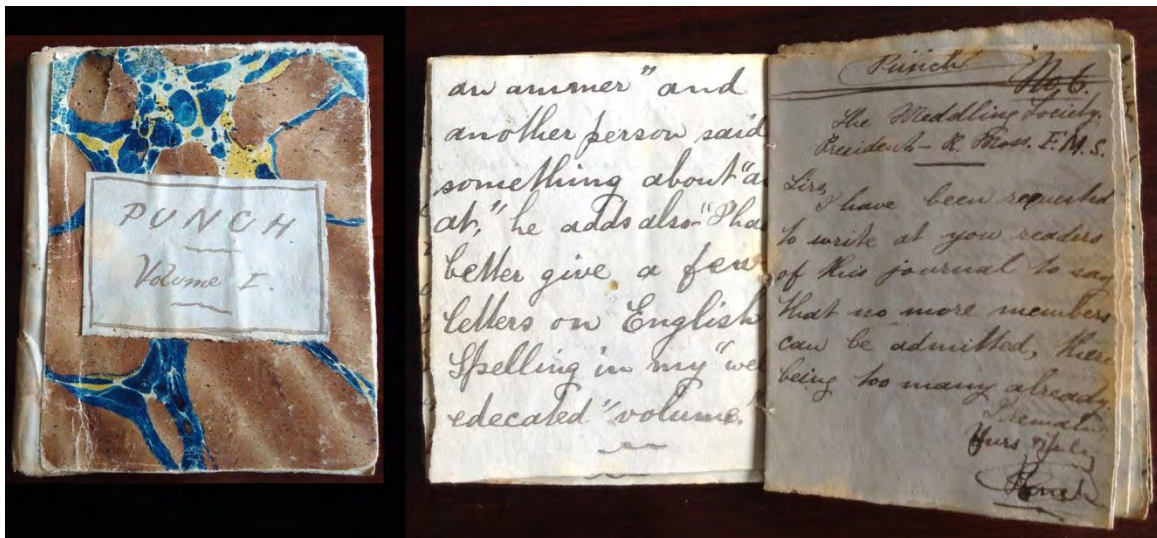


Fig. 1. Dolls' House Book. (Courtesy of Ruth Niblett, granddaughter of Sir Arthur Smith Woodward)

There were the tiny books he made for his sister's dolls' house, about two inches square (Fig. 1), and written in a minute handwriting which was already firm, regular and characteristic, and also some precocious autobiographies, the earliest when he was about eight years old. I sorted out the complete pages of a guide to North Wales begun when he was about twelve and printed by himself on a model press, his pocket money being spent on discarded type at the newspaper offices. I was able to make up three copies of the little book, which is not at all immature.

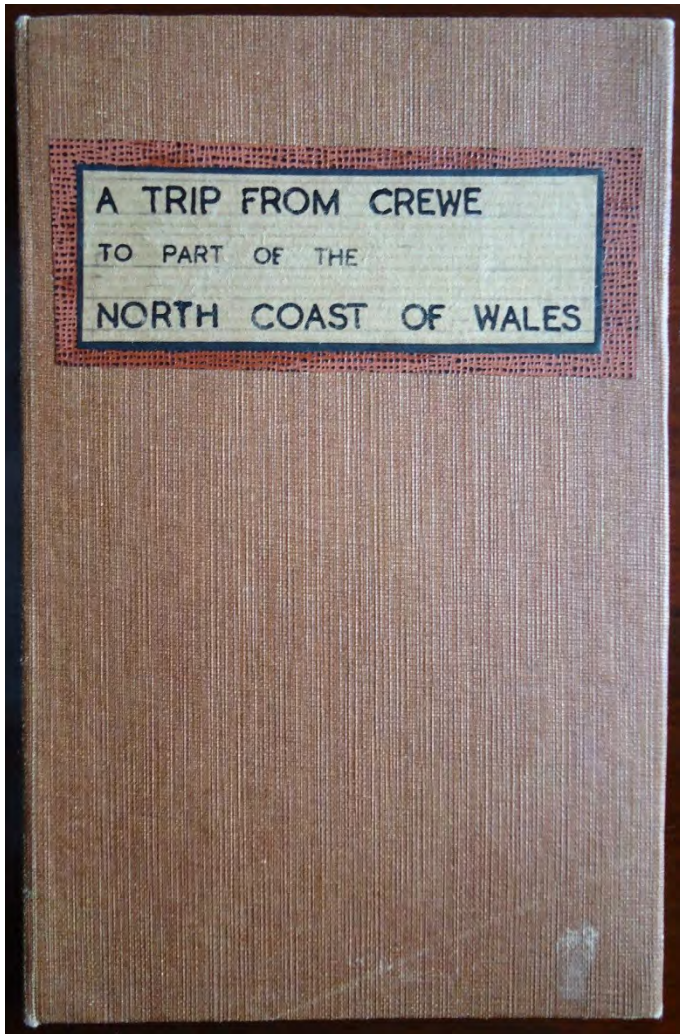


Fig. 2. Trip to North Wales. (Courtesy of Ruth Niblett)

Years later when blindness overtook him and I had to find an occupation for him, after all the odds and ends of scientific work had as far as possible been cleared up, I then remembered his early essay in autobiography and persuaded him to set down some memories of childhood. The result is here.

The conditions of the town and home which he describes as characteristic have largely passed away though similar conditions are still to be found in far and remote corners of the country.

After I was alone I also set down memories of my own childhood and added some travel notes from letters written to my mother and others on our annual expeditions to visit [p. 002] other museums. At the time when we started out in life together, wives usually remained at home while the man roamed to collect material and information for business when necessary. We went along together to visit museums and universities with their staffs; cementing

friendships, exchanging knowledge about specimens and the work of other students the world over. It was a life full of interest and variety which also added to the sum of knowledge.

It was sometimes difficult to convince a provincial curator and student of fossils that a woman could also be interested in them, and I have been marooned in a gallery of ancient vases with no guide to their meaning and uses – or the value of their decoration in the history of the land of their origin.

There were no grants or allowance of time for study at the time, and all our journeys were in our own vacation and at our own expense.

[p. 003] **MEMORIES**¹

Macclesfield, my birth-place, is a typical north-Midland industrial town, and at the time when I was born it had already become one of the chief centres of silk manufacture. The streets at the centre were narrow and irregular, and most of them were still paved with “cobble stones” or large rounded pebbles, which had been collected from the neighbouring gravel pits, or picked up from ploughed fields. Even the sidewalks were sometimes similar, but most of them were paved with large flags, quarried in the hills two or three miles away. In some of the principal streets the slippery and troublesome pebbles had already been removed and replaced by cubes of sandstone or grit which were also quarried in the neighbouring hills. The making of this new pavement was slow [and] laborious, for every cube was shaped by hand, and the only mode of transport from the quarries to the town was a small one-horse cart, with a squeaky brake which could be heard a mile away. The streets were paved only for less than a mile from the centre and then continued as macadam roads which were often very muddy or dusty. The houses in the town were built originally of local stone, but towards the end of the eighteenth century and in the beginning of the nineteenth century when an increased population began to work in the silk mills, nearly all the building was in red brick and the roofing [p. 004] was of Welsh slate. When I was a boy there remained very few of the small stone houses of a poorer kind with a heavy roof of flagstones. The shops in the chief streets of the town were built in an irregular and haphazard manner, but all of them were connected with dwelling houses which were occupied by their respective proprietors. Many of them indeed were converted private residences. Even the wealthier shopkeepers, who were often

¹ The manuscript switches here to ASW's memories, dictated to Maud.

citizens prominent in public affairs, lived at their shops. Sometimes there was a basement kitchen and living-room which overlooked the yard behind, but usually everyday life was carried on in rooms on the ground floor behind the shop. Bedrooms were upstairs but the large room on the first floor over the shop was generally furnished as a drawing-room. In the smaller shops the only front entrance was through the business premises, but in the large shops there was usually a private door at the side. All the shops were securely closed at night by strong wooden outside shutters. In fact, all houses at the time were well protected against burglary, which must have been a serious menace. Every ground floor window was closed at night with wooden shutters, either inside or outside, even in the smaller houses in the main streets. In larger houses, especially those at some distance from the roadway, or in the suburbs, the shutters were connected with bells inside, and I remember that in my grandfather's house in Sutton², there was an elaborate arrangement of [p. 005] wires to ring a bell in his bedroom if any shutters were disturbed. Both my grandfathers, whose houses were more or less isolated had a bell rope hanging near the bed, which when pulled, would ring a large bell outside the house. These arrangements, of course, were made when the houses were built, and I think public security had improved before my time. Still, precautions were very real and when my grandmother died in Sutton in 1901, a pistol was found ready loaded, and this nearly led to a fatal accident at the sale of her household goods.

All the smaller houses, the simple cottages for the poor and the improved cottages for the prosperous artisans, faced directly on the street, but the houses of the more well-to-do were guarded in front by iron railings and a gate. The means of the occupier were generally indicated by the width of the enclosed area, the poorer houses were set back only about a yard from the railing and the area was paved with flag-stones, the larger houses were set back further, and there was frequently a small bed of flowers or shrubs in the middle of the pavement. The householder was responsible for the cleaning not only of this pavement, but also for the piece of paved public footway outside his premises. It was customary to pour water on these flagstones, or "swill" them as it was termed, and to brush them well once a week. I remember that the man who was employed to do this work outside our house was paid sixpence on each occasion, but this also included a similar swilling of the back yard.

² A small village just south of Macclesfield.

[p. 006] There were no dwelling houses with cellar kitchens, but most of them were provided with a spacious dark cellar for storage. The cellar was generally used as a larder and it also provided space for firewood and other household necessities, besides beer and wine. In most houses a barrel of beer was kept on tap, and it was usual to give an occasional glass of this beer to men who did regular service to the house. It was customary for the recipient to raise his glass before drinking and say "My respects" or sometimes "Good Health".

The house in which I was born (64, Chester Road) was the end one in a row, and so was bounded in front by the main road and on the side by a little branch street which was only half made. Its partial superiority was indicated not only by the width of the railed area in front, but also by the "artistic" panelling of the front door. The blinds of the front windows were also in keeping with this impression, because they were of the kind known as Venetian; the houses of less important people had only cotton blinds.



Fig. 3. The house at 64, Chester Road in 2012. (Photograph, Mike Smith)

The opening of the front door would also reveal another mark of superiority, for the entrance hall was tiled in an elaborate pattern and not merely covered with floorcloth. The carpets were all made to fit the rooms. The material was bought in lengths and each carpet was cut and

sewn in the room for which it was intended by a man who was a specialist in such work. I remember that the man who made and fitted the carpets in our part of the town was an amusing [p. 007] bibulous person who never worked when he had money enough to enjoy himself at his favourite public house. On the ground floor there was a drawing-room overlooking the main road, a dining-room overlooking the yard, a kitchen and a scullery. The drawing-room was rarely used except when there were visitors or a party. The carpet was ordinarily covered by a thin drugget of linen, which was removed only for special occasions. The furnishing of the room was on the conventional plan of the time and place. Over the mantelpiece was a very large mirror surrounded by a more or less elaborate gilded frame, on the middle of the mantelpiece was a small clock with open works, which was covered by a glass shade, at each end was a glass vase bearing loosely hung lustres round the out turned rim. The chairs were all uncomfortable, the sitter being too much in contact with exposed pieces of wood and unable to recline. Most of them were provided with an anti-macassar which had been made or elaborately embroidered by my mother or her friends. They were often bought at sales of work. One chair at least was completely covered with embroidery and this was always protected by thin glazed calico, which was only taken off on rare occasions. There was also a fire-screen of needlework in a glass frame fixed on a vertical upright which was moveable, but not often taken from the corner in which it formed an ornament. There was a comparatively large round table of polished wood fixed on a central support. The table bore a [p. 008] centre piece of some kind, often a basket of wax flowers or fruit, under a glass shade, and round the edge was arranged a row of special drawing-room books. The most important of these was an album with thick embossed leather covers and securely closed by a metal clasp, this was filled by "carte de viste" photograph portraits of the family and their friends. It was customary to exchange portraits to make such an album as complete as possible. The next most important book was smaller and more lightly bound, with pages of coloured paper of different kinds. This was handed to friends of the family who were invited to copy on one of the pages their favourite poem or piece of prose and then sign it with a date. Such a book became an interesting miscellany of supposed literary gems. The other books in the row were very varied examples of fancy bindings, and beautifully printed English literature. Most of them had been received as wedding presents, for such books were commonly selected for the purpose. In my early days the poetical work of Alfred Tennyson were especially popular for furnishing drawing-rooms. There were also one or two small cabinets to hold old china or

similar ornaments. Our drawing-room, in addition, had in the front window a small glass cabinet with a loose glass roof which was arranged as a rather beautiful fernery. Indoor small ferneries of this kind were popular at the time.

In the dining-room, which was the living room, the [p. 009] furniture was of mahogany and the chairs were upholstered with a black cloth of horsehair, which was then very widely used. My mother's fireside chair was a low rocking chair, in accordance with the prevailing fashion. My father's corresponding chair had a high straight back, with the wooden arms cushioned only in the middle. The sofa also had a hard rim of mahogany and the back was upright, at each end it was provided with a rather hard round bolster (very convenient as a missile). There were very few books of importance in the small hanging bookcase, my father read little beyond the newspapers, the *British Journal of Photography*, and books relating to photography. My mother always had books from a library, usually novels, she also subscribed for the weekly journal known as *The Family Herald*, of which each number contained a complete novelette. One corner of the dining-room was occupied by the piano.

One wall of the kitchen was covered by a long dresser in which there were many large drawers. One of these drawers was used for our school books and others were convenient stores for many things besides kitchen utensils. The scullery was spacious, with a fireplace and a large copper which was used for the family laundry.

Upstairs there were four bedrooms, and a small narrow room which was used for the storage of linen and home-made jam. Although we eventually became rather crowded, and although we very rarely had a guest, the best bedroom was kept as a spare [p. 010] room for visitors, furnished in comparative luxury and preserved rather like a shrine. We were never allowed to use it except in some emergency.

There was no bathroom and there was no indoor sanitation. The water supply of Macclesfield at the time was insufficient for such amenities and very few houses in the town had them. The outdoor arrangements in a passage off the yard were quite primitive and connected with a spacious ashpit into which all kitchen refuse, even the discarded leaves of vegetables, were thrown. This was the breeding-ground of immense numbers of flies which invaded the house, like a plague, every summer and autumn. As this system was universal in the town the sad condition of the houses can be imagined. Fly-papers were a necessity everywhere, ingenious fly-traps were invented, and mirrors and pictures had to be temporarily protected with fine gauze. The main shelf of the larder in the cellar was also completely

covered with gauze. Meat was kept in a special meat safe with a perforated metal door. The ashpit was emptied only at distant intervals when it happened to be full, a service for the purpose was organised by the local farmers who took away the valuable material at night, and so described it as "night soil". The total produce of the town was an important item in fertilizing the surrounding farm lands.

At the end of our paved yard there was a rockery which separated it from a long narrow garden. On one side of the [p. 011] garden there were flower beds which were always well filled with annuals in the summer. On the other side beyond a convenient wooden shed was a lawn, which was used as a drying ground on washing-day. This lawn was frequently our playground and our children's gardens occupied one edge of it. In our restricted space we did not grow fruit or vegetables, because we had a large garden for that purpose adjacent to my father's dye-works.

My family occupied the house just described for about seventeen years, when my father's mother died and left her house and large garden vacant. This house was enlarged and brought up to date according to the ideas of the time, and then my father and mother occupied it until their death³. I was there for little more than two years, during my attendance at the Owens College⁴ in the University of Manchester, when I moved to London on my appointment to the British Museum.

During the whole of my boyhood the public activities of the town were numerous and varied, and depended more on local initiative than they have done in later times. A Philharmonic Society provided good concerts in which the efforts of the Society's amateurs were supplemented by the engagement of a few well-known professionals who were paid adequate fees. The Useful Knowledge Society⁵, which was a most active intellectual centre, brought to the town many lecturers who gave both popular and special discourses. Among the popular lecturers was Mr. B. J. Malden, who was a widely known pioneer in the use of the

³ This house was 22 Whitfield Mount, Upton, Prestbury, just outside Macclesfield.

⁴ Owens College, founded in 1851, became the founding college in 1880 of the new Victoria University of Manchester, now amalgamated into the University of Manchester.

⁵ A nationwide movement with local societies. The Macclesfield Society for Acquiring Useful Knowledge was founded in 1835 to enhance the technical skills of the local workforce. Like many of the other similar societies, it was supported mainly by businessmen and prominent townfolk. See p. 226 of *A History of Macclesfield*. Commissioned by the Corporation of Macclesfield to commemorate the 700th anniversary of the granting of a charter to the Borough. Edited by C. Stella Davies, University of Manchester Press, 1961. The building where meetings were held still exists but is now a Wetherspoon's public house called The Society Rooms.

double [p. 012] magic lantern which showed dissolving views. He lectured chiefly on historic towns and foreign travels, and his lantern slides were beautifully coloured photographs⁶. Among the more special lecturers were distinguished professors from the Owens College, Manchester, who discoursed on chemical and physical subjects, with illustrative experiments, and on natural history with coloured diagrams. I have vivid recollections of the lectures of Prof. W. C. Williamson⁷ on Insectivorous Plants, and Prof. W. Boyd Dawkins⁸ on the discoveries of remains of Prehistoric Man and animals in caves. There were also lectures by prominent citizens who had travelled abroad and among these I especially remember Alderman William Bullock's account of his visit to Moscow, when he joined a party to discuss the silk industry with Russian silk manufacturers. I was also interested in Alderman Joseph Wright's lecture on his visit to the Centennial Exhibition in Philadelphia in 1876 which he eventually expounded into a book.

More elementary teaching was given by local volunteers, in the Large Sunday School⁹, to those poorer people, who had grown up before the Education Act of 1870, and desired to become acquainted with at least the elements of reading, writing and arithmetic. When I was a little boy, I was proud to help one of these volunteers by sewing together sheets of writing paper to make copy books for her pupils. The teaching, of course, was given chiefly on Sundays, because on week-days artizans worked [p. 013] for long hours in the mills. The usual hours were from 6.0am in the morning to 6.0 p.m. in the evening, except on Saturdays, when the closing time was 1 p.m. Old men when unable to continue regular work, were often employed as watch-men and "knockers-up". The latter had their fixed rounds of certain cottages where they knocked at the door or window to awaken the factory workers. It was customary, if a worker were a few minutes late to send him away until breakfast time, and so deduct the earnings of two hours from his weekly pay. All factory workers had to keep their hands smooth for dealing with the silk thread.

⁶ Benjamin John Malden (1838-1933) was famed for his magnificent 'dioramas'. He gave his magic lantern slide shows and lectures on topical and historic subjects all over the country.

⁷ William Crawford Williamson F.R.S. (1816-1895), naturalist and palaeobotanist. In 1851 he was appointed the first professor of natural history, anatomy, and physiology at Owens College.

⁸ William Boyd Dawkins (1837-1929), geologist and palaeontologist, was appointed professor of geology at Owens College in 1874 where in 1880 he taught the young ASW. See the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

⁹ More than 2000 pupils (boys and girls) had been taught in five separate buildings. The Large Sunday School, an impressive, four storey building opened in 1814, was built to take them all. It was attended by all denominations, and dissenters and was built by voluntary subscription. It now houses the Macclesfield Heritage Centre.

A Savings Bank occupied a handsome stone building on Park Green, Macclesfield, where it had prospered since 1818. The small gifts which I received, especially from my grandmothers, were placed there to my account. The Post Office Savings Bank had not yet come into local favour. Post Office telegrams had only recently began and they were very little used by private residents, who tended to regard the receipt of a telegram with trepidation, as usually announcing death, illness or misfortune. The expense of postage and note paper was also watched by the thrifty housewife, who wrote across the notepaper when she had filled it in the normal way. Crossed letters, though difficult to read, were almost universal.

Like other towns Macclesfield was occasionally visited by touring companies who combined instruction with amusement. [p. 014] Among these should be specially mentioned Poole's "Diorama" or "Mirorama"¹⁰ which was a series of large coloured pictures illustrating current events, travels abroad, or interesting natural phenomena. The pictures formed a panorama worked on rollers, and lighting effects were introduced by the clever use of a magic lantern to illustrate such catastrophes as the earthquake of Lisbon and eruptions of Mount Vesuvius. A lecturer described the successive scenes, and light entertainment was provided by a song at suitable intervals, probably while the rollers were changed. In my time one of the most successful panoramas represented the Prince of Wales' (Edward VII) visit to India, and I was much thrilled to watch a tiger slowly and stealthily making its way through long grass. The proprietor of Poole's Diorama always sent an agent to the various schools of the town to distribute vouchers for cheap tickets among the scholars. Each of these vouchers entitled the holder to admission to the Saturday afternoon performance at half-price. The theatrical touring companies which came to the local theatre presented chiefly exciting melodrama, such as *East Lynne*¹¹, but I was never taken to see them.

There were also frequent visits from old-fashioned circuses which performed in a large tent erected near the entrance to the public park in a field which is now covered with modern villas. We were never taken to the actual performances, but all children watched with great interest and excitement the [p. 015] procession through the streets in the middle of the day. This procession, which was headed by a band, comprised great painted and gilded wagons,

¹⁰ "Poole's Myriorama" was a very popular touring show, an example, like Malden's, of the moving panorama shows that spanned much of the nineteenth century and continued right up to the 1920s.

¹¹ An extremely popular stage adaptation of the novel of the same name by Ellen Wood (1814-1887, known as Mrs Henry Wood), published in 1861. The play, though not the novel, contains the famous line, 'Dead, dead and never called me Mother'. Mrs Wood was a hugely successful novelist.

often bearing performers in costume, with the principal performers, also in costume, riding the horses. Occasionally there were camels and elephant, and the whole show was enlivened by the vagaries of the clowns who ran about on foot. At the annual fair in May, there were other shows including a Wild Beast Show in which I had my first view of such animals as lions, tigers and hyaenas. There was still another popular show which was inspired in those days by Pepper's ghost at the London Polytechnic¹². It produced a very satisfactory ghost as part of a theatrical performance. The merry-go-rounds with model horses and coaches were already worked by steam power, which also provided the music. My little self always longed in vain for a helping of pease pudding at the attractive Pea Saloon.

In the streets there was often a German brass band, which must have made a good living, judging from the frequency of its visits. There was also still occasionally a foreigner with a performing bear, which seemed to evoke as much pity as it afforded entertainment. An Italian sometimes appeared grinding music out of a barrel organ, and exciting much interest, especially among children by the antics of the monkey which accompanied him.

A familiar sight in the streets was the Town Crier in [p. 016] his official uniform, who not only gave out public notices, but was also often engaged to announce meetings, shows, sales of various kinds, and losses of personal property. He had already dropped the formal opening words, "oh yes, oh yes" which his predecessors had used to replace the Norman French "Oyez! Oyez!"

The population was sharply divided into groups, not only in accordance with the personal riches and occupation but also according to the particular church or chapel which they attended on Sunday. Churches and chapels were especially numerous, and it was commonly said that they were more than were really needed, because so many men were anxious for office and had to be satisfied. They all existed in friendly rivalry which was especially shown at the festivals known as the Annual Sermons and the frequent Sales of Work or Bazaars when courtesy visits to one another were universal. As a New Year's festivity each Church and Chapel had an Annual Tea Party, which was always well patronised by the congregation. After the tea tables were cleared away, the clergyman or pastor made a suitable speech particularly reviewing the past year, and he was often followed by one or two of the officials who made

¹² Pepper's ghost, named after its inventor, Professor JH Pepper, was a technique for creating illusory ghostly images. The Pooles used it in their shows. Pepper, a science lecturer and a showman, was Director of the Royal Polytechnic Institution in London. Its aim was to demonstrate new inventions and technologies to the public and was famous for its amazing magic lantern shows.

shorter speeches. The rest of the evening was devoted to instrumental music and singing, and in later years some ventured on comic interludes, even admitting a play. The room was always strongly scented by oranges, which were sold by children and eaten throughout the evening. For several years each congregation was greatly [p. 017] interested in the movement known as the Blue Ribbon Army¹³. Frequent meetings were arranged and addressed by temperance reformers who induced many to enrol themselves as total abstainers from alcoholic drinks and to wear a little piece of blue ribbon on their coat or dress to indicate the pledge that they had taken. This movement everywhere had a very important social influence. Under the auspices, chiefly of the Sunday Schools, there was also a popular entertainment known as the Spelling Bee. It was a public competition in spelling and flourished in the town for a long time.

Funerals were as a rule more elaborate ceremonies than they are now, they were attended only by men, all of whom wore complete mourning. On arrival at the house, each mourner handed his tall silk hat to the undertaker's official who draped it in a large piece of black silk and also gave him a pair of black kid gloves. The piece of black silk was a valuable perquisite, and was often made afterwards into a child's frock. If the funeral were in the morning refreshments of wine and biscuits was usually provided. The mourners rode in black coaches with black horses, and if the deceased were a person of importance the procession was followed by the private carriages of his friends, all empty and having the blinds drawn. In the houses of the deceased and the relations, the blinds remained drawn so long as the body awaited burial, and most of the houses on the route of the funeral similarly drew down their blinds at the [p. 018] time when the procession was due to pass. It always proceeded at walking pace.

A few interesting old customs survived until my boyhood. At that time the newly elected Mayor gave a banquet to the corporation and certain prominent citizens, and he also distributed sweet spiced cakes to the wives of those whom he invited, and to a few intimate friends. They were known as Mayor's cakes. There were also some seasonal customs which I think are no longer observed. Immediately after the harvest the shops sold newly threshed

¹³ An American temperance movement founded by Francis Murphy (1836-1907) who was born in Ireland but moved to America as a 16 year old. The blue ribbon was inspired by a line from the Old Testament (Numbers 15, 38 'Speak unto the children of Israel, and bid them that they make them fringes in the borders of their garments throughout their generations, and that they put upon the fringe of the borders a ribband of blue: 39 And it shall be unto you for a fringe, that ye may look upon it, and remember all the commandments of the LORD, and do them; and that ye seek not after your own heart and your own eyes, after which ye use to go a whoring:').

wheat, which housewives bought to make what they called "furmetry", a word which was doubtless a corruption of "frumenty". The wheat was boiled in milk, a little thickened with flour, sweetened and flavoured with nutmeg and other spices. We children ate the dish on one or two mornings instead of the usual bread and milk.

When I was a boy there were no fried fish shops, and the cooked meats purchased by artisans as supper dishes were various forms of tripe and onions, black puddings, and "savoury ducks". The latter were little heaps of chopped liver, flavoured with herbs including onions. There was also a large thin oatcake similar in composition to that made in Scotland, but soft and moist. It was cooked on a hot iron plate, chiefly in cottages, and on the last occasion which I visited the town, the art of making it seemed to have been almost lost.

[p. 019] During the whole of my boyhood there was much poverty among the artisans, especially among those who were aged and those who had large families. They could obtain a certain amount of Poor Law Relief through the Relieving Officer who was under the direction of the Board of Guardians. This Officer, however, was often unsympathetic and took every opportunity of ordering applicants into the Workhouse instead of giving money to them. If the applicant did not know personally any of the Guardians, he or she had little chance of appeal against the Relieving Officer's decision. The order to the Workhouse was always dreaded for the regulations there were irksome, and every man, woman and child was dressed in a distinctive pauper uniform. My uncle, Joseph Arnold¹⁴, who was a Guardian for many years did his best to have the poor children removed from the taint of the Workhouse and boarded out among certain approved cottagers, but it was not until some years after his death that Boards of Guardians adopted this scheme. It was not until many years later that the pauper uniform was abolished. The poor did all they could to avoid the Workhouse, and each householder in the town who could afford to do so gave a small weekly dole to several of them whose circumstances he or she happened to know. The aged usually received one penny a week and distracted mothers received little presents of food, such as beef bones and dripping and crusts of bread. Used tea leaves were also given to the poor, for tea was then too expensive for many

¹⁴ It is not known how Smith Woodward was related to this person, who is listed as a private resident at 27, High Street, Macclesfield in the 1878 Post Office Directory of Cheshire (p. 231). The same Joseph Arnold was in partnership with Alderman John Birchenough (Birchenough & Arnold, 1878 Post Office Directory of Cheshire, p. 598), a prominent Macclesfield politician and silk manufacturer.

of them to buy it. [p. 020] "Recommendations"¹⁵ for the local Infirmary or Dispensary were given away by subscribers.

My great grandfather, Ralph Woodward, came to Macclesfield during the "Industrial Revolution" at the beginning of the nineteenth century. For at least 200 years his ancestors had lived at Werton in Staffordshire, close to the Derbyshire border, where they were farmers. From 1665 onwards there are records of successive families in the Register of Werton Church and one of the bells is inscribed with the name of a John Woodward who was churchwarden in 1603. The Woodwards seem to have been interested in religion, for I have a religious poem by one of them in handwriting probably of the beginning of the eighteenth century. There were many other Woodwards in the district even earlier, and several of them were Anglican clergymen. One of their descendants was John Woodward, founder of the Woodwardian Professorship of Geology at Cambridge, who was born at some unknown place in Derbyshire in 1665.

Ralph Woodward was born at Townend Farm, Werton, in 1774, and after his removal to Macclesfield he appears soon to have taken his place among successful silk manufacturers. He eventually built cottages for his work-people and his inherited interest in religion caused him to add a special room where he could hold religious services and himself preach. This room was named Zion Chapel and it is still in use as a mission centre. As a memento of Ralph Woodward I have the fine old mahogany desk which he used in his office.

[p. 021] Ralph Woodward died in 1842 and was succeeded in the silk mill by his son, John Woodward, my grandfather. He carried on the business for about sixteen years when it came to an end through difficulties with a partner. His retirement was only short for he died in November 1859. He was Mayor of Macclesfield in 1854/55.

My grandfather married Ann Barnett whose brother, Robert Barnett, became well known as a musician (as recorded in James Brown's *Biographical Dictionary of Musicians* 1886). He resided in London and for some time taught the pianoforte at the Royal Academy of Music. His cousin, William Barnett, who had a dye-works in Macclesfield, was a well-known magistrate and benefactor of the town. He was one of the chief founders of the local Infirmary and a portrait of him is carved above the main entrance of this Institution.

¹⁵ Unknown but presumably a form of free prescription.

My father, Edward Woodward, was the only son of John Woodward and was born in 1833. At the time when he was a boy, the local silk manufacturers and other prosperous business men usually sent their sons to private schools, of which there were several in the town. The Macclesfield Grammar School of King Edward VI had a strictly classical and mathematical curriculum and it did not add a "Modern" School until some years later. My father went to the school of a Doctor Dickenson, and one of his fellow-pupils was his life-long friend Thomas Wardle¹⁶, who settled in Leek and was eventually Knighted for his services to [p. 022] the silk industry especially in northern India. There was no science teaching in any of the elementary schools, but a few classes in chemistry and kindred subjects were held in the Mechanic's Institute¹⁷ which was controlled by the Useful Knowledge Society. As my father was destined for a career in the dye-works of his uncle, William Barnett, he attended the chemistry class at this Institute, and obtained a good general knowledge of the subject as it was then understood. At the same time he became interested in photography, and for the rest of his life photography was his most absorbing hobby. He made many experiments in processes which were suggested by his reading of the technical papers, but he never published his results. His pictures were chiefly of scenes in town or country which appealed to him as artistic or curious, and he never attempted any systematic collection of special subjects. He designed a portable darkroom which could be folded to form a kind of wheel-barrow and with this contrivance he was able to go afield, to take pictures by wet plates which were developed on the spot. It was not until his later years that dry plates were invented and solved the difficulties which always attended the use of wet plates. He was a member of the Manchester Photographic Society, and in his later years was a familiar figure at Photographic conventions.

In the dye works my father began at the beginning and even for a few years after he was married he still went regularly [p. 023] to the dye-house at 6 o'clock in the morning when the working day began. This enabled him to assume complete control when the death of his uncle in 1873 made him a partner in the business. During his time the discovery of aniline dyes and the consequent multiplication of colours, caused great changes in silk dying. The increasing use of various chemicals to weight the silk which reduced the durability of silk fabrics also troubled

¹⁶ Sir Thomas Wardle (1831-1909) of Leek, prosperous and successful silk dyer, friend of William Morris whom he taught to dye yarn and print cloth. One-time president of the North Stafford Field Club of which in 1925 ASW was an honorary member. See the chapter 'A Splendid Position' (Shindler & Smith 2015).

¹⁷ Organisations set up to provide adult education, particularly technical, and often funded by local industrialists with the objective of improving the quality of the labour pool.

him, and when he found that I and my brother had other interests, he retired from the business and spent the rest of his life at home.

The earliest record which I have of my mother's family is that of her grandfather, James Smith, who seems also to have come to Macclesfield during the Industrial Revolution at the beginning of the nineteenth century. I possess a silver tankard which is inscribed as having been given to him in 1829 by William Gates in token of gratitude for services rendered. These services were evidently connected with the establishment of the local silk industry. James Smith built a mill for the manufacture of silk trimmings in Pitt Street, Macclesfield, and when he died, his business was continued by his son, John Smith, who was my mother's father.



Fig. 4. The mill building in Pitt Street converted to flats. (Photograph, Mike Smith)



Fig. 5. Plaque above the entrance door to the flats. (Photograph, Mike Smith)

John Smith evidently prospered for he purchased a small estate in central Wales to which he repaired frequently for game shooting. On these occasions he carried a gold watch which was specially protected from damage by a finely engraved case. I possess this watch as a memento [p. 024] of him. John Smith died shortly after I was born, but his widow Anne Smith lived until 1901 when she died at the age of 84. One of her cousins was the sculptor Thomas Thorneycroft, R.A., who was born at Tidnock Farm, Gawsworth, a few miles from her home. It is said that in his young days he proposed marriage to her, but that she refused him. He gave her a beautiful little sculpture of a lady's hand which she always kept in sight in her drawing-room¹⁸.

My mother was also sent to private schools which were then the only provision for the education of girls in the town. She, however, was sent later to a school in the suburbs of Manchester, where a girl's education was supposed to be "finished". The teaching at this school was not restricted to books, but also made a speciality of calisthenics and deportment.

¹⁸ Thomas Thorneycroft was a leading sculptor of the mid 19th century. Among his works is the monumental Boadicea and her Daughters which stands at the end of Westminster Bridge in London.

She used to tell a story to illustrate the way in which deportment was regarded and taught in those days. One evening after school was over, she was sitting cross-legged on a chair in a rest room. The proprietress, who was also headmistress happened to open the door and look into the room, but instead of entering she quickly retreated. She went to collect all the schoolgirls she could find, and returned with them to the rest room. She then asked the assembled scholars to observe the inelegant attitude of Margaret Smith, and take care never to be so indelicate. Such were the ideas of propriety at the time. Embroidery and fine needlework were also taught at this school [p. 025] and for the whole of her life they formed one of my mother's chief interests. Her reading during my boyhood was chiefly novels and I remember especially bringing for her from the library those of E. J. Worboise¹⁹ and Mrs. Henry Wood²⁰. My mother died in 1931 at the age of 92, her grandmother Ann Nield died in 1882 at the age of 101.

I remember my great grandmother, Ann Nield, who lived with a maid in a cottage at the end of my grandmother Smith's garden. She had removed to this small house on the death of her husband in 1864. She was the daughter of a farmer at Bosley named Chapman, and she and her husband kept a farm, Moss Bower, on the edge of Dane's Moss, near Macclesfield. In her early days she had a curious hobby, the making of small pieces of furniture by pasting together paper over a light wooden framework. The materials were chiefly discarded newspapers and old copy books which were pasted one over the other until a sufficient thickness was obtained. The external ornament was made by cutting out thick pieces of paper or cardboard, and by pieces of string arranged to form ridges. The whole was then painted and varnished, and was a strong article of furniture. There are still preserved two small chests of drawers, one bearing the initials M.S. and the other the initials A.S. which were made by her for her grandchildren my mother and her sister.

¹⁹ Emma Jane Worboise (1825-1887) published about 50 highly popular and sensational novels on domestic themes, with a Christian (Protestant) message.

²⁰ See footnote 11.



Fig. 6. A small *papier mâché* cabinet typical of the items described. This one has embossed on the back 'BETTY NIELD AGED 70 1853'. (Courtesy of Ruth Niblett)

In her old age she continued to brew home-made wine which was then usual among farmers, and she always gave a small glass of this [p. 026] wine to myself and my brother when we visited her. I remember particularly the rhubarb and the gooseberry wines. She still kept her house lantern with its guttering candle, and I sometimes carried it for her through my grandmother's garden at night.

My father and mother were both musical, my mother playing the piano and my father the violin and viola. They frequently played piano and violin duets, especially on Sunday evenings. Their favourite composers were Mozart, Beethoven, Hayden and Mendelssohn. My father was much in demand at public performances to play the viola which was then an uncommon instrument, and he occasionally played the organ at the Large Sunday School in the town. I used to accompany him sometimes when he played the viola at the festivals of the local Roman Catholic Church, where the priest in charge enjoyed fine music. I was taught to play violin when I was so small that I had the midget instrument suitable for children. For the short time I also had lessons on the full-sized instrument, and several times I was invited together with my father to join the small musical parties which were then usual in the houses of local music-lovers. My mother often played for my brother and myself, and later for my two sisters as well, simple tunes to which we could sing, and on these occasions we enjoyed noisy harmony. Many of these tunes were printed in a favourite annual, *The Children's Friend*²¹, which used to be

²¹ A monthly journal providing religious and moral guidance.

given to us. Others were the lively [p. 027] hymn tunes composed and sung by the Americans, Moody and Sankey, who were then touring the country to advertise an American Harmonium. Their hymn singing proved such a success that they soon became better known as evangelists²².

Among other childhood recollections must be mentioned the annual dose of spring physic which was then customary in well conducted families. There was the inevitable brimstone and treacle and it was often supplemented by a horrible concoction known as Gregory's Powder²³. At other times I was often dosed with a fluid called Steel, and it was not until later that the more palatable mixture of iron and quinine took its place. Still later there came the tonic Orange Quinine Wine, to which I did not object at all. I was glad, however, finally when my mother began to have faith in homoeopathy for then physic became nothing more than a sweetmeat.

I was the first child of the family born on May 23rd 1864. My brother was only sixteen months younger than myself, so that we were suitable playmates. My earliest recollection is that of playing with my mother's crinoline, which, when hanging at the foot of the bed, made a delightful tent. We had the ordinary toys which were sold for boys at the time, but we enjoyed most the box of carpenter's tools, and the various forms of wooden bricks.

²² Ira David Sankey(1840-1908) and Dwight Lyman Moody(1837-1899) were enormously popular gospel singers and evangelists, attracting huge crowds in Britain as well as the USA.

²³ A remedy containing powdered rhubarb, widely used to treat stomach complaints. It was created by James Gregory (1753-1821), a physician and professor of Medicine at Edinburgh University.



Fig. 7. ASW (on right) and his brother John at play with their favourite toy. (© The Trustees of the Natural History Museum, London)

I remember especially the joy with which I received a fret-saw, which made it possible to carve patterns in the thin wood obtained from cigar boxes. We were always eager to make something and do mechanical work. In fact, we soon wished to do [p. 028] something which needed thought and scheming. My father encouraged our ingenuity by buying for us the wire puzzles which were then so common. He had to go to Manchester on business each Tuesday, and he often collected from the pavement merchants little novelties. My brother and I always eagerly listened for his return, and ran to rifle his pockets. As we grew older we specially longed for a clockwork train, but such had not yet been invented. The only object which moved by clockwork was a model mouse, and we tried in vain to adapt its mechanism to a toy engine. We also learned neatness and accuracy when cutting out the cardboard models of houses and other buildings, which were then sold in sheets. They cost a penny plain, twopence coloured,

and we always had the coloured. My father helped us to put them together, and later on our models extended to a toy theatre. For this there was necessarily a light wooden frame, and we were especially delighted to have a curtain which would roll up and trap-doors which would allow scenery and figures to be pulled up from below. The stage was lighted by foot-lights in front, and I well remember the difficulty of keeping the oil mechanism clean. The wicks were hard to manage, and often produced an amazing smell. Our first play was the universal *Miller and his Men*²⁴.

There were other amusements in which we could only look on. I often watched my father preparing and developing his photographic plates in the darkroom, when he explained the [p. 029] processes so far as I could understand them. At night he often allowed us to look through his astronomical telescope, and we soon became familiar with the appearance of the moon, the rings of Saturn, the phases of Venus, the markings on Mars, and the moons of Jupiter. On winter evenings also we occasionally had the "magic lantern" indoors; on these days we had the joy of assisting in making the oxygen by heating chlorate of potash with oxide of manganese in the retort and collecting the gas in a large gas bag, it was an added thrill to sit on the gas bag when the supply ran low towards the end of the evening. The oxy-hydrogen light was the only one suitable for a lantern in those days. The lantern slides were chiefly photographs of scenery and buildings, but the show always ended with a few comic coloured pictures and chromotropes which enlivened our small minds. One comic slide which never failed in its thrill, was a moving picture of a man sleeping in bed with his mouth open, and a procession of mice entering to be swallowed.

We also of course had the usual outdoor games which we were able to play in the large gardens of each of our grandmothers, and in our vegetable garden at the dye-works, where we could sail toy boats on a stream.

While engaged in these childish pursuits, I was always asking questions which suggested themselves, and developed an inquisitive mood. I think I must have been endowed with a naturally enquiring mind, for I remember vividly an incident which [p. 030] occurred in the year 1870, when I was 6½ years old. I was staying with one of my grandmothers whose cook was specially skilled in the making of brawn. One day a pig's head arrived for the purpose and after studying it with interest, I asked the cook to slit open the outer passage of the ear to show me

²⁴ A very popular romantic melodrama in two acts by Isaac Pocock (1782-1835).

how the animal could hear. I was deeply disappointed when I found that the passage ended blindly, and neither I nor the cook thought of looking further inside for the apparatus I was seeking. Some months afterwards I found a dead mole which I persuaded our cook to skin and boil for me, so that I might prepare the skeleton, which I did. Two sights in the chemists' shops also greatly excited my interest. I was never tired of watching the leeches which were then always kept in water in a glass bowl inside the shop. I looked too, perhaps with some terror, on the great gory model of a human grinding tooth, which often hung over the door to indicate that teeth were extracted there. I therefore conclude that I not only had scientific curiosity, but also had an inborn inclination to the study of natural history.

If I was eager to acquire knowledge, I seem to have been equally disposed to impart it. I made several small efforts at English composition, and quite early I wished to read these aloud and to make speeches to an audience. Almost the only discourses I ever heard were sermons, and in accordance with the usual childish faculty of imitation, I began speaking in the [p. 031] form of sermons. When I could muster an audience of my brother and sisters, and the two servant maids in a sufficiently complacent mood I preached to them from a temporary rostrum in the kitchen and persuaded them before and after my discourse to sing some of the popular Moody and Sankey hymns. At the time I frequently spent part of Sunday evening sitting with my grandmother Woodward, when she was alone in her house, and as she preferred to sit quietly, I amused myself by reading Gadsley's *Wanderings in Egypt and the Holy Land*²⁵. There I picked up most of the material for my little sermons, which were chiefly descriptive, and only needed a few touches from my schoolbooks.

About this time I was beginning to display some inclination towards originality both in literary composition and in scientific enterprise. For five or six years we had spent a summer holiday at Blackpool where I had become interested in the objects on the sea shore and the wild flowers and insects in the fields. I was eager to learn more about them, and in 1876 when we began to spend our annual holiday at Llandudno in North Wales, I was encouraged by the more varied conditions under which I could pursue my hobbies. With the aid of a guide book called, *The Gossiping Guide to Wales*²⁶, I wrote a little account of our first visit to Llandudno and in 1877, at the age of thirteen, as I had now become skilled in working a model printing

²⁵ This probably refers to John Gadsby's *My Wanderings, being Travels in the East in 1846-47, 1850-51, 1852-53*, Gadsby, 1859.

²⁶ A popular series of guides to Wales written by John Askew Roberts, founder of Woodalls Press in Oswestry, north Wales.

press, I printed it page by page in the form of a booklet. This was finished in 1878, and I still think it a [p. 032] creditable piece of English composition without amateurish faults.

It was an incident in our first trip to North Wales that ultimately led to the main occupation of my life. I was walking on the Great Orme's Head²⁷ with my father, when we met an old man, Mr Williams, who then exhibited the Camera Obscura. He had worked in the former copper mines on the Great Orme's Head, and while we were talking with him about his experiences, he brought from his pocket a fossil shell, which he told me had been found deep down in the mountains. He supposed it was a sea-shell which had been buried there when the limestone was soft mud and the sea rolled over the spot. He gave the shell, a Spirifer to me, and it so much excited my curiosity that I began to study geology, and found many helpful illustrations of the subject in the country round my home at Macclesfield.

I first went to School in 1870 when I was six years old. In those days it was customary for a small child to begin at a Dame School, and I attended one in Chester Road kept by an old widow, Mrs Lomas. She had about thirty pupils, both boys and girls, and she taught them herself without any assistant. The schoolroom was furnished with desks in which the school-books could be kept and discipline was enforced with the aid of a birch-rod and the old fashioned dunce's cap. Mrs Lomas wore the usual lace cap of an old lady with a bunch of long ringlets of grey hair hanging on each side. We always closely watched [p. 033] her ringlets because we could recognise her good or bad humour from the way in which they shook. She was an excellent teacher, and I learned the elements of reading, spelling and writing with great ease and thoroughness. She also taught us the multiplication table and the first four rules of arithmetic, besides the outlines of history as given in *Little Arthur's History of England*²⁸. This book and Butler's spelling were still favourites in such a school, and we had a reading book of yet earlier date called *Peep of Day*²⁹. At the end of the first year I won two prizes, which to my small mind were inappropriate; one was entitled *Our Village Girls*³⁰ and the other was *The*

²⁷ Great Orme's Head is a massive promontory of Carboniferous limestone, near Llandudno, north Wales.

²⁸ Written by Lady Calcott (1785-1842). Born Maria Dundas, she was married first to Lt Thomas Graham and after his death, married the landscape painter Sir Augustus Wall Calcott. Her eye-witness account of the 1822 earthquake in Chile (which she wrote as Maria Graham), led to her becoming embroiled in the dispute between George Bellos Greenough (President of the Geological Society of London) and Charles Lyell concerning the formation of mountains.

²⁹ *The Peep of Day* 1833 by FL Bevan was a children's book of religious instruction.

³⁰ by Hetty Bowman, 1863.

*Basket of Flowers*³¹. I still look at them occasionally with curiosity, but I have never read them. Parents were of course invited to the annual prize-giving, when the whole gathering was regaled with little cakes and cowslip wine.

The year 1870, was marked by the passing of the Education Act, which made attendance at school compulsory for all children over five years of age. I have a vivid recollection of the Education Officer who called to enquire whether I attended school, for I was introduced to him and was able to assure him that I was already a pupil of Mrs Lomas.

In those days it was common for any unfortunate person who had lost other means of livelihood to start a private school. He or she need not have any special qualifications for educational work, but only needed a circle of friends to provide [p. 034] pupils. There happened to be such an unfortunate man in Macclesfield when I was ready to leave the Dame's School, and I was then transferred to a so-called preparatory school which he had just started. There I had to spend about three years without making much progress, and I was glad when I was old enough to proceed to the Macclesfield Grammar School in 1876.

This was then an old-fashioned classical and mathematical school, with a considerable number of boarders in the houses of the Head Master and Second Master. There was a Modern School associated with it, but this was in a separate building in another part of the town. We smaller boys regarded ourselves as in a superior position, and rather looked down on the commercial education at the other school.

During my time at the Grammar School, the Head Master was the Rev. Darwin Wilmot, a descendant of Dr. Erasmus Darwin³², whose Commonplace Book he inherited, and eventually gave to the Charles Darwin Museum at Downe House, Kent. He was a learned Oxford Classic and rather deprecated any change in the old scheme of a classical education. With some reluctance during one term he admitted a course on elementary physics by Prof. T. H. Core, of the Owens College, Manchester, but he took care to arrange this immediately after the usual school hours. For a longer period he allowed lessons in singing by the Tonic-sol-fa method, but these also were immediately after school [p. 035] hours. In addition he introduced drilling exercises with dumb-bells, in the school grounds, and these too were naturally outside school hours. He made only one concession, that the study of Greek was optional; and as my father

³¹ This was a translation from the German from 1869. Its full title was *A Basket of Flowers or Piety and Truth Triumphant*, which could explain its lack of appeal to a small boy.

³² Dr Erasmus Darwin (1731-1802), physician and natural philosopher and Charles Darwin's grandfather.

thought that Greek was superfluous I was one of the non-Greek boys. The Second Master, who taught mathematics, was the Rev. S. G. Waters, who afterwards became Head Master of the Nuneaton Grammar School. He had some interest in Science and towards the end of 1877 he formed a class of boys who did not learn Greek, to begin a course of Geology. He started at the beginning with Archibald Geikie's little *Primer of Geology*³³, and then induced the Head Master to purchase a cabinet of common rocks and fossils so that he might give practical teaching with David Page's *Elementary Textbook of Geology*. As I have mentioned I had already made some progress in geology in the field, and at the examination in 1879 I obtained full marks, thus winning a special prize, which was the newly published *Life of Robert Dick* by Samuel Smiles.³⁴ In the Annual Report of the School for 1879 I was gratified to read the following remarks by the Examiner:- "I desire to speak in high praise of the paper by Woodward. It showed that he must have devoted careful and accurate study to the subject and had thoroughly mastered its groundwork. The style of his answers also, pleased me very much, being, to a great extent, free from that baldness which is too frequently conspicuous in written answers to questions. He was at the same time concise, lucid, and to the point."

During most of this time I incurred the displeasure of [p. 036] the Head Master by spending most of my half-holidays in geological and natural history rambles instead of joining the games of football and cricket in the School playground. There happened to be another boy at the Modern School, Conrad Gerland, who was also interested in natural history and geology, and for about three years he and I made excursions together. Gerland, afterwards Ph.D. and F.C.S. became an industrial chemist at Accrington.

As there was so little science at the Grammar School, my brother and I attended some of the classes of the Science and Art Department which were held on Saturday evenings during the winter under the auspices of the Useful Knowledge Society. Our special subjects were Electricity, Magnetism, Acoustics, Light and Heat. The classes were attended chiefly by artisans and others who were well occupied during the week. I remember especially four silk weavers,

³³ Sir Archibald Geikie FRS (1835-1924), the influential geologist and historian of geology, worked under Sir Roderick Impey Murchison (1792-1871) at the British Geological Survey. He became its director in 1882. He retired after a highly successful career to Haslemere in Surrey where the local museum contains an extensive archive of his material.

³⁴ Robert Dick (1811-1866) of Thurso, Caithness in the north of Scotland was a baker by trade but also an important amateur geologist. Extremely shy by nature he nevertheless provided valuable insights to the local geology for both Hugh Miller and Sir Roderick Impey Murchison. The placoderm *Microbrachius dicki* was named after him. This upper middle Devonian fish was recently described (see *Nature*, 24th October 2014) as exhibiting characters associated with the earliest known example of copulation between two sexes.

a brewer's manager, an accountant, and a bank clerk. The teaching was excellent and illustrated by ample experiments, for our teacher was Mr. W. W. Haldane Gee, who was afterwards joint author with Prof. Balfour Stewart of a Text-book of Practical Physics³⁵, and eventually became Vice-Principal of the Manchester Technical School. I obtained several prizes and as I was allowed to choose my books in this way I made a beginning of my scientific library.

In connection with the Science classes of the Useful Knowledge Society, there was a Scientific Students' Association, [p. 037] which gave me an opportunity for both literary composition and public speaking. I communicated to it several papers on botany, zoology, and geology, which included personal observations, and one of these on "How to construct a Herbarium" was printed in the weekly newspaper *Gardening Illustrated* in June 1880. This was my first published scientific paper. I had already given my first public lecture on March 17, 1880 in the schoolroom attached to Trinity Wesleyan Chapel. It was entitled "The World before the Deluge" and was illustrated chiefly by a series of coloured lantern slides of fossils and restored landscapes copied from Figuier's *World Before the Deluge*³⁶ which were lent to me by a Wesleyan friend, Mr John Potts. For it however my father had prepared a special slide showing the most important local fossils which I had already collected. My father also worked the lantern.

In 1880, the Owens College Manchester was the first college to be incorporated in the new Victoria University of Manchester. In that year, therefore, the Governors of the Macclesfield Grammar School re-considered their scheme of scholarships and decided to establish one for Manchester in addition to their usual scholarships for Oxford and Cambridge. They made the first award of this scholarship to me, but their estimate of the financial needs of a student at Manchester was so much less than the reality that my father ignored it, and gave me the small sum (altogether £30) to add to my first financial investment.

[p. 038] I became a student of the Owens College, Manchester, in October 1880, but my father did not wish me to proceed with the ordinary course for a university degree. He had been much impressed with the success and well-being of Mr George J. Snelus³⁷ (afterwards F.R.S.) who had recently married his cousin, and attained a high position as a Metallurgical

³⁵ This may be *Practical Physics for Schools and the Junior Students of College*, 1888.

³⁶ Guillaume Louis Figuier (1819-1894) was a French scientist and writer. *La Terre Avant le Déluge*, 1863, was first translated into English in 1872.

³⁷ George James Snelus (1837-1906) was a British metallurgist who made significant improvements to the manufacture of steel. He attended Owens College where he came under the influence of Professor Henry Roscoe.

Chemist. He therefore wished me to make a speciality of Chemistry, which was then directed and taught by Prof. (afterwards Sir Henry) Roscoe, who had attracted an international group of students to Manchester. I took all the necessary subjects, including German, but at the same time I was allowed to attend the geology class under the direction of Prof. (afterwards Sir William) Boyd Dawkins. I always intended, if possible, to make my career in geology rather than in chemistry, and I came in close association with Prof. Boyd Dawkins when I attended his series of field excursions. I studied at the college for two years, and obtained prizes in Chemistry, Mineralogy and Geology, which enabled me to choose more books for my scientific library. I was especially glad to receive from Prof. Boyd Dawkins a copy of his *Cave Hunting* as a prize for the best notebook on geology. In later years I came in close contact with both Sir Henry Roscoe and Sir William Boyd Dawkins and counted them among my best friends until they died.

During the latter part of my studies of Mineralogy and Petrology under Dr. C. A. Burghardt, I assisted him to arrange in [p. 039] a cabinet the collection of the late James D. Forbes³⁸, which had been acquired by the University. I thus became much interested in minerals, and made a special search for them in the country round Macclesfield. One day I found some little fissures in the Yoredale Rocks containing rootlets which had been encased with hydrated oxide of manganese (Wad). I made a chemical analysis of the material, and wrote an account of this curious discovery which was communicated to the Literary and Philosophical Society of Manchester by Dr. Burghardt in April 1882. This was my first original paper read to a scientific Society and I was proud to find it reprinted in the *Chemical News*³⁹. Among the members present at the meeting was Mr. H. H. (afterwards Sir Henry) Howorth, who was then M.P. for Salford. After his removal a few years later to Kensington, London, he became a life-long friend⁴⁰.

At the end of my two years' studies in the Owens College Prof. Boyd Dawkins showed me a letter which he had received from Prof. Archibald Liversidge, of the University of Sydney, stating that there was a vacancy in the Geological Survey of New South [p. 040] Wales, and asking whether he could recommend a suitable candidate. Prof. Boyd Dawkins offered to

³⁸ James David Forbes (1809-1868), physicist and geologist.

³⁹ 'On the Occurrence of Oxide of Manganese (Wad) in the Yoredale Rocks of East Cheshire'. *Proc. Manchester Lit. Phil. Soc.* 21, 115-124, 1882. Reprinted in *Chemical News, Lond.* 45, 241-243, 1882.

⁴⁰ Sir Henry Hoyle Howorth (1842-1923) wrote extensively on a variety of subjects including geology, archaeology, history and religion. He was a FRS and FSA.

recommend me, if my father and mother approved, but they were disinclined to allow me to go so far away. It is interesting to note that on the recommendation of Prof. (afterwards Sir Joseph) Prestwich⁴¹, his pupil, T. W. Edgeworth David (afterwards Professor Sir Edgeworth David) filled the vacancy⁴². While my parents were still considering the proposal, my father happened to visit his friend Mr. Philip L. Brocklehurst of Swythamley Hall, and there he picked up a number of *The Field*⁴³ containing an advertisement for an Assistant in the Geological Department of the British Museum.



Fig. 8. The advert in *The Field* newspaper. (Image courtesy Mike Smith)

He copied the advertisement and suggested that I might prefer to apply for that post. I accordingly wrote for particulars to the Principal Librarian of the British Museum, and as I thought I might have success in the examination I decided to proceed with an application. The Principal Librarian informed me that I could not become a candidate without the permission of one of the three Principal Trustees, the Archbishop of Canterbury⁴⁴, the Lord Chancellor⁴⁵, or the Speaker of the House of Commons⁴⁶. My only access to these dignitaries seemed to be through Sir Philip Cunliffe Owen, of the South Kensington Museum, who was a special friend of Sir Thomas Wordle of Leek, and Mr. J. O. Nicholson of Macclesfield. Both these local friends

⁴¹ The geologist Sir Joseph Prestwich (1812-1896).

⁴² The geologist Sir Tannatt William Edgeworth David (1858-1934). He remained in Australia.

⁴³ *The Field* called itself 'The Country Gentleman's Newspaper'. The advertisement for the Museum was in amongst advertisements for guns, cowmen and gamekeepers. First published in 1853 *The Field* is still published today making it the world's oldest such magazine.

⁴⁴ Archibald Campbell Tait (1811-1882) was the first Scottish Archbishop of Canterbury.

⁴⁵ Roundell Palmer, 1st Earl of Selborne (1812-1895) was Lord Chancellor under Gladstone's first two periods as Prime Minister (1868-74, 1880-85).

⁴⁶ Henry Bouverie William Brand, 1st Viscount Hampden (1814-1892), Speaker from 1872-1884.

wrote on my behalf to Sir Philip Cunliffe Owen, and he arranged with the Archbishop of Canterbury (Dr Tait) to give me the requisite nomination.

[p. 041] When the examination was held at the Civil Service Commission offices in Westminster, for a whole week in the early summer of 1882 I found that I was the youngest of fourteen competing candidates who had been nominated. We had not only the ordinary Higher Civil Service Examination, but also a special practical examination in geology, and we had to deal with a large collection of fossils answering questions asked by Prof. P. Martin Duncan⁴⁷. In due course I had the satisfaction of learning that my marks were the highest, and therefore I received the appointment. I began my duties at the Museum on August 24th 1882.

When I presented myself to the Keeper of Geology (Dr. Henry Woodward) he was not inclined at first to welcome my appointment. For some time he had employed a young man, George C. Crick⁴⁸, who had been trained as a Science Teacher at the Royal College of Science. This young man wrote labels in excellent handwriting and was skilled in mounting fossils neatly for exhibition. He seemed to be exactly the type of assistant needed for the rapid making of an exhibition collection in the then empty galleries of the new Natural History Museum. The Keeper had therefore recommended the Trustees to appoint Crick without competitive examination. When they refused to do so, and selected several candidates to compete with him, he happened to be low down in the list of those who had successfully passed, and thus had to make way for me. I was also at a disadvantage in another way. Dr. Woodward did not approve of having a name-[p. 042] sake on his staff, and he told me he had been considering the possibility of my changing my name; he thought however that if I called myself Smith Woodward, this solution of the difficulty would suffice. After a few months the Keeper began to realise that I could mount fossils as neatly and quickly as the temporary assistant whom he had employed, and could write the labels in nearly as good a style. He also observed that I was actively engaged in studying the fossils outside official hours, and was keenly interested in scientific research. At the end of my year of probation he therefore recommended the confirmation of my appointment, and I became a regular member of the staff.

It may be remarked that for a short time Crick was employed by a curious man in the north of London who had a large private collection of fossils, and styled himself Prince of

⁴⁷ Peter Martin Duncan (1824-1891), professor of Geology at Kings College and Cooper's Hill College in Egham (which trained Indian Civil Engineers).

⁴⁸ George Charles Crick (1856-1917).

Mantua and Montferrat⁴⁹. Dr. Henry Woodward however obtained for Crick another post as Clerk and Assistant-Secretary to a Royal Commission on Accidents in Mines, which had just been appointed by the Government. He continued as Clerk until the Commission completed its Report in 1886, and then Dr. Woodward further recommended his transfer to a permanent assistantship in the British Museum. The Trustees now agreed to the appointment, and Crick remained as a rather hum-drum curator of the fossil shells of Cephalopoda until his death in 1917. Thus in those days were the regulations of the Civil Service Commission and the Trustees of the British Museum circumvented.

[p. 043] In 1882 the whole of the collection of fossils had already been removed from Bloomsbury to the new museum but a large proportion of the packing cases were still stored unopened. Some of the exhibition galleries were empty, but now that the whole collection had been transferred the Keeper was planning the display for the public. The fossil mammals and birds had been provisionally arranged in the large front gallery, and the so-called pavilion beyond in accordance with the original scheme. The fossil reptiles and amphibians had also been arranged in the parallel long narrow gallery which had been designed for them behind. The three large galleries extending at right angles further back which had been intended for the rest of the collection were now considered to be inadequate. According to the original plan they alternated with three narrow galleries and one large gallery which were enclosed by mahogany doors. There was also a corridor still further behind intended to facilitate the access of the public from the far end of one public back gallery to that of another. The galleries enclosed by the handsome doors were designed for the unexhibited collections of invertebrate fossils, which were to be used only by special students and the scientific staff who were to have work tables adjacent to the cabinets. It was even thought at first that the wall-cases in the public exhibition galleries should be enclosed like shop windows, and arranged from behind through doors in the wall of these alternating private galleries. Fortunately this proposal was abandoned [p. 044] before the walls were built, but a modification of it still survived during my time in the wall-cases of the Botanical Department. The capacious storerooms intended for the unexhibited vertebrate fossils were in the front basement underneath the public gallery of fossil mammals. The garden in front of the Museum had not yet been laid out, and it was intended to mask these and all the other basement store-rooms by building a wall which would

⁴⁹ Charles Ottley Groom Napier (1839-1894), collector of minerals, plants and fossils, many of which ended up at the Natural History Museum.

form what the Londoners call an area in front of them. The garden lawns would then slope upwards to the top of this wall on the level of the first floor of the Museum, and the ornamented storeys above would then be seen from the road. To avoid the darkness of the basement rooms which this arrangement would have caused the architect was induced to abandon this plan, and consequently the Keeper of Geology was able to use the basement premises not only as stores but also as workrooms and studies. The original design for the external appearance of the Museum was in this way completely altered⁵⁰.

The addition of basement work-rooms solved some of the difficulties of the Keeper of Geology, and he decided to add two of the private narrow back galleries to the public exhibition galleries. He was also troubled by lack of provision for a Departmental Library, and the Superintendent's⁵¹ plans for the room behind the Central Hall had equally done away with the provision of accommodation for the General Library. The darkest of the private narrow back galleries in the Department of Geology which [p. 045] was adjacent to the Central Hall was therefore fitted on one side for the books of the General Library, and on the other side for those of the Geological Library. The back communication corridor, with its stained glass windows, was taken from the public, and used as a row of work-rooms among storage cabinets of invertebrate fossils. Eventually the two communication corridors, again with stained glass windows, between the gallery of fossil mammals and that of fossil reptiles were fitted with exhibition cases, and that nearest the Central Hall was provided with sky-lights in the roof to replace the obliterated side windows. These various re-arrangements made possible a much larger public exhibition of fossils than had been originally planned.

I was assigned the task of helping the Senior Assistant, Mr William Davies⁵², in arranging the fossil vertebrates, and began by mounting and labelling the smaller specimens of fossil reptiles which Mr Davies had selected for exhibition in the table-cases. Only a small proportion of these specimens were really of value for exhibition and as larger exhibits of fossil reptiles were gradually acquired the number of table-cases was reduced, and the less important specimens were placed in drawers. I also helped in mounting and labelling many remains of

⁵⁰ There are some useful books on the history of the Natural History Museum, including William T Stearn's *The Natural History Museum at South Kensington*, 1981, and Mark Girouard's *Alfred Waterhouse and the Natural History Museum*, 1999, both published by the NHM. There is also some information on the Museum's website: <http://www.nhm.ac.uk/visit-us/history-architecture/>.

⁵¹ Sir Richard Owen, (1804–1892), the great comparative anatomist, was the creator of the new Museum and its first and last Superintendent. His successor's title was, as it still is, Director.

⁵² William Davies (1814–1891), a stalwart of the British Museum with wide knowledge of natural history and a skilled preparator of fossils. He was an important mentor to the young Smith Woodward.

mammals and birds. My chief attention however was soon directed to the great collection of fossil fishes which Mr Davies was just beginning to arrange in the newly fitted gallery No. 6. The [p. 046] collections of the late Sir Philip Egerton and of the Earl of Enniskillen⁵³ had just been received, and Mr. Davies was registering them for incorporation with the fossil fishes already in the Museum. I helped him in the preparation of the specimens both for exhibition and for arrangement in the drawers of the cabinets. I mounted and labelled all the fossil fishes which were in the table-cases, and also wrote labels for most of those in the wall-cases. While thus occupied I became specially interested in fossil fishes, and after attending Dr. R. H. Traquair's Swiney lectures⁵⁴ on the subject in the autumn of 1883, I soon acquired a good knowledge of them. I still had to continue work on the exhibition of the other fossil vertebrates, but there were so many novelties in the unique collection of fossil fishes that I decided to make that my speciality.

At the time I was devoting my leisure, especially in the evenings, not only to studying the literature of fossil vertebrates, but also to preparing for the London University degree of B.Sc. In 1885 I passed the London Matriculation Examination in the first division and after a practical course in Comparative Anatomy and General Biology in evening classes at King's College, Strand, I passed the Intermediate Science Examination in the first division in 1886. My studies of fossil fishes however had not been neglected, and I was gratified a little later when the Keeper of Geology suggested to me that I might prepare an exhaustive Catalogue of Fossil Fishes to be published [p. 047] by the Museum. I accepted this proposal and decided that instead of proceeding to the University Degree, I would spend all my spare time in the original research needed for such a catalogue. My own private library was still comparatively small, but I found most of the scientific books I wanted in the Science Library of the old South Kensington Museum⁵⁵ which was open on two or three evenings of the week.

⁵³ Sir Philip de Malpas Grey Egerton (1806-1882), and the Earl of Enniskillen (1807-1886) were both great collectors. Friends from Oxford University, together they travelled to Germany, Switzerland and Italy in pursuit of fossil fish. They collected jointly throughout their lives, each amassing extremely large and complementary collections, both of which were bought by the NHM.

⁵⁴ Ramsay Heatley Traquair (1840-1912) was a Scottish palaeoichthyologist who built up an extensive collection of fossil fishes at Edinburgh Museum of Science and Art during his 33 years of tenure there. He was Swiney Lecturer on Geology at the BM(NH) for a total of 14 years despite the "poorness of the lecturer's delivery" (White, E. I., Obituary, Sir Arthur Smith Woodward, *Proc. Linn. Soc.*, 156, 1943-44, Pt. 3, 21 August 1945, 238-242.) and the lectures being "illuminating, if somewhat dreary" (White, E. I., Obituary Notices, Sir Arthur Smith Woodward, *Quart. Jnl. Geol. Soc.*, vol. ci, parts 3 & 4, xliii-xlvi).

⁵⁵ Established in 1852 as the Museum of Manufactures, it moved to Cromwell Road in 1857 and was renamed the South Kensington Museum. In 1899, it became the Victoria and Albert Museum.

In the course of my reading and my casual study of the fossils exhibited in the museum, I accumulated a large collection of notes which I used in the writing of some general articles. Between 1884 and 1886 I contributed little articles on British Fossil Birds⁵⁶ and on Fossil Sharks and Rays⁵⁷ to *Hardwicke's Science Gossip*, and in November 1885 I published my first paper in the *Geological Magazine*⁵⁸ on "On The Literature and Nomenclature of British Fossil Crocodilia"⁵⁹. In December 1885, I read my first paper to the Geologists' Association, on "The History of Fossil Crocodiles", and this was printed in its *Proceedings* in the following year. Henceforth my little papers were numerous and recorded chiefly the results of original research. In 1886 I read my first paper to the Zoological Society on "On The Relations of the Mandibular and Hyoid Arches in a Cretaceous Shark (*Hybodus dubrisiensis*, Mackie)"⁶⁰; and in 1887, I read my first paper to the Geological Society on "On The Dentition and Affinities of the Selachian Genus *Ptychodus*, Agassiz"⁶¹. In 1890 my paper on "A new Theory of *Pterichthys*"⁶² in the *Annals* [p. 048] and *Magazine of Natural History* attracted the notice of Prof. (afterwards Sir) E. Ray Lankester⁶³, who soon became a life-long friend.

After the retirement of Mr. William Davies in 1887 I was for a few years the sole assistant in charge of the fossil Vertebrata until the appointment of Dr. Charles William Andrews⁶⁴ who shared the duties with me. It was at this time that I learned by experience to deal tactfully with the general public. One day there walked into the Department a buxom Irishwoman, who carried a parcel under her arm and said that she had a skull of an Irish Elk for sale. I was duly sent for and inspected the skull when the parcel was opened. I rather hastily remarked that

⁵⁶ 'A Chapter on British Fossil Birds'. *Science Gossip*, **19**, 222-223, 241-243, 1883.

⁵⁷ In eight parts: 'Chapters on Fossil Sharks and Rays. I *Science Gossip*, **20**, 172-174, 1884; II, **20**, 227-230, 1884; III, **20**, 267-272, 1884; IV, **21**, 106-109 1885; V, **21**, 154-156, 1885; IV, **21**, 226-229 1885; V, **21**, 270-273, 1885; VI, **22**, 4-6, 1886. (Note the mis-labelling of the sixth, seventh and eighth parts).

⁵⁸ The editor of the magazine was Dr Henry Woodward (1832-1921), Keeper of Geology at the Natural History Museum.

⁵⁹ 'On The Literature and Nomenclature of British Fossil Crocodilia', *Geological Magazine*, (3) 2, 496-510, 1885.

⁶⁰ 'On The Relations of the Mandibular and Hyoid Arches in a Cretaceous Shark (*Hybodus dubrisiensis*, Mackie), *Proc. Zool. Soc.* (1886) 218-224, 1886.

⁶¹ 'On The Dentition and Affinities of the Selachian Genus *Ptychodus*, Agassiz', *Abs. Proc. Geol. Soc.* (1886-1887) 26-27, 1886.

⁶² 'A new Theory of *Pterichthys*', *Ann. Mag. Nat. Hist.* (6) 6, 314-316, 1890.

⁶³ Sir Edwin Ray Lankester (1847-1929) was an eminent zoologist, expert on the early armoured fishes (Cephalaspidians) and Director of the British Museum (Natural History) from 1898-1907.

⁶⁴ Charles William Andrews (1866-1924) was a schoolmaster before entering the Museum in 1892. He was a brilliant palaeontologist, specializing in fossil birds. He was elected FRS in 1906. His health deteriorated however, and his death in 1924, coinciding with ASW's retirement, was a serious blow to the Geology department.

the skull was really that of a horse, which had been buried, and its identification with the skull of an Irish Elk was a mistake. The fearsome lady became extremely valuable and was inclined to denounce me asking whether she could not see someone else. I told her she could not have that satisfaction because I was the special authority on the subject. She walked away muttering, and I always replied to future enquiries with less decision, softening possible disappointment by some preliminary hesitation.

Tactful talks with the public who were ready to discuss fossils were always interesting and were often profitable to the Museum. When I began to prepare the *Catalogue of Fossil Fishes*, one of my kind friends was Mr. George H. Piper, F.G.S.⁶⁵ of Ledbury who had made a large collection of Silurian and Devonian [p. 049] fossils from his neighbourhood. I enjoyed frequent visits to him, and coveted specially the new fossil Cephalaspidian fishes which he had obtained from the cutting at Ledbury railway station. He was a great admirer of Queen Victoria, and on each visit I used to pick out one or two choice specimens with the remark that Queen Victoria would much like to have them. He always replied "So she shall – God bless her!" and I accordingly returned to London with them in my bag as a gift for the Museum. The fossil Cephalaspidians which he thus gave to the Museum are still unique. Sometimes a donor was overwhelming in his desire to enrich the collection of the Museum. When Mr George Clifton⁶⁶ retired from the Governorship of Portland Prison in 1889, he brought the whole of his collection of fossils as a gift to the Museum. He regretted however that his finest fossil fish, a nearly complete specimen named *Thrissops portlandicus* had been stolen, and he could offer only a photograph of it. We thanked him for his good intention, and were able to assure him that this fine fossil was already in the Museum having been received from another generous donor in the previous year⁶⁷.

Our talks to parties of scientific societies when they visited the public galleries also occasionally resulted in valuable gifts. Shortly before my retirement I was demonstrating the fossil remains of elephants to a party of the Geological Association⁶⁸, when I remarked that I

⁶⁵ See the chapter on ASW's contribution to the BM(NH) fossil fish collection (Smith 2015).

⁶⁶ George Clifton (1823-1913) was an officer in the Royal Navy before emigrating to Australia in 1851, where he was among other things a police inspector and senior prison officer. On his return to Britain he entered the prison service and became Governor of Portland Prison, Dorset. His collection included algae from Western Australia.

⁶⁷ Rather careless of a prison governor! The specimen referred to is the type specimen of *Thrissops portlandicus* presented by F. Harford Esq. in 1888 and described and figured by Smith Woodward in *The Catalogue of Fossil Fishes in the BM(NH)*, Part III, p. 525, Pl. XVIII, fig. 4, 1895.

⁶⁸ ASW is presumably referring to the Geologists' Association.

could not show them the newly discovered skeleton of *Elephas antiquus* from Chatham, because [p. 050] the bones were stored in the dark basement, and could not be exhibited until funds allowed the necessary iron framework to be made. After the demonstration, Dr. W. Rushton Parkes asked me whether a gift of £100 would provide this important mount, and when I replied that it certainly would do so, he produced a cheque for the purpose. The Chatham Elephant was therefore soon available for study and inspection, a worthy memorial of his generosity. See Figure 9.



Fig. 9. Work proceeding on the construction of the support frame for *Elephas (Palaeoloxodon) antiquus*, found at Upnor near Chatham in Kent in 1911 and excavated by Dr. Charles Andrews in 1915. It finally went on show in 1927, three years after ASW's retirement. (© The Trustees of the Natural History Museum, London)

These talks with the interested public were sometimes amusing episodes. One day a Norfolk landowner Mr. Victor Ames, brought a large piece of flint from the chalk which was curiously shaped like a coiled serpent, but was broken at one end. He pointed to this break and

apologised for the carelessness of his workmen, in having broken off the head. We had delicately to explain that the shape of the flint was deceptive, that it was not a fossil snake, and that no head had ever been there. The most strangely deceptive geological specimens, however, that I remember, were two septarian nodules, one broad and short the other elongated and both marked by rectangular ridges which were formed by the septa. These two nodules were brought by a dealer in Italian sausages, who produced two samples of his wares showing exactly the same shapes and the same cross-markings in the binding string. It was difficult to convince the merchant and his companion that sausages could not be fossilised under the conditions which formed the septarian nodules. They were [p. 051] reluctant to abandon the idea which they had formed, that sausage-making dated back to a distant geological period when even the brands with which they were familiar already existed. More serious propositions also sometimes had their amusing side. A veteran geological friend, who had once been on the Geological Survey, called to announce that he thought he had discovered the origin of the wedding ring in pre-historic times. He produced a tubular piece of flint formed round a rod-shaped sponge which had decayed and fallen out. It was just large enough to accommodate a human finger, and he thought that such a stone must have attracted the notice of pre-historic man. A little imagination would suggest to the early mind that such a flint might be used to symbolise the union between a man and wife. The man would push his finger into one half, and the woman would push hers into the other half of the tube, and an obliging friend would then crack the flint across leaving one half on the finger of each of the contracting parties. A ring on the finger would henceforth be the badge of the married state.

[p. 052] Here this record came to an end and lay for several years a memory alone.

The narrative here reverts to Maud. The chronology is not exact. Their travels together obviously came after ASW's early years in the Museum.

Turning over the shoe-box full of letters written mainly to my mother on the many journeys we made yearly to help my husband in his research work, it seemed as if I might be able to make a record of some interest from them. Conditions of travel and even of daily life have changed materially in the sixty years which have passed since we began to travel together on the errand to see more and ever more specimens of every sort of backboneed fossil animals. These journeys often took us to small towns and little visited corners of the great and

wonderful world. Spain, for instance, had not become a tourist haunt, there were almost no roads, the primitive tracks still answered all the needs of the country people. We got about the country by native cart or on donkeys along steep mountain roads to visit quarries where we always hoped to find worthwhile specimens. These journeyings were always full of hope frequently disappointed, but always carrying on to the next occasion – a great life of many sided interests and strong friendships.

[p. 053] The young man, hardly more than a boy, for he was just past his 18th birthday when he entered the Museum, lived hardly in uncomfortable lodgings, his budget reported in his weekly letter to his mother showed the smallest possible expenditure on a meagre diet and included a visit to the public baths. He contrived to keep within the narrow limits of his income and each week put away in the Savings Bank a small sum which was usually two shillings in the earliest days though it increased as years went by; the habit was never entirely given up. He had of course to go to work in a frock coat and silk hat, a universal uniform for professional people. The first year was not a happy one; but he had obtained the opportunity he most desired, of devoting his life to geology, and he was firmly determined to make the very most of it and to justify his choice. The hostile atmosphere and attitude of his chief long endured, though eventually he was obliged to recognise the value of the young assistant, and his ability. During that first year the young man had no friend, he spoke to no one from the time when he left the museum until he returned next morning. At the end of that time friends of his parents, Mr. and Mrs. Walter Brocklehurst⁶⁹, learned of his loneliness and invited him to their town house in Hyde Park Square for Sunday dinner from time to time. He found his way to the Science Library of the South Kensington Museum and read [p. 054] there on those evenings when it was open. Then an opportunity came with an introduction to the Geologists' Association, for making acquaintances among both professional and amateur research workers. He quickly took an active part in the debates and excursions, and the friendships he made soon led to further activities with the Battersea Field Club and other similar societies. He grew a

⁶⁹ William Walter Brocklehurst, was born in Macclesfield in 1829. In the census for 1881, when he is living in Hyde Park Square, he describes himself as 'retired Australian squatter'. According to the Australian National University (http://andc.anu.edu.au/australian-words/meanings-origins?field_alphabet_value=241), 'in early nineteenth-century Australia a **squatter** (first recorded 1828) was also a person who occupied Crown land without legal title, and then any person who grazed livestock on a large scale. Squatters became wealthy and powerful, and the term **squattocracy** (recorded 1843) alludes to their aristocratic pretensions'. Whether Brocklehurst had such pretensions is unknown, but by 1891, the census simply records, 'Living on own means'. He was almost certainly a relative of the Macclesfield Brocklehursts, two generations of whom were Members of Parliament for the town.

beard to try to hide his youth, and when pressed to join the Geological Society he would not confess to being under age, but did join as soon as he legally could. He attended as a guest meetings of scientific societies where he could get introductions, and as his finances improved joined the Zoological and Linnean Societies of London.⁷⁰ He took an active interest in each of these societies, joining in debates, contributing to their publications, winning recognition for his work and becoming eventually an office holder and valued councillor.

As soon as his appointment at the Museum was confirmed and it seemed likely that he could devote his life to the study of fossils, he began to spend all available holidays in travel to aid his researches. The prize which he had received at school, *The Life of Robert Dick*, the Thursoe baker, had made him long to visit Caithness where the fossil fishes of the Old Red Sandstone are found. In the autumn of 1884 he was able to make this pilgrimage to Thursoe and to meet the survivors of the little circle who had made the early discoveries. He was much [p. 055] impressed by the, to him, strange country with its storm-worn cliffs where many of the fossils were found.

This pilgrimage to Scotland in order to gain first-hand knowledge of the localities where the fossils which he was studying at the time were to be found, and where he was following the footsteps of the pioneer workers in the subject, was the first of a life-time's passionate journeyings for knowledge and more knowledge of the subjects of his studies, and the men who had gone before him, or those who, like himself, were ever eager for fresh and wider experiences.

As his opportunities and means allowed he visited quarries and sections all over the country where further material and specimens might be found. He made the acquaintance of the curators of as many local museums as possible, obtaining in this way access to much valuable material for his studies. By joining the excursions of various Field Clubs he made the acquaintance of many enthusiastic collectors, whom he frequently induced to present their treasures to the National collections, indeed he came to have such an acquisitive reputation that it was said that if he wanted a specimen for the British Museum, it would be found there sooner or later.

⁷⁰ Although he did not become a member until 1891, he first attended meetings in 1882, introduced by William Fawcett (1851-1926), a botanist at the NHM from 1880 to 1885, when he moved to Jamaica to work on the flora of that country.

The experience of the Scottish journey turned his observations mainly to the early armoured fishes some of which assumed a crustacean appearance and others could possibly have given rise to land creatures had circumstances been favourable, [p. 056] thus directing his thoughts to the more philosophical side of his studies.

In the following year, 1885, he paid his first visit to the continent, a great undertaking for him, the necessary saving up was hard. He very wisely took advantage of an excursion arranged by the Geologists' Association with the active help of the Belgian geologists. The party travelled over the greater part of Belgium, visiting all the more notable geological localities as well as the museums. In this way he paid a visit, the first of many, to the Royal Museum of Natural History in Brussels, where he was able to study the collections of fossil fishes and reptiles, more especially the great collections of the remains of Iguanodon at the time being prepared for exhibition. He made the acquaintance of Dr. Louis Dollo⁷¹ who became a life-long friend and a regular correspondent. Dr. Edward Dupont showed to the party his collection of mammalian bones as well as his collection of stone implements from the caves of Belgium, thus early in his career the young man had his attention directed to remains of earliest man as well as those of old time animals.

This initial journey to the continent was soon followed by a prolonged tour of Germany, during which he made the acquaintance of many elderly pioneers of science who survived, and with whom he was able to have helpful discussions. In particular he visited Munich where Dr. Karl von Zittel⁷² had [p. 057] attracted an international group of students, for the collections in the old Museum there were more readily accessible and more conveniently studied than in any other museum in Europe. Dr. von Zittel invited the young Englishman to join a party of his students in the field, and this excursion to the Wendelstein and the Bavarian Alps remained as a happy memory for the rest of his life.

Although his main object in thus travelling was to study the fossil fishes in continental museums in order to help him in preparing the *Catalogue of Fossil Fishes in the British Museum*, he was told that the study of specimens elsewhere than in the British Museum was not official work and must be carried on in his ordinary vacations, if at all, and at his own expense. In spite of this discouraging announcement he continued his comparative studies for the Museum

⁷¹ Dr Louis Dollo (1857-1931), vertebrate palaeontologist. See the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

⁷² Dr. Karl von Zittel (1839-1904), pre-eminent German palaeontologist and author of the widely used *Handbuch der Palaeontologie*. ASW translated the section on fossil fishes for the English language edition.

Catalogue, visiting all the larger collections in Europe and in 1889 going to Russia through Sweden where he met the eminent Arctic explorer and mineralogist, Dr. Adolf Erik Nordenskiöld⁷³, who showed him the so-called black diamonds.⁷⁴ He visited St. Petersburg and went as far as Moscow where Professor and Madame Pavlow⁷⁵, took him on a short collecting trip, the results of which he brought back together with a piece of mammoth skin from the frozen tundras of Siberia as a gift to the British Museum.

By 1890 he was ready to visit the United States. As his salary was still only £180, his father agreed to pay his [p. 058] expenses. The many scientists to whom he had introductions entertained him generously, for they were already acquainted with his contributions to scientific journals. He travelled as far as the limited time and means allowed, having gained much information from the various museums and still more valuable personal contacts. Each year thereafter he spent several weeks visiting and re-visiting European museums and universities where he gathered much comparative material, and learnt much about museum lay-out for students as well as for public display.

⁷³ Dr. Adolf Erik Nordenskiöld (1832-1901) whose exploits were famous, made numerous trips to the Arctic, studying glaciation, geology and natural history.

⁷⁴ This probably refers to small diamonds occurring as a finely crystalline aggregate in Sakha Republic, Eastern-Siberian Region, Russia that are used for industrial applications e.g. abrasives.

⁷⁵ Alexei Petrovich Pavlow (1854-1929) was a leading Russian geologist and palaeontologist, as was his wife Maria (1854-1938). See the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

PART II - Sir Arthur Smith Woodward's visit to the American University in Beirut as recounted by Lady Smith Woodward; their trip to Beirut and the fossil fish quarry at Hajula in 1926 and their travels with the International Archaeological Congress to Palestine, Syria and Transjordan. This part concludes with Lady Smith Woodward's reminiscences of her childhood and schooldays, mainly in London, her marriage to Arthur and their early trips together to Italy and Greece.

[p. 058]By 1893 he had worked as far as the Cretaceous fishes in his preparation of the catalogue. He found it desirable to visit the American college in Beirut, where there was a large catalogue of fossil fishes from the Lebanon. He therefore went to Palestine, where he was able to engage a dragoman⁷⁶ and alone with this man rode from Jerusalem along the Jordan valley to Beirut. On the way to Beirut he was able to study the geology of the country, and at Oman he visited an acquaintance, Mr. William Bird, an American missionary, who had made a collection of fossil fishes from the Cretaceous rocks of the Lebanon, which were in the museum of the American college in Beirut⁷⁷. On arrival at his destination, Dr. Bliss⁷⁸, the President of the American Protestant College, now the American University, and Professor Alfred Ely Day⁷⁹, the curator of the Museum received him most kindly [p. 059] and helped him in every way, arranging a collecting trip in the Lebanon for him. A student from the college who spoke English was deputed to accompany him on horseback with two servants, so that he might visit the two known localities for fossil fishes, Sahel Alma and Hakel, where he was soon surprised at the richness of the deposits. While at Hakel he learned of a still richer locality, Hajula, but the temporary illness of his guide prevented him from visiting it, though he sent one of his men to Hajula to make enquiries. The man, who confirmed the story which had been reported, brought back a well-preserved fish, which Mr Woodward on his return home gave to the British Museum of Natural History⁸⁰.

This journey long remained a highlight in his memory and the desire to explore the unvisited site, Hajula in the Lebanon persisted, with its promise of rich reward in fresh specimens; and the always present chance of some new hitherto unknown fish coming to light.

⁷⁶ Interpreter or guide.

⁷⁷ The Reverend Dr William Bird, the son of a missionary, was stationed at the village of Abeih, south-east of Beirut. One of the localities from which he collected was on the hillside immediately below his house. (<http://digitallibrary.amnh.org/dspace/bitstream/handle/2246/4785/N1183.pdf?sequence=1>).

⁷⁸ Dr Daniel L Bliss (1823-1916), an ordained minister, was the founder and first president in 1866 of the Syrian Protestant College, now the American University of Beirut.

⁷⁹ Alfred Ely Day (1867-1930) was also Professor of Natural Sciences at the American University of Beirut.

⁸⁰ These three sites became well known – see OP Hay, 1903. 'Some remarks on the fossil fishes of Lebanon, Syria. *American Naturalist*, no 442, 27, pp 685-695.

In 1926 the chance of fulfilment came. The American University in Beirut, Syria, invited him to study and arrange their great collection of Cretaceous fossils from the Lebanon in their museum. The University undertook to pay all the expenses of the journey.

My husband and I were met on arrival by President Bayard Dodge⁸¹ and Professor Alfred Ely Day who arranged for us to spend about three months on the task. We resided in the [p. 060] University and were given special facilities. We had a large bed and sitting-room assigned to us, where we had breakfast. The man-servant made the morning coffee outside the door on a small brazier in the corridor, and we carried in the rolls, fresh fruit and coffee when we were ready, the other meals were taken in the refectory with the staff. It was really all very comfortable and the weather pleasant, not too hot and with fresh sea breezes. President and Mrs. Dodge were most kind and helpful as indeed were all the staff.

The collection proved to be much larger than Sir Arthur remembered to have seen, containing genera and species which had not previously been recognised. It was more extensive in its speciality than that in the British Museum, and it was all extremely dirty and dusty, so my first job was to wash the specimens, firstly so that my husband could see the distinguishing points of each one clearly and secondly because he objected very strongly to touching dirty things unnecessarily. I scrubbed each of the 8,000 specimens with a small brush, roughly sorted them and where possible and needful prepared them in a slight degree. Each of those 8,000 fishes in this way passed through my hands several times. When the specimens had thus been cleaned and sorted, they had to be labelled. Then we divided them. As complete a collection as possible was made for exhibition in the University Museum and carefully arranged in the cases. A special collection was put together [p. 061] for the American Museum of Natural History in New York, and another for the British Museum, filling blanks in that great collection. A store collection was put into drawers, and series of specimens put together which could be used for exchange with other museums. Sir Arthur also borrowed a few of the most important new fishes for comparison and description on his return to England⁸².

While we were thus employed we spent a week in camp at Hajula in a remote part of the Lebanon, with Professor Day who arranged for us to explore the rocks of the neighbourhood

⁸¹ Bayard Dodge (1888-1972), son-in-law of Howard Bliss who he succeeded as President of the college. This was something of a dynasty as Bliss succeeded his father, Daniel L Bliss, the first President.

⁸² A very readable account was given in the *Illustrated London News*, Sept. 4, 1926, pp.398-399. The scientific paper was not to be published until 1942.

which contained many fossil fishes. We took back to Beirut about 2,000 picked specimens to add to the University collection and furnish still more material for exchanges. A letter written at the time gives an idea of some of the difficulties encountered in reaching such remote places:

“On Wednesday of last week we were to have started early, but first the lorry for the baggage did not come, when it did one of the tyres was in a bad state so it was sent back to the garage and a fresh one obtained. Then when all the baggage had been packed in, off we went through Beirut and along the coast road northwards until we came to the river Adonis where we had lunch at a wayside inn. A small stream of water was arranged to flow in a channel through the open air chamber where the tables were placed over it for coolness. We had our meal there and waited for the mules which had been [p. 062] ordered to be in readiness. The headman came to say that the animals were tired and could not go that day. Professor Day said they must. About 4.30 o'clock they came along, and after much argument we got off about 5 o'clock. Nine mules and four donkeys, the tents, etc. all most skilfully loaded up. My mule had a tuft of ostrich feathers and a large necklace of red cord or fringe with bosses of looking-glass trimmed with cowries and blue beads, very striking, I can assure you. We left the road at once and climbed gently up over the hillside among boulders and flowers, even climbing while dusk came on and the stars shone out. Presently it was quite dark, but the mules carefully picked their way among the big stones on the edges of the cultivation terraces high up on the hillside. The prospect at sunset was superb. At last lights sprinkled the distance and we came to what looked in the darkness like an inn; it was only a small shop with a sort of arcaded front. We remained there for the night, a tent was set up for us and we slept as far as possible, among the sandflies, mules and muleteers and other noisy objects. With morning, which was quite lovely, we started out again, this time the baggage train followed us. The track became rougher and rougher until even the muleteers said we had better dismount. After going for a long way by the side of a valley we had to cross it and go up and over the far side which was tolerably lofty, a short cut was pointed out which really looked [p. 063] like walking up a roof. The track we followed was like stairs. I need not tell you that it is easier, pleasanter and more amusing to ride upstairs on a mule than to ride downstairs. This is apt to be a trying performance, but it was better than scrambling among the very rough stones on foot. It was extremely hot and we seemed always to have to go round another valley and cross another ridge. At last a Maronite monastery showed up. Professor Day had not realised that the

journey would take so long and had not brought lunch. He went into the monastery to ask for food, and when I got there I was about to enter when the reception monk rushed up and shoed me out for women are not allowed to go in. I saw quite a lot however, and a large number of monks seemed to be interested spectators. There was a guest room entered from outside the monastery proper, to which I was conducted. Here the smiling monk brought sweet red wine and soon an acolyte came with a large mat tray heaped up with pilaf, olives, sour milk, Arab bread and a sort of sweetened cornflour and then some more wine and Turkish coffee. At the end of the meal the smiling acolyte came with a basin, jug, towel and soap in order that we might wash our hands in oriental fashion, as of course there had been no knives or forks; we had used the bread to scoop up the food. The Prior came to sit with us part of the time; they refused any payment so A. found his way to the chapel and left a bank-note on an offertory dish. [p. 064] Then mounting again we went on for nearly two hours more, until at last we reached Hajula, where the camp was pitched in an empty ploughed field on a steep slope. All the fields are held up with walls so that the hillsides are covered with terraces. The flat-topped houses are small and the people have very few possessions. Famine during the war killed off all the children so that there were no young people just grown up, the oldest child seemed to be ten or eleven years old. We had three tents, one for ourselves, one for Professor Day and a third for the cook and overseer who went with us from the University. All the cooking was done on two primus stoves, and really it was all very good, of course we had taken all the food needed with us. For five days the villagers collected industriously, quarrelling frequently and making a great noise, but the result is a very fine collection of picked specimens. The people are Druses and very wild, they wore the most tattered, discoloured clothes I have ever seen. They belong to a heretical Moslem sect, and are well-known for their wild ways. They were paid for all specimens accepted, some earned quite large sums, but there were terrific rows. One woman began to stone A. and Professor Day because the villagers had trodden down her poor corn crop. Another made a great fuss because a wall was pushed over, it was only loose stones, but it had to be set up again. When we broke camp they seemed to think they should have immense sums. However at last we got off, and [p. 065] went by an even worse track to another fossil locality. Finally we reached a motor road where cars waited for us; we were glad to get a change of bumping down to Djebail⁸³ on the coast. This was

⁸³ Today it is more often spelled Jebail.

Byblos in ancient times, an important Phoenician centre. The French were making excavations and we were so fortunate as to find one of the workers who kindly showed us the huge pits by which the immense sarcophagii were let down. We saw one which had just been brought up, also remains of columns, temples and other buildings. On the hill is a castle built in Crusading times, now a ruin.

During our stay in Beirut an International Archaeological Congress was held in Palestine, Syria and Transjordan. We were invited to join it for about three weeks. We thus had the opportunity of travelling over the greater part of Palestine and far south as Hebron, and then accompanied a small party to the famous ruins at Petra. The son of the King of Transjordan, the Emir Abdullah was a member of the Congress, a very picturesque and dignified figure in his white robes. When he learned that the authorities considered the journey to Petra through bandit-ridden country too dangerous for the Congress, he intervened and announced that he would go to Petra himself and take his army to act as escort for us. The result was that our camp was surrounded by picturesque figures day and night with guns slung about them, who appeared silently among the ruins. It was an unrivalled occasion and we carried away [p. 066] a memory of the rose red columns guarded by romantic figures from the desert."

Further extracts from letters tell of the journey with its varied experiences:

"The Governor of the Lebanon gave a farewell party to the Congress the night before we all left for Jerusalem. He was a very handsome and charming Frenchman. As we approached the house, a grand French villa, set on rising ground with a pleasant garden round it, we saw that the garden was gaily lit up with lanterns and coloured electric lights. We entered the grounds and were excited to find the Governor's body-guard standing at short intervals on the drive with drawn swords. We "alighted" at the foot of a double white marble staircase, its balustrade overhung with flowing creepers, more body-guards with drawn swords stood on every second step as we mounted to shake hands, descending on the other side to the garden, directed everywhere on our way by gorgeous uniforms. As we stepped down the marble stairs we felt as if we were living in a fairy tale, the scene was so unreal.

The body-guard wear high black boots, white breeches, blue tunics, black fur caps, bright buttons, gold braid and medals all making a glitter. In the garden chairs were arranged and a beautiful concert given by some Russian artistes, then a French singer gave a series of songs, following by a couple of dancers, the man in fantastic evening dress, the [p. 067] lady changed her dress three times, each one was more astounding, with ostrich feather head-dresses and

pink satin draperies. There followed more good music after which we all streamed up the marble staircase between the drawn swords to a marble chamber where champagne was served with patties and cakes. We came away after midnight hilarious, to rise early when we joined the Congress party.

We were packed four into cars with our luggage and a driver; after a great deal of talk at last we started and driving over very bumpy roads in clouds of dust arrived at Sidon. Here a detachment of soldiers were lined up to salute each car as it passed and a gendarme at each corner saluted too. We were taken to see a very fine collection of ancient glass and vases, then embarking in the cars again were driven through the main streets of Sidon where the populace lined the sides of the road, kept in order by the police, thus we were a kind of Lord Mayor's show which was quite amusing.

The shops were so gay with brightly coloured goods, awnings over the streets, camels passing disdainfully, colour and teeming life everywhere bright. Of course French flags and palm branch arches were very frequent. After this, with a brief halt to view the old castle, we were taken to an orange garden where a very gorgeous champagne luncheon was provided with lots of speeches. All very picturesque and amusing. Once more packing into the cars, we passed Tyre and ran along the coast to the Ladder of Tyre which formerly was a [p. 068] dangerous passage over the cliff, till we came to the hard sands of Haifa where the road ceases and the cars run on the sandy beach. One car got into some loose sand and had to be pushed out. Then later on our driver wished to remain in Haifa, but we were due to sleep in Nazareth, where at last we arrived after dark very tired. We woke up to a most lovely morning and a beautiful scene. A short drive over the hills and through very lovely flowers brought us to Tiberias, a small fishing town which cannot have altered much through the ages - and on to Capernaum where the Franciscans are building up the old synagogue which was thrown down in an earthquake; the work is being splendidly done, all the stones are there and have only to be replaced. The Hospice where we spent the night is delightfully set in the midst of a garden among trees with the little waves lapping the shore and the whole lake spread before one. I am writing to you under a large lemon tree with bougainvillea and hibiscus on either hand and looking over the lake. Near where I am sitting so quietly, on the hillside is a large Bedouin camp; now a shepherd boy is piping as he watches his flock feed and faint sounds of bells come to me."

A few days were spent in Jerusalem with the members of the Congress and as the guests of the High Commissioner⁸⁴ and Lady Plumer, when we left for Petra.

“Truely oh Best Beloved it was a most deserty desert, where beyond the worlds utmost rim the happy Princess followed [p. 069] him to a Kingdom in the Clouds, through the Home of the Djinns where the rocks are stained red as though with the blood of horrid sacrifice from immemorial time.⁸⁵

And now we had better begin. Coming to the rendezvous luxuriously in the Government House car, we were packed into a small Dodge car, three on the back seat, A. by the chauffeur, the luggage on the running board, and small things such as cameras and lunch in paper packets among our feet. There were four cars but the other three were Studebaker seven seaters with balloon tyres. Off we set at 6.30 in the morning in a string down the long steep descent to Jericho where the rocks got more and more bare and desolate, past the Inn of the Good Samaritan to the plain where the Dead Sea lies deep below sea level among the great hills with a very dirty Jordan river flowing into its blue waters by a channel bordered with tamarisk and scanty scrub and odd looking little hills which look as if some Titan children had been playing and making mud pies, getting tired and left the scene all very untidy. Then the road climbed up a wonderful narrow gorge which gradually became more fertile; the cliffs came near together and stood frowning on our fussy and hurrying procession. By twists and turns cut on the mountain side we came to Es Salt⁸⁶, the ancient city built against the cliff and looking like a picture. The bottom of the deep narrow valley by which we travelled had a noisy stream in it, which watered many gardens terraced out in the more promising positions. Olive, walnut, [p. 070] pomegranate were the chief trees with melons, onions, tomatoes as garden crops. Elsewhere painfully cleared cornfields in which the bearded barley had to be garnered by hand with the age-old sickle could be seen. The tableland at the top by contrast was extremely fertile with large green fields of waving corn and quantities of wild flowers. Poppies as seen with the sun shining through them looked like streams of newly shed blood, and yet not blood for the colour had a wonderful glow of life in it. All up the gorge wild hollyhocks with beautiful

⁸⁴ Field Marshall Lord Plumer (1857-1932), Herbert Charles Onslow, first Viscount Plumer, was High Commissioner of the British Mandate for Palestine from 1925 to his retirement in 1928.

⁸⁵ Maud's spirited description seems derived partly from Kipling's *Just So Stories* and partly from Tennyson's poem 'The Daydream'.

⁸⁶ Al-Salt was initially the more important regional and political centre of what is now the Hashemite Kingdom of Jordan, but following the Great Arab Revolt, Emir Abdullah bin al-Hussein made Amman his capital in 1921. [<http://www.kinghussein.gov.jo>].

mauvy-pink flowers stood in seried [sic] ranks with taller wild fennel between. Then we turned off the main road and took the track to Jerash⁸⁷ still going north-east. This track took us among rocky hills, along dizzy precipices and steep hairpin turns, always with the most lovely wild rock gardens on either hand where the profusion of flowers coloured the hillside red, blue, yellow, purple in turn, great deep blue anchusa rivalled the blue of the sky and one lovely thing after the other enraptured me and delighted all eyes. Now and again Bedouin tents with flocks and herds would be seen in the distance and at last we reached Jerash. Here we found ourselves in a deserted Roman city, which is now being excavated, with remains of temples, a theatre and market place, all on a large scale, but what it all means seems uncertain. Still there it is far away in a rocky stoney land and once important and teeming with life. An Arab town occupied a nearby hill. [p. 071] Then a return through the lovely rock gardens by the climbing road brought us to Amman where we spent the night in the Philadelphia Hotel which is built almost on the stage of the Roman theatre with a colonnaded street leading to it. The Roman theatre is carved out of the hillside, beside it is a pretty little Odeon or music-hall. The opposite hill is crowned with more ruins.

Next morning up again early to spend ten hours in the cars on the way to Maan⁸⁸. We embarked our armed escort before leaving Amman, who had to be packed into cars already quite full. Our little car was over-full already so we had no soldier. The rifles stuck out of the sides of the car ahead adding greatly to the sense of adventure and the feeling that we were launching out into the unknown. At first the track, and unmade road, led up and up by twists and turns through well cultivated country where fragments of Roman masonry testified to former greatness, and black irises stood among the corn, to a tableland. Here we encountered immense herds of camels, many, many hundreds feeding on the sparse vegetation growing among the stones, and all moving with dignity and disdain.

The tableland spread out, the high hills retreated and we thought how horrid it would be to break a back axle as we bumped over the solid waves of hard sand, or manoeuvred among the boulders of some dry river bed. The descent of the river banks made one think of the Latin tag and the passage of a wide river bed made one think one had got there. However, [p. 072] as my charming companion said, we were all soft, so we rebounded of each other when we did

⁸⁷ Jerash was an ancient city badly damaged by earthquakes and war. It had been hidden under sand until it was re-discovered in the early nineteenth century. Subsequent excavations have revealed a remarkable and well-preserved Roman town. It lies about 30 miles north of Amman.

⁸⁸ The ancient city of Ma'an is in southern Jordan, just a short distance from the modern city.

not hit our heads on the cross bar of the car canopy. Then we came to Arabia Petraea, the really and truly desert where the hard sand, level as possible, is scattered with sun blackened pebbles, some small and in other parts quite large, but all dreadful; here are no flocks or herds, very very few plants or flowers, only desolation. Always our way had been within sight of the railway where the ruined stations and fragments of blown up trains and water tanks gave evidence of fights for the possession of this railway where a train runs twice a week. On the return journey we were so fortunate as to see it. All the viaducts across the river beds and the culverts have had to be rebuilt.

Then we came to Maan, where the bright red flag of our old friend Thomas Cook floated over a magnificent two-storied hotel. This hotel had been specially fitted out with new crockery and tableware, new sheets full of dressing which crackled every time one moved in bed and such like unexpected luxuries. A. and I had a room all to ourselves. The sanitary arrangements were good to look at, but the connections did not seem to have been fully carried out. Except for a police barracks all the buildings were in ruins near the railway. Maan itself is three miles away and did not seem to have suffered at all.

Next morning on again over the desert encountering vast herds of goats, all black and ugly, no wonder the wicked of this world were compared to goats, black with cold amber [p. 073] eyes, looking evil, in spite of the engaging antics of the kids, the flocks of fat-tailed sheep are kept separate from the goats, and are usually white with brown patches. Hundreds and hundreds of camels with enchanting baby camels grazed on the scanty herbage, and when we reached fertile lands again we were surprised to see cattle. Birds were fairly common at first, owls which sat on the telegraph poles, and all the storks to bring all the babies in the world to their waiting parents; there must have been thousands at one place, standing majestically among the wild flowers or slowly circling overhead like giant lap-wings. Hawks were frequent too, and at Petra we saw many eagles. Once a large lizard, about a yard long was terribly distracted because the cars cut him off from his home. He ran this way and that, so we had a good view of him. At Petra we saw a very bright blue lizard about a foot long on a deep red rock in the sunshine, a very remarkable sight.

The mirage too, was always exciting, and interesting; at first it was difficult to believe that our eyes were deceived. So we continued over the desert until we reached a narrow valley where a clear spring comes up in a small grotto, the reputed place where Moses struck the rock and the water gushed forth. Here the so-called road came to an end and we got out of the cars

into the midst of a shouting crowd of excited Bedouin. We mounted on the horses they had brought, I fortunately got a comfortable mount. The baggage was piled on mules or donkeys [p. 074] and off we started, the foals running alongside.

At first we passed through grey and rocky country where the crops are painfully cultivated in terraces on the mountain sides, and then as we went on through a mountain village, the valley spread out, a fertile garden and granary with a huge red and forbidding mountain mass rising in front of us. This great red and fantastically peaked mountain mass hid in its heart Petra, the mysterious. As I stood a moment on the grey hillside looking over the green valley to the red mountain, over its towering pinnacles I saw shimmering in the haze a dream country, all lovely pearly hues against the threatening red. It was the country towards Atbara. Then on and on until the rock face was reached when a crack between the soaring rock walls opened to show a way in; the bed of a torrent, now dry and hardly wide enough for two animals to pass comfortably, made the road. On either hand the rocks reached up for hundreds of feet, red and glowing, to a narrow ribbon of blue sky, thus twisting and turning our mounted cavalcade made its way to the heart of the mountains. Suddenly a dainty palace all soft rose colour, with floating nymphs between the light and graceful columns greeted the eye. Actually the temple was huge and cut out from the solid red rock but the proportions and situation gave an effect of grace and lightness. Thence on and over, ever with growing wonder at the immense effort and imagination which had produced in this vastness so much beauty and wealth.

Then, turning a corner, white tents with our friend [p. 075] Thomas Cook's red ensign promised rest and refreshment. For we were all dry, very dry, and nothing but an organised raid on Vichy or Vittel was of much interest for the moment. Quite remarkable luxury awaited us. The ladies were made very comfortable in two tents covered inside with Egyptian designs, with good beds, chairs, washstands and a table. The men were housed in rock-hewn chambers on the cliff face. A large marquee was the dining-room, and a large Bedouin tent served for kitchen quarters. Across the nullah⁸⁹ was the encampment of the Emir and his numerous retinue, carefully hidden in caves, tombs and suchlike conveniences. All around towered up rock pinnacles of fantastic shape, the face of the cliff carved out into pillars, porticoes and cornices, the entrance to tombs, treasuries perhaps public offices, with incredible labour and

⁸⁹ With a similar meaning to the Arab word wadi, nullah is derived from the Hindi for a riverbed or ravine – usually dry apart from the rainy season.

imagination. This almost inaccessible and quite impregnable fastness had been inhabited and made sacred in earliest times. On the top of high rocks reached by grand stairways, now so broken that the ascent is dangerous and difficult, were offered blood sacrifices to the old gods. The altars remain with the channels to carry off the blood of the victims, and the pools for the ceremonial washings. Here we spent two exciting and intensely hot days, scrambling among the fallen rocks, always accompanied by armed guides told off to look after us, to see that no accident befell us.

The Emir received the party in his tent, where we sat on [p. 076] our haunches, made polite conversation through an interpreter, and took our departure after drinking a minute drop of coffee poured out of elaborate brass coffee pots into handleless cups. The next day the Emir took tea with us; he was most affable, remained a long time, and had his horses brought out for our inspection, they were very lovely creatures bounding like goats among the stones. When the second half of the party came in, we departed by the way we came and by the same halts came to Jerusalem where the travelling companions said goodbye and scattered to meet, we hope, sometime in England.

Our small car on the return journey made a detour by the Dead Sea where I tasted the bitter water. You may judge the excitement our trip caused by the fact, that at the Jordan bridge the police came to congratulate us on our safe return, and said how glad they were to see us. We then drove back from Jerusalem to Beirut and continued our work until it was finished.

We had a further memorable experience when we went with Mr. Turville Petre and Mrs. Baynes to the cave in the Galilee hills where remains of Mousterian man had been found. These caves afterwards yielded much varied ancient-man material which was worked up by Sir Arthur Keith and Dr. Theodore McCown⁹⁰.

On finally leaving Beirut we passed through Cyprus visiting several historic and archaeological sites of great beauty and interest. On arriving one noontide at a hill village we descended from our donkeys at the inn and through our dragoman [p. 077] asked for a meal.

⁹⁰ This cave was the Mugharet el-Zuttiyeh, or Cave of the Robbers. Francis Turville-Petre (1901-1941), a young Oxford-educated archaeologist, had been working there since 1925, assisted by Mrs Charlotte Baynes. He found four fragments of a human skull, at the same level as Mousterian flints, hence Mousterian – or Neanderthal - man. It became known as the Galilee skull. Over the next few years, further caves in the region were excavated under the direction of the archaeologist Dorothy Garrod, and remarkable specimens of early humans discovered. The palaeoanthropologist Sir Arthur Keith (1866-1955) worked on these with the American anthropologist Dr Theodore Doney McCown. [and see 'Sir Arthur Keith's Legacy: Re-discovering a lost collection of human fossils', I. De Groote, S. M. Bello, R. Kruszynski, T. Compton, C. Stringer, *Quaternary International* 337 (2014) 237-253].

Shortly after the landlord came to ask if we were "Ingleses". He then produced the raw kidneys wrapped still in their fat of a newly killed sheep, a gift from a man of substance who admired England. It was a really difficult situation. My husband would never eat any intimate part of an animal's anatomy and fat quickly makes me sick. It was an occasion for trying to overcome personal feelings for the honour of one's country. I know the messy state of our plates cost us at least prestige.

We crossed to Egypt where we had the opportunity of seeing under expert guidance the principal objects in the Cairo Museum, including the still glittering treasures of Tutankhamun. At the Pyramids we were met by the eminent Egyptologist, Dr. Reissner⁹¹, who had then just discovered the tomb of the mother of Cheops. He took us down the shaft 30ft deep which reached the passage leading to the tomb and there we saw the great part of its gleaming contents still in place, a most memorable experience. Dr. Reissner explained his method of work and the means taken to preserve the newly discovered treasures and prevent them from perishing, the brilliancy of the gold and gleaming enamels of the personal ornaments of the dead were strangely moving and impressive.

The following was evidently written at the time of the first journey to Palestine and is probably an unfinished letter to his mother. It is on very thin notepaper in his neat and entirely characteristic handwriting. Its value lies in the brief [p. 078] description of conditions as he found them in that land of many histories, which have now in themselves become historical.

"Anyone desirous of studying a past civilization may be recommended to try the Turkish dominions. Even in the centre of the empire itself nearly all the agencies of modern life are introduced and sustained by immigrants from the West; in such outlying dependencies as Syria, this is the case even to a greater extent, and ordinary life is much the same as it was in the days of the old patriarchs five or six thousand years ago. The Bedouins, dwelling in tents, still roam over the country with their flocks and herds, in some regions preventing the establishment even of villages. The tillers of the land still use the simple wooden plough of antiquity, which does little more than scratch the surface soil; and even when on rare occasions a modern spade is introduced by some unusually enterprising rustic, he finds it necessary to call in the services of two of his neighbours, who pull the tool up by means of ropes every time he delves into the ground. There being practically no fences the shepherd and goatherd continue in their old

⁹¹ Dr George Andrew Reisner (1867-1942), American Egyptologist.

occupation of tending the flocks; and there may still be heard on the hills the same piping music of the men and boys that David played centuries ago. In manufactories and trade too, there is scarcely any attempt at co-operation; every artificer works and sells for himself in primitive fashion. In domestic life everything is much the [p. 079] same as it was in the early times described in Bible history.

In the matter of transport in Syria, the methods are especially antiquated; and even the "great northern road" from Jerusalem to Damascus is nothing more than a beaten track, partly hardened by the tramp of feet during centuries, and for many miles in the mountains is no better than a rocky watercourse. In a few instances the French and British have surveyed and constructed good carriage roads; but there are places where those are overgrown by weeds, the natives preferring an adjoining track which they say is softer and more comfortable for the animal's feet. Camels, horses, mules, and donkeys, laden to the utmost, are almost the sole means of transport; wheels only being seen in a few places such as Jaffa, Jerusalem, Haifa and Beirut, where the western nations have established important colonies.

Times, however, are changing, and ere long it seems likely that his antique Majesty at Constantinople will be compelled to view Syria as he now looks upon Egypt. It is true that the landing at Jaffa remains still in the same condition as it was in the remote age when Jonah is said to have experienced his ignominious adventures on that coast. After safely passing the rocks and climbing up the shore, one also arrives even yet in the indescribable, narrow slum (termed a street) by the sea wall, filled with caravans of camels and donkeys, squabbling Arabs, snarling dogs and every kind of filth for which the Orient is famous. But immediately beyond these relics of antiquity [p. 080] the French, the Britons, and the Germans have made roads and established a suburb; and the former have at last succeeded in overcoming all the obstacles placed before them by the Turkish government and constructed a railway to Jerusalem. This is now appropriated as one of the "Imperial Ottoman Railways", and was opened for traffic last year."

Lady Smith Woodward here begins her account of her childhood.

[p. 081]A little child stood at her father's knee watching with interested gaze his skilful hands "unpacking" a dead animal, while he told her something about the use and meaning of

the various parts as he worked⁹². At one time this animal was a small leathery turtle (a sea-swimming creature), and the wonderful gullet with its backwardly directed spines preventing the escape of the still living food made a deep impression, though the active memory of it went into retirement for nearly forty years and only emerged when a very large leathery turtle caught in a submarine net during the 1914-1918 war was sent to the Natural History Museum. There a cast was made of it, as a record, for owing to the character of the carapace it was difficult to preserve. During the preparation of the specimen the head was cut off and the gullet exposed showing the spines. I came on the scene at that moment, and memory flashed back to the tiny child and to her father at work.

At the time when I watched my father dissect dead animals, the Zoological Society of London had no regular Prosector⁹³ on their staff, and he sometimes did this work for the society, of which he was a Fellow, as he also did for the Westminster Aquarium⁹⁴. I can still remember the smell of boiled lion. I cannot now recall anything else about the beast, or why it died, but I do know that its bones were boiled in our copper. Afterwards they hung on the sitting-room wall, the skull [p. 082] central, with the backbone threaded on string festooned below it, and the crossed limb-bones garnishing it on either side. After a move they were disposed of to a museum, as maids did not take kindly to the skull and cross-bones idea as drawing-room ornaments.

Still more impressive were two dead crocodiles, whose odour was very pungent and particular. My mother helped my father to skin them, for it was a difficult job, the tail muscles were so strong, and the skin so firmly attached that her arms ached for days and days, as she told me many years afterwards. My sister and I were forbidden to go into the room in the basement where the work was done, but as it opened by a French window into the garden, it became a fearful joy to tiptoe in unobserved in order to view any progress. Presently the skulls of these crocodiles joined company with the lion on the wall. My father tried to get the skins tanned, but at that time such work had not been thought of, and though his tanner friend in Bermondsey considered the project it was not then possible; however, the enquiry eventually

⁹² Maud's father was of course the geologist and palaeontologist Harry Govier Seeley (1839–1909). In 1872 he married Eleanora Jane Mitchell, a skilled cataloguer and natural history artist. Maud was the eldest of their four daughters.

⁹³ A person who prepares a body for dissection by students or for anatomical demonstration.

⁹⁴ The Royal Aquarium at Westminster opened in the 1870s on the site where the Methodist Central Hall, Westminster now stands. It was a huge building and offered a range of entertainment in addition to the aquaria. It closed on 10 January 1903, and the building was almost immediately demolished.

led to the use of crocodile and lizard skins for leather, though much research was necessary before a satisfactory method of clearing the skins of their oils could be found. These two dried skins, which to our childish eyes were much like the dragons of our favourite fairy tales, for many years hung on the drawing-room wall until in time they became harbourage for a varied insect life, when they were [p. 083] banished.

At that early age I regarded my father as mine very particularly and was happiest in his company, content to leave my younger and robust sister to a more active existence if I could watch him at work, and most happy when I went out with him on some errand or expedition which might even lead us into a second-hand bookshop, a really wonderful though perhaps dirty and dusty place, where silent men turned slowly the pages of books quietly taken from the shelves. What were they reading? Or were they only looking at pictures? Those people excited my imagination, as the books themselves excited my interest, and I longed for the time when I too should be able to take them from the shelves and turn their leaves. There were many books in our own home, some of them had pictures of far away lands or strange animals, and some had portraits of famous men and women; these we might always look at, but they had to be put back carefully in their right resting places. I think I learned to think of books as tools to work with at an early age, for even in our nursery we had French and German picture books made for French or German children and excitingly different from books which came at Christmas or birthdays. We learned foreign words and short phrases from these books as well as little songs.

A memorable expedition I had alone with my father was to Hengler's Circus⁹⁵ to see the play of Cinderella performed by children. The glass coach was drawn round the arena by eight [p. 084] tiny Shetland ponies in crimson harness. This visit was long a highlight among my widening experiences. It was also my first visit to a theatre. As far as I can remember I was about six years at the time, and I suppose my sister was thought to be too young to go with us.

I shared a nursery with a sister just over a year younger than myself, the walls of which had two very large but out of date maps on them. The map of Europe had many small divisions on it in rather dull colours like worn crazy patchwork, this my sister considered her property.

⁹⁵ Charles Hengler's Circus was on the grandest of scales. In 1871 he opened a 1000 seat building on the site in Argyll Street off Oxford Street where the London Palladium now is, and later rebuilt and expanded it. He also had sites in the regions, including Glasgow and Liverpool before coming to London. He often presented a Hippodrama a play involving horses, one of which was Cinderella, performed in the circus in Argyll Street. *The Times* called Hengler's 'magnificent'.

The other, a map of Africa, was mine and had large clear spaces and, most exciting to the imagination, the mountains of the Moon marked right across the centre like black caterpillars⁹⁶. Surely a most stimulating thing to look at and think about even if a busybody breaking into your fairy story told you that they did not really exist; you cherished in your heart the idea that there were strange and wonderful things to be seen in that large and distant mysterious country, which indeed in years ahead proved to be true. I think the fact that we were taken to the British Museum to see the strange to our eyes, Egyptian collections and also to see Cleopatra's needle, which had not long been placed on the Embankment, helped to make me even at that age believe that Africa must be a land of wonders.

A small aquarium with two goldfish, some small water-snails and a small kind of water tortoise which had a cork island on [p. 085] which to climb was another constant interest. This stood in the dining room window, and in our young cruelty, on returning from a walk we would rush in to turn the poor little tortoise off its refuge into the water.

My mother was a skilled musician and at that period spent some time every day at her piano. She played French and German children's songs for us and also taught them to us. She played also lively tunes to us most evenings to which we danced in happy abandon. We loved them much and gave to these tunes names of our own invention, such as the Elephant, the Kangaroo, the Camel or the Lion, animals very familiar to us from our frequent visits to the Zoo. She also played these tunes later on for her grandchildren, who loved them as we had done, and the fanciful names were so firmly fixed in family usage that my daughter tried to get gramophone records for her children before she realised that the music was known by other names. She and the assistant in the music shop had quite an argument, which ended up with much amusement to both, and a determined effort on the part of the shop assistant to find a substitute. Debussy's Children's Games was the compromise⁹⁷. Thus we grew up hearing Mozart, Haydn, Beethoven every day, enjoying the beautiful and satisfying music as part of our lives and rather taking it all as a matter of course.

Many of the friends who came to the house were also interested in bones and stones, for though my father was a [p. 086] Professor of Geography and Geology, his chief preoccupation was with palaeontology and therefore also with Zoology and anatomy – hence the animal

⁹⁶ Ancient and poetic name for the Ruwenzori Mountains on the border of what today are Uganda and the Democratic Republic of Congo.

⁹⁷ Maud is presumably referring to Debussy's early 20th century piece, Children's Corner.

interest. On one occasion a very distinguished American called, and my parents, as the evening wore on, realised that he expected to spend the night with them. My mother got a room ready for him, as the maids had gone to bed; in the morning she got up early and in her dressing gown went up to the nursery to ask the nurse to go out to get something special for Professor Cope's⁹⁸ breakfast; to her dismay she found him happily watching two very serious little Anglo-Saxons eat their bread and milk. This was my first contact with an American. A visitor of much value in my estimation was Charles Stewart⁹⁹ at that time conservator at the College of Surgeons. He gave me a doll's baby carriage, a wicker-work affair on three wheels and I am sure that this prized possession afforded me at least as much pride and pleasure as the full-sized perambulator of a later period. I also remember Charles Montagu Doughty¹⁰⁰, the Eastern traveller with his full sized beard and tales of wonder; the artist Edwin Long¹⁰¹ with visits to his studio where half finished pictures were matters of curiosity; the authoress Mrs. Clifford¹⁰², now I think forgotten, and certain early suffrage workers – a varied but lively company always full of talk and experience.

The younger of my mother's brothers was an ardent photographer; he used us as models and though we loved him much we [p. 087] did not appreciate sitting still for as long as was then needed to obtain a picture, the result being a portrait of very glum little girls.

My sister was a very lively active child with masses of bright brown curling hair, my envy, as mine was a straight as anyone's ever was and quite resistant to wave or curl, even when plaited and ironed under a damp cloth on the nursery table, quite an operation by the way, as one had to kneel with one's back to the table with the constant fear that the flat iron would touch one's neck or scalp. The hair very soon became "rat's tails" again and a source of mortification; even though its bright gold colour was attractive, it was not fashionable and no one admired it, least of all myself.

The London of my earliest recollection where I walked with my father was of a very different appearance from that of later years. Parts of the town no further away than Hampstead or Hammersmith still retained something of the earlier village, with closely

⁹⁸ Professor Edward Drinker Cope (1840-1897) was a brilliant American vertebrate palaeontologist and protagonist in the so-called "Bone Wars".

⁹⁹ Charles Stewart (1840-1907), comparative anatomist and conservator of the Hunterian Museum at the Royal College of Surgeons. See the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

¹⁰⁰ C. M. Doughty (1843-1926) English poet, writer and traveller.

¹⁰¹ Edwin Longsden Long RA (1829-1891).

¹⁰² This is probably Lucy Clifford (1846-1929) novelist and wife of mathematician and philosopher William Kingdon Clifford.

adjacent fields. City men lived near to their businesses and most shop-keepers lived above their wares, so that many streets still had a lived-in air, and were not so much given up to trading as became general slightly later on. There was much mud and dirt on the macadam roads in winter, and in dry weather dust, for street cleaning as a rule was only carried out regularly in the main thoroughfares. When snow fell the householder was expected to clear it away [p. 088] from the front of his house. Bands of men and boys armed with shovels and brooms went along the residential streets ringing the door bells to demand employment in clearing the door-ways, steps and frontage. Gangs of poorly clad men cleared the roadway, sweeping the snow into banks on the sidewalk where it slowly melted, becoming daily more and more dirty. There were wandering traders of many sorts; the knife-grinder with his wheel set up near a street corner, the chair-mender with his canes in a convenient alley-way, the hot-chestnut man with his glowing fire on a trestle and the roasted chestnuts on a tray above. Standing on the kerb, pedlars of small wares of many kinds, as well as the regular costers with their barrows who sold fruit and vegetables as well as fish, lined many main roads and the frequent turnings just off them. In summer the "catch 'em alive oh" man walked through the streets calling his fly papers, which were sheets of newspaper spread with a sticky and presumably poisonous substance; round his hat was tied a fly paper covered as thickly as possible with dead flies, quite a fearsome sight. With poor sanitation and irregular refuse collection flies were a real and very active nuisance in hot weather. Another and slightly alarming figure to a small child was the old clothes man or rag collector, usually clad in a long ulster and high hat; he was frequently a foreign Jew and called "Ole clo" as he went along. As dusk fell the lamp-lighter flitted from lamp to lamp along the street making darkness more [p. 089] visible with the feeble fish-tail gas flames like half-fledged stars at long intervals. At dawn again he slipped up and down his ladder, which he carried on his shoulders, to indicate that day was here even if obscured with dense yellow and evil-smelling fog. I really think fogs were more frequent and disturbing in the days when damp fields came more closely round the city's heart and before large buildings with deep substructures had drained dryer the land surface. Perhaps also the wider introduction of central heating, with gas or electric fires displacing the comforting but smoke-producing coal fire, has had something to do with it.

The women seated at a vantage point with their flower baskets always gave me a thrill though the simple flowers they sold were not as various or gorgeous as those we can today buy in shops. Milk was delivered by women who carried brightly polished metal cans hanging from

a wooden yoke across the shoulders. They wore many petticoats, which were much shorter than those worn by other women at that time, as well as a large print apron; they also wore cross-over shawls of gay colours fastened at the throat with a large brooch. Their black bonnets were trimmed with dangling bugles and tied under the chin with a wide ribbon. In winter I seem to remember high laced boots. The butcher's boy brought the meat in a shallow wooden tray carried on his shoulder, the tray was scrubbed daily but the food was exposed to all the dust of the street. Household [p. 090] rubbish was collected at irregular intervals into baskets that the men emptied into open carts which in stormy weather allowed their contents to be scattered by the wind. These men wore a smock, corduroy trousers gartered by a leather strap below the knee, a leather shield hung from the hat to protect the shoulders from the basket. This leather shield was also used by the men who delivered coal.

Sometimes at the junction of a main street with a cross road, Punch and Judy would be set up to delight a crowd of children of all sorts and not a few grown-ups with the traditional play. Dog Toby, always a favourite, with a gay frill round his neck taking his part seriously, barking at the policeman or the bad characters. Once I saw a dancing bear led by a man with a long pole on his shoulder. The bear wore a leather muzzle, it got up on its hind legs and shuffled a dance when the man played a pipe. Another time I saw a jack-in-the-green surrounded by men in fancy dress, the traditional sweeps' holiday play¹⁰³. Much more frequent, however, was the Italian in a tall conical hat decked with bright ribbon who carried a small hand organ hung from a strap round his shoulders; while turning the handle he supported it on a wooden pole reaching to the ground. Very often he had a small monkey with him, which in cold weather nestled under his coat, and in warmer weather sat on the top of the organ where it was possible timidly to feed it with a biscuit or fruit. The little creature usually wore a small coat [p. 091] of some bright material. Bands of men with brass instruments also wandered up and down the residential streets stopping to give their programme at suitable positions under a lamp on dull winter evenings. These were known as German Bands; the better ones had a regular beat and collected a weekly dole of a few pence. It was a more leisurely age when people had time to enjoy the simple pleasures.

Many of the shops still had the hanging signs which were necessary in the days when relatively few people could read. The barber's red and white pole was frequent, especially in

¹⁰³ Jack-in-the-green was part of traditional May day celebrations, and refers to a man covered almost entirely in garlands of greenery, with just a 'window' for his eyes.

the less important shopping streets. A huge gloved hand showed the glover's shop, and a large boot the shoemaker; a gilded twist or roll told where tobacco could be bought, the chemist had his large bottles of red or blue water standing in his window to catch the eye, and frequently a pestle and mortar over the door. An umbrella, with the sections in different colours, hung out at the umbrella shop, but the most frequently seen sign was the three golden balls of the pawnbroker. Of course there were also all the arresting signs of the public houses in very great variety. A dairy sometimes displayed a cow or perhaps a hen on a nest. The butcher and fishmonger found enough advertisement in odour.

Chain-stores had not come into existence, though larger shops had branches in other parts of the town. The first department store that I remember was Shoolbreds in Tottenham Court [p. 092] Road, where groceries and drapery could be bought under the same roof¹⁰⁴; about that time others sprang up in all parts of the town. The majority of shops however were still small, their display windows allowing few wares to be shown to catch the eye of the passer-by. It was not until after the series of exhibitions at South Kensington that the modern shop window of plate glass became usual.

The roadway of the busier streets was filled with horse-drawn carriages and carts of many shapes and sizes, as well as with the delightfully gay coloured omnibuses drawn by strong handsome horses. It was a real adventure to be taken on a bus ride to Hampstead, Kew, Dulwich or some other outlying part of the town; a yellow bus went to one suburb, a blue one in quite another direction, or a green one elsewhere. Some had bold names in gold letters, such as Atlas, a not too difficult word for a young child to read. These buses had open seats on the roof reached by a steep ladder at the back, as well as a seat each side of the driver which was a post of vantage. I well remember the thrill of sitting with my father perched above the horses and protected by a heavy tarpaulin apron from wind or rain. There was much to excite the interest and imagination as passengers of all sorts entered or left the vehicle, which became a fairy cavern changing its inhabitants from everyday passers-by to strangers on strange errands, and ourselves into voyagers to dreamlands. The floor of these [p. 093] buses was covered with straw which gave an unforgettable perfume to the interior, and a constant rattling noise from moving feet. The straw also scratched and tickled little bare legs. The fares

¹⁰⁴ Jas Shoolbred began in the 1820s as a draper's shop. By the 1860s it also designed and made furniture (for which Tottenham Court Road is still renowned) and by the 1880s had expanded to become one of the first department stores.

were high by later standards; sixpence a minimum, so that we children were usually perched on a parent's knee for shorter journeys. Most buses had two horses, but those going to Hampstead had three, though on other routes at steep stretches of road an extra "trace-horse" was usually attached. The most splendid horses on the road belonged to breweries, and they were very handsome heavy creatures, slow moving and bearing gleaming brass ornaments on their harness. The ordinary cab-horse was not the well-kept animal of a later period, but a rather poor looking beast. There were also large numbers of private carriages, the grander sort with two horses and often a footman sitting beside the coachman, all very well turned out and smart. Sometimes the coaches of the nobility, bearing coats of arms on the panels, the coachman in a white wig, and footmen with powdered hair and grand historic liveries standing on a platform at the back of the coach hanging on to leather straps, could be seen bearing the be-feathered and be-jewelled ladies of the family to court; these were like living illustrations to a fairy tale. The little donkey, too, had his part, generally attached to a small cart or barrow for vegetables. On the river there were many paddle steamboats which went up and down the river calling at frequent piers to pick up and set [p. 094] down passengers. I greatly enjoyed these brief boat trips, which were a feature of London life at the time; there were also longer trips down the river on occasions among ocean-going ships, or up the river to Kew with its glories and glass palaces for fairy princesses, or Richmond with Robin Hood's deer, so tame yet stately.

A well remembered event belonging to this early period of my life when I was less than seven years old was a visit to the British Museum to see what my sister and I called the stuffed zoo for the last time before it was packed up prior to removal to the newly built museum at South Kensington. We said goodbye to our favourites quite cheerfully for we had the live zoo very near to our home and went there very often, and the famous Jumbo and Alice were familiar friends.

About this time someone asked what we would do if we had a baby brother or sister, with one voice we both replied instantly "put it in the aquarium". Soon after on an Easter Monday morning never to be forgotten, our father came to the nursery and said to us: "Come and see what Mamma has to show you". We were led into her bedroom where to our dismay a red-faced, dark-haired, squirming little sister lay beside our loved mother in her big mahogany four-poster bed. We did not like it. Coming out of the room we took hands, walked downstairs and solemnly inspected the aquarium. We regretfully decided that the new sister

was too big to be put into it. From this time life took on a rather different aspect, for our mother [p. 095] was very much taken up with the new-comer, and we moved to a newly built house on Primrose Hill¹⁰⁵. This house had a fixed bath in it, heated by gas. It was tremendously interesting and exciting, for the bath hitherto had been a shallow round tin affair kept under the bed, which needed two people to empty it. The grand new bath had gas burners under it which, when the water had been run in to the needed depth, were lit and made the water as hot as was required. One day the gas set fire to the floor boards which had become warped by the heat. Fortunately my father was in the house and the fire was put out before any serious damage was done. I was about eight years old and was given the baby to take care of and together with my sister sent into the dining room and told to remain there quietly. This experience was really very terrifying, it gave me an almost unbearable horror of gas, so that even with the long lapse of years I only endure it as a convenience.

We went to school for the first time and made friends with other children living near us with whom we made expeditions to the fields still existing at the back of Fitzjohn's Avenue¹⁰⁶, where we climbed trees, tore our clothes and did plenty of things we should not have done. Keeping house up an old oak tree was great fun. Sometimes if pennies had been acquired, we went as far as Hampstead Heath to enjoy a glorious ride on the roundabout or a perilous swing at the edge of the pond; we walked there and back. When grown-ups went with us there was the [p. 096] added delight of a donkey ride. The little donkeys waited, tied to a rail, and the saddles had fitted covers of holland¹⁰⁷ bound with red braid.

This was the time when the home ceased to be the all sufficing element in our lives and we began to be aware of the great round world and the people in it.

The nearby Primrose Hill was a frequent play-ground, and there was a particular joy on a fine clear day in climbing to the top in order to view the great city below. We soon learned to pick out the mass of St Paul's where we had gone up to the whispering gallery, and whose soaring dome dwarfed the National Gallery's low one. The lion on the Thames-side brewery with his stiffly extended tail was easily pointed out, the shot tower¹⁰⁸ and the Monument were

¹⁰⁵ Primrose Hill in north-west London is just north of Regent's Park and Maud's beloved Zoo.

¹⁰⁶ Fitzjohn's Avenue leads up to Hampstead and is a mile and a half or so from Primrose Hill. Any fields at the back of it are long gone.

¹⁰⁷ A smooth, hard-wearing linen fabric used typically for furniture coverings.

¹⁰⁸ The Shot Tower (used for making lead shot) at the Lambeth Lead Works was demolished in 1967 to make way for the Queen Elizabeth Hall.

also conspicuous. It became a game to see who could most quickly identify the various more easily distinguished buildings which lay between us and the distant blue hills so far away.

The Lord Mayor's Show, with its ancient pomp and display awakened an interest in history, and the Children's Christmas lectures at the Royal Institution with the illustrating experiments and demonstrations showed ways of finding out how things worked. Our parents showed to us many things that seemed to them educative in the best sense, which we might be glad to remember. I am deeply grateful to them for the way in which we were taken about, and for all the memories I have of the expeditions, whether to the National Gallery, notwithstanding that at the time Landseer interested us more than Raphael, or to Kew Gardens, where the Palm House appeared to be a fairy palace in which anything might happen, and the flying birds were the messengers. The Crystal Palace fireworks set an unfair standard to the back-garden fifth of November, and the closing performance at the old Polytechnic¹⁰⁹ left a wondering memory of the mechanical Blondin; why did he not fall off the rope? The diving bell was yet another wonder, it sank slowly under the surface of the water, yet the people inside came up again unharmed. The Westminster Aquarium had much attraction, [p. 097] I seem to remember going there several times. An Orang-utan aroused in me a very great curiosity with its humanlike appearance and slow movement. A young chimpanzee appeared to be suffering from bronchitis, our bronchitis kettle was borrowed and we got a great thrill when we saw the creature wrapped up in a blanket with our kettle steaming into the cage. At another time a trained Spanish bull gave a display in the arena; one of the men was accidentally hurt, and we were taken to see him lying on a couch in his spangled dress, with the black bull beside him. This sight again started fresh trains of thought and wonder. The foreign people we had seen had been like our parents, these men with the bull were somehow different. Perhaps the most serious thoughts were aroused when we were taken to the lodgings of an aunt in Albany Street to see soldiers returning to the Albany barracks from the Egyptian campaign¹¹⁰. The men were burnt brown by exposure and all were so thin and haggard that the one plump man in the number that passed by was rather more than remarkable. The people in the street were, I suppose, so shocked by the appearance of the men that there were no cheers. The thin line passed silently into the barracks. My elders

¹⁰⁹ This is the Royal Polytechnic Institution in London whose aim was to demonstrate new inventions and technologies to the public and was famous for its amazing magic lantern shows. See footnote 12 on page 14. Blondin was a tightrope walker and acrobat of remarkable talent.

¹¹⁰ The Regent's Park Barracks in Albany Street, not far from Primrose Hill.

perhaps did not realise that I might remember their comments which brought a vague horror and even terror of war which was not dispersed in later years by more noisy celebrations of victory.

A memorable event of quite another kind was a Fancy-dress [p. 098] Ball. My sister was dressed as Bo-Peep, her lovely hair rolled up in curls on her head and crowned by a saucy hat with cherry coloured ribbons; she carried a silver crook and a very handsome toy lamb. I was a fairy in a silver tissue dress decorated with real silver stars which my mother tried to sew on in the form of the constellations. These silver stars were lent by Elfrida Gerstenberg¹¹¹ who with her sister Nora and brother Arnold were intimate friends of our parents. I remember being anxious that no stars should fall off my dress. Dressing for a party was always a tremendous affair, all your clothes were taken off and clean ones from the skin, put on. Great attention was given to the hair - in my case even an ordeal by heat. Nails, hands and feet, too, received special attention, and when all was considered satisfactory you were rolled up in shawls till you could hardly breathe.

My mother's health became unsatisfactory so we went to live in the country. Sevenoaks was chosen, so that my father could get to London easily for his regular teaching work. Sevenoaks was then a small country town with a more modern suburb on lower lying ground; there were several beautiful and interesting villages round it, but at that time each and all had their own identity and life. The house to which we went had been the home of Samuel Lover¹¹², the Irish poet and novelist; he was a clever artist too, and the rooms were decorated with charming wood carvings from his hand. There was a small garden and a [p. 099] stable which made a wonderful playground for us. My father rented an acre of land from the neighbouring nurseryman. He laid out one part of it as a kitchen garden and planted fruit trees; the rest was made into a tennis lawn surrounded by choice shrubs and flowering trees. He also built a kitchen for my mother so that she need not go down to the semi-basement one of the house, but it was not a success and this room soon became his study.

¹¹¹ It is not known how the Gerstenbergs knew the Seeleys. They were the children of a prominent stockbroker and lived in Regent's Park – which is near the Seeley's home in Primrose Hill. Both Nora (Leonora) and (Annie) Elfrida attended University College, London. Maud would have met them before the mid-1880s. Elfrida married an Italian army officer in 1885 and went to live in Rome. Arnold died in 1886 at the age of 23, while Nora became a well-known suffragist and speaker and married a barrister, John Philipps, who subsequently was elected an MP and then became a peer, Viscount St David.

¹¹² Samuel Lover (1797-1868), who was born in Dublin, was a man of many talents. He painted landscapes, miniatures and portraits. He was also well known for his song writing, novels, poetry, operettas and plays.

Schools were a difficulty, and it was after some experiment that, at the end of about a year, my sister and I were sent to a boarding school in London. My further memories of Sevenoaks are of school holidays when walks in Knole Park were almost daily pleasures. The great trees, the lovely vistas, the colours of the trees and the bracken, so varied during the passing of the year, the fallow deer, and above all the old Tudor and Jacobean fronts of the great house, as large as a village in itself, with courtyard after courtyard, were to me never failing sources of enjoyment. The great house was rather mysterious, for the Lord Sackville of the time was a recluse and the house was not opened at all to the public. On one notable occasion, however, we were taken over the state rooms, where we saw the wonderful furniture and pictures as well as the famous silver fittings. This magnificence made a great impression on me, for though I had been taken to Hampton Court, this was the first great house I had seen as a home to be lived in; it gave [p. 100] me a vivid idea of what domestic life in the sumptuous days of the 17th and 18th centuries could have been to those in a position of command and in possession of wealth.

At this age, about ten years old, reading had become a pleasure, and an easy one at that; one day my sister and I came on a volume of Hood's¹¹³ comic poems; he is now mainly remembered by "The Song of the Shirt" which drew attention to the plight of seamstresses. He belonged to the practical joke age, when comic verses were turned out in great numbers. This volume of Hood led us on to read other verse and, I believe, to more serious reading.

I still went out walking with my father whenever possible, and round Sevenoaks visited with him sand pits and clay workings which he inspected to find out if they were suitable for field demonstrations to his geological students. I was encouraged to collect the fossils fairly common in both the sandstone and the clay.

Our parents took us on short walking tours at a really early age. The first I remember was to Leith Hill, where we slept at the Burford Bridge Hotel. We each carried our nightgown, slippers and tooth brush. I do not suppose we walked far, but the whole was such a delightful adventure that I always enjoyed the idea of walking for pleasure as in later years I so frequently did. Another time we went to Tunbridge Wells, again an adventure, with the rocks on the

¹¹³ Thomas Hood (1799-1845) was a British humourist and poet.

common and the Pantiles¹¹⁴ with the iron water in the town. We were alone with [p. 101] our father that time, joining our mother and baby sister at Folkestone later.

Friends from overseas as well as nearer home visited my parents from time to time. One day a tall thin young man with a reddish beard came to spend the day. He and my father got very wet visiting a geological site, I believe the famous Ightham one, where Mr. Harrison had recently found his "Eoliths", the earliest form of worked flints for tools, about which there was for long so much discussion and disagreement¹¹⁵. The young man had to be lent a frock coat far too wide for him; he looked quite ridiculous I thought as I watched them unseen from a perch in a large elm tree, while they sat on the lawn discussing the flints, and his wet coat was dried. Long years afterwards, locked away with a few cherished treasures after his death, I found an envelope containing my father's invitation to visit him at Sevenoaks, endorsed: "The first time I saw my wife". I was an irreverent schoolgirl of fifteen.

The boarding-school at Earl's Court merits attention, for the lady who directed it was far in advance of her time in many directions, and had a circle of interesting friends. I have long realised how much we all owed to her enterprise and energy, and I remember her with real affection. My sister and I went to this school very shortly before yet another sister came on the scene, but after a comparatively short time my sister's health failed and she had to remain at home, while I continued with [p. 102] Mrs. Cole until the family returned to London.

At that time Earls Court still had vacant the vast area later used for a series of exhibitions, including the cowboy displays of Colonel Cody. Needless to say the cowboys were greatly admired by the schoolgirls as far as our limited opportunities permitted. The horses were exercised in all the neighbouring squares and streets to our great pleasure. John Hunter's house in Earl's Court Road was being pulled down, the long brown brick garden wall still stood hiding the pond into which it is said he threw his discarded anatomical preparations¹¹⁶. Blocks

¹¹⁴ A Georgian colonnade that leads from the well that gave the town its name, the water from the well being particularly rich in iron.

¹¹⁵ Benjamin Harrison, shop-keeper and archaeologist, was at the centre of a group of archaeologists, geologists and palaeontologists – many well known - who searched the ancient gravels and fissures of the Kent Weald for fossils and flint tools – the evidence of early man. They were known as the Ightham circle, named after the Kent village of Ightham where Harrison lived. He had found crudely-shaped flints on the Weald, which seemed to some to be chipped in a way that could suggest they had been shaped or used by early humans. To the Ightham circle they became known as eoliths, literally 'dawn stones', possibly the very earliest recognisable artefacts made by man – pre-Palaeolithic man. For others, however, they were simply the work of nature. It was an argument that raged for decades.

¹¹⁶ John Hunter (1728–1793), surgeon and anatomist. He amassed a vast collection of anatomical specimens, which after his death was acquired by the Royal College of Surgeons and is housed there in the

of flats and many houses soon covered the site, including Barkeston Gardens and Bramham Gardens¹¹⁷.

The school had about twenty boarders and a large number of day pupils living in the near neighbourhood. The classes were small enough for us to receive individual attention, and there were visiting teachers for some subjects such as French. The French teacher of my time married one of the daily teachers to our intense interest and excitement. A very clever artist named Edwin Cooke, who had definite ideas about training the young mind, gave us drawing lessons. We had canvases painted black which we propped up on our desks, while we stood to draw in chalk exercises in line with bold arm movements. This I understand is a very modern method. He also tried to teach us the elements of colouring by interesting exercises with contrasting backgrounds. We were encouraged to invention and [p. 103] design. With his long hair, rough beard, and heavy garments, he seemed an uncouth figure to us at the time, but I know now that he was an inspired teacher. Mrs. Cole herself took charge of singing, in which we all joined, she taught us by the Tonic Sol-Fa¹¹⁸ method and achieved satisfactory results.

Another weekly visitor was a retired drill sergeant who put us through physical drill in the garden when the weather was suitable. We had small iron dumb-bells with which we went through various exercises. At different times extra items were included, such as a kilted Highlander with his attendant piper who gave us a course of reels. At another time a Swedish lady came to give us lessons in Swedish gymnastics, then a novel discovery here, though now a recognised form of physical training.

Mrs. Cole had several interesting friends and wide interests. Among these friends was Henry Bird, at that time accompanist at St. James' Hall and also organist at St. Mary Abbot's Church¹¹⁹, Kensington. He had a singularly delicate touch and sympathetic manner of playing the piano. He conducted an amateur choral society which met in Mrs. Cole's house. We girls crept down the stairs in our nightgowns in the half darkness to listen to the music and sometimes received biscuits pushed through the banisters by men members who caught sight of us in the shadows. Mr. Bird sometimes gave us musical talks and short recitals. I remember very well a talk on the difference between spinets, [p. 104] harpsichords and pianos with the

Hunterian Museum. Earls Court at the time was still countryside, and Hunter bought a property there where he kept living animals to study.

¹¹⁷ Both Barkston and Bramham Gardens exist today, east of Earls Court tube station.

¹¹⁸ A system of music education adapted by the Reverend John Curwen (1816-1880) from a method devised by a Norwich teacher, Sarah Anna Glover (1786-1876).

¹¹⁹ Where ASW and MILS were married on June 14, 1894.

reasons for those differences which again influenced the character of the music written for the particular instrument. He played Scarlatti and Corelli to us as well as other "period" composers, which opened a new field of pleasure to me. After such a talk the room would be cleared of chairs and he would play most delightfully dance music for us. We all loved him. Another musical treat of a different character was being taken to Westminster Abbey for evening service, when Mr. Cole sang in the special voluntary Advent choir.

Our Christmas theatricals were a particular source of interest and excitement for all the boarders, since we helped to make up the dresses, and on at least one occasion Ellen Terry's¹²⁰ daughter joined others to paint scenery. She also came sometimes to help us with charades. One memorable time Irene Barnes known later as Irene Vanbrugh¹²¹ was Beauty, wearing stage articles belonging to her sister Violet Vanbrugh, a most tremendous thrill for us to have a link with a real actress. I remember very vividly how Ellen Terry came and applauded us all vigorously, and at the end she held up in her arms the slim Irene so that she could blow out the candles in the Chinese lanterns hung across our simple stage.

The boarders had a regular domestic routine in addition to the school lessons, which I think induced a sense of responsibility and the knowledge that a community only lives together successfully when duties are shared and fully carried out. Of course [p. 105] we kept our bedrooms tidy and dusted, making our own beds. We all had duties allotted to us from time to time, and for some, such as waiting at table, a rota. The care of blackboards, which involved a thorough cleaning once a week, and the daily overhaul of chalk and dusters in each class-room, for the whole term was one; another was the filling and regulation of matchboxes, these being days before the general use of electricity. We were encouraged to do practical domestic work. I cleaned grates and laid the fires in at least three class-rooms daily for one term, and during another cleaned several pairs of shoes. I am certain that what I thus learned gave me understanding of the value of detail in routine work, as well as an active sympathy with those who carry out the hitherto less considered details of daily home routine. When it was discovered that some girls did not mend their clothes or know how to set about the job, a sewing woman was brought in to teach them during the after tea hour. It was not a popular

¹²⁰ Dame Ellen Terry (1847-1928) was considered the leading English Shakespearean and comic actress of the last two decades of the nineteenth century.

¹²¹ Dame Irene Vanbrugh (1872-1949) was a leading comic actress whose career lasted over half a century. A great supporter of RADA, the Vanbrugh Theatre was named in honour of her and her older sister Violet.

measure. I was excused, for my mother had early taught me to sew and even to make simple garments.

Our health was looked after, a daily half hour walk before morning school, except in the worst weather, and in quiet squares we were allowed to break rank to use a skipping rope or bowl a hoop. A longer walk was to Kensington Gardens for the [p. 106] afternoon hour of exercise. I came to love the great trees, the open spaces with the gracious palace building in the background. We were very much pleased once when a passer-by remarked: "What a cheeky-looking lot of girls". We took it as a compliment, as indeed it was to our school mistress and teachers. We were really very well fed, though we grumbled of course. Porridge with cold ham, sausages on Sunday and suchlike. I have never eaten better hams anywhere. They were always very large. Mid-day large joints, usually hot, boiled beef in huge masses and really first-class, with solid puddings. Tea at 6 o'clock was an affair of big slices of bread and butter with ham. All good and most nourishing. We had milk at 11 o'clock all those long years ago.

Our Saturday afternoons were varied by visits to the South Kensington Museums; sometimes a selected few went to a concert, and once a number of us went to Westminster Abbey where we were shown Henry VIII's Chapel, also the Jerusalem Chamber¹²² with the adjoining rooms and some of the treasures kept there, including the funeral effigies, then not usually shown.

Children usually grumble about school and I expect I did so, but I know I was happy there, and to this day have a few cherished friends among former school-mates. Of course, parents came to see us and took us out sometimes. In this way I went to hear Sir Charles Halle¹²³ and also Joachim¹²⁴ at the old St. James's Hall¹²⁵, and I went also to an occasional lecture.

[p. 107] It was sometime during this period that I became more aware of the misery in which so many people lived in the larger towns. As a tiny child I took it for granted that the children in the back streets had no shoes, running barefoot as well as being clad only in rags, as so many were in Chalk Farm, the neighbourhood bordering that where we lived, in my earliest recollection.

¹²² The Jerusalem Chamber dates from the 14th century. The walls are wood panelled and hung with 16th and 17th century tapestries. It is one of the private rooms of the Abbey and not open to the general public.

¹²³ Sir Charles Hallé (1819–1895), pianist and conductor.

¹²⁴ Joseph Joachim (1831–1907) a famous violinist who in 1871 was hailed by a music critic as 'the greatest living violinist'.

¹²⁵ The large and elaborate St James's Hall in Piccadilly, London, could seat more than 2000 people. It opened in 1858 and was demolished in 1905.

My parents were much interested in the College for Working Men and Women and were acquainted with that notable pioneer, Emma Cons¹²⁶, who may be called the grandmother of the Old Vic Ballet and Opera. My father lectured for her when she started to civilise Lambeth by the purchase of the Victoria Palace of Varieties¹²⁷. When we had been with him to hear him lecture with bright coloured slides there, it was a really supreme thrill to walk through the streets to the nearest Underground station with two policemen walking close behind us. In order to help her, my mother organised a day in the country for the members of a Lambeth women's club. She borrowed a field from a farmer, persuaded a friend to lend her a tent, collected a number of cradles and perambulators, so that when the women arrived in the horse char-a-banc, the babies were put to bed by a helper and mothers were free to enjoy what had been prepared for their pleasure.

[p. 108] Here is an extract from Miss Cons' letter to my mother: "I only wish that you could have heard everyone's expressions of happiness, and that they had never had such a perfect day. As to your idea of the tent and the lady who so kindly lent it and your numerous cradles, they were the crowning happiness of the day to the poor mothers. One poor woman had not been to the country for ten years ----- To be freed from carrying their babies about was an unexpected bliss added to the treat of being in the country. They kept running back to have a look at their babies and off again for another frolic ---". This event made me think a good deal about how other people lived, that is those with whom I did not come in contact or hear about. It must be remembered that in 1886 "treats" had not become regularly organised as they did later, and that this outing was an unusual event. Another event of a very different sort was the fact that my mother joined a Ladies Choir which sang the then little known Brahms' music for women's voices. This was my first introduction to more modern music than the tried classics or the lighter Schubert and Mendelssohn.

We were, of course, taken to see the successive exhibitions at South Kensington which brought so much that was then far away and strange, in India or the colonies, near enough to make people interested to see so much and curious to know more. In this way I saw electricity used for the first time on a large scale for illuminations and general lighting. The almost

¹²⁶ Emma Cons (1838-1912) social reformer, educationalist and theatre manager and an energetic supporter of women's suffrage.

¹²⁷ The Victoria Theatre was a music hall in Waterloo Road, Lambeth. In 1878 Cons leased it, refurbished it and in December 1880 she reopened it as the Royal Victoria Coffee Music Hall. Cons was an ardent promoter of the temperance movement, so only non-alcoholic beverage was served.

magical effect of turning a switch with an instantaneous result was enchanting after the slow lighting up of gas decorations. The Jubilee¹²⁸ procession of 1887 was, of course, a tremendous [p. 109] excitement from the moment of early waking and putting on our best clothes before breakfast, a hurried and excited meal. Then the train journey from Sevenoaks to Charing Cross and a tortuous passage to the back of Burlington House¹²⁹ where we entered the closed courtyard by the old stables gate which now serves for the entry of pictures to the Royal Academy walls or cellars. My father had obtained two seats in the Geological Society's stand and two in that of the Linnean Society; he was an active fellow of both Societies. The stands were erected over the area and behind the railings so there was a first class and very close-up view of everything, the procession with all its grandeur and pomp, and the humours of the crowd. The splendid array of princes on horseback was an almost unbelievable sight followed by the lovely ladies in elegant carriages, all surrounded and accompanied by soldiers of all possible variety in the most splendid of uniforms, and then the little old lady in black, the diamonds edging her bonnet all twinkling in the gay sunshine. It was a sight to stir even a young heart still cherishing fairy tales. Though my sister did remark with some disappointment: "I did not know she was so little and so old". One child was with one parent at the Geological Society and the other at the Linnean Society. The two younger children were too small for such a fatiguing day.

I left school in 1890 with certificates from the College of Preceptors¹³⁰, the Tonic Sol-Fa Association and the [p. 110] Royal Drawing Society.

With the return of the family to London another part of my experiences opened. I entered Queen's College in Harley Street where my father was Dean. It was the earliest college founded for the higher education of women, Bedford College coming into being very shortly afterwards. There I was no longer a directed schoolgirl, but a student who had to work out her own salvation if she had a mind for it. I did not distinguish myself at all although I managed to get my Associateship. I did, however, learn the right way to read and study, and how to apply my knowledge. I made several firm friendships and am happy to have held them fast through the stresses of many long years. Among those friends is Elsie Colby, whose uncle had known my father in his Cambridge days. Her parents invited me to visit them at Aberystwyth during

¹²⁸ The celebration of Queen Victoria's 50th anniversary of her succession to the throne.

¹²⁹ Burlington House in Piccadilly houses both the Geological and Linnean Societies.

¹³⁰ Originally the Society of Teachers, now the College of Teachers.

the summer of 1892, a very delightful holiday for a town girl. I saw mountains for the first time, and rocky shores very different to anything I had previously seen in the chalk or sandstone cliffs of the South coast. The pleasure and happiness, with widening experiences, was extended the following year when I accompanied Mr. & Mrs. Colby and Elsie on a tour of Scotland. The historic and memorable cities of Edinburgh and Stirling awakened interest in past events and people, while the loveliness and splendour of the lakes stirred romantic interest and poetic emotions. We travelled sometimes by horse coaches, sometimes by train, and up the Caledonian canal by steamer, but most [p. 111] memorable of all that we saw and visited remains Staffa and Iona. The music of Mendelssohn's Fingal's Cave instantly brings to my memory those thrilling days spent in perfect weather among many beautiful and deeply moving scenes and in happy friendship. It was an awakening experience.

During this period my sister and I went to the first regular Sunday concerts at the Albert Hall, which were frequently organ recitals, but I do remember hearing the young Clara Butt¹³¹ and her sister sing there. Her voice entranced me and how I longed to sing as she did! But I had no voice, alas. It was possible to get a chair in the Promenade for threepence, and a seat in the Amphitheatre cost sixpence. We also went to hear Paderewski¹³² and Piatti¹³³ as well as other first class artistes at the St. James's Hall. Once I was taken by my parents to see and hear Sarah Bernhardt¹³⁴ in *Tosca*. I am always glad to have seen and heard so great an actress and artiste, though at the time I found the experience rather overwhelming and exciting.

Now at the end of my college days armed with my certificate duly signed and sealed, I was expected to make my own way in the world. The young man who had visited my father at Sevenoaks had not lost sight of the fair-haired young girl through the years, and now when the opportunity came, he asked her to marry him. Our parents on both sides were dismayed, but we knew what we wanted. Arthur Smith Woodward and I were married on a lovely June day in 1894, when we began with hope and faith [p. 112] our long partnership of love and work.

My father, Harry Govier Seeley¹³⁵, F.R.S. was Professor of Geography and Geology at Kings's College in the Strand. His father and grandfather had been medical men, who were also

¹³¹ Dame Clara Ellen Butt (1872-1936) and her sister Ethel Hook.

¹³² Ignacy Jan Paderewski (1860-1941) was a Polish pianist, composer and politician.

¹³³ Carlo Alfredo Piatti (1822-1901) was an Italian cellist and renowned teacher.

¹³⁴ *La Tosca* is a five act drama by the playwright Victorien Sardou. It was premiered in Paris in 1887 with Sarah Bernhardt in the lead role.

¹³⁵ (1839-1909). See also the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

at heart artists; both had considerable skill and were more interested in their hobby than in their calling, so the finances of the family suffered. His mother was Huguenot.

My mother was a skilled musician and a good linguist, speaking and writing French, German and Italian. To her I owe my skill and interest in practical needlework, for she taught me to sew at an early age, even giving me paper patterns for my doll's clothes, in that way I learned to make my own. Our home contained some fine rosewood furniture and a very beautiful Aubusson¹³⁶ carpet; it had a large bunch of gay flowers in the centre, but the main ground was a lovely deep maroon colour over which wandered blue ribbons and light coloured arabesques. It was a joy to me from earliest childhood. It became worn in course of time and I can remember the day before a party crawling over it, paint box in hand, to colour worn threads which showed up too aggressively. It was supposed to have come from a French palace. The rosewood furniture was out of fashion at that time but was a beautiful deep colour.

We went to Norway for the honeymoon. Norway had not then become a playground and there was little provision anywhere for travellers except the very simple arrangements which satisfied the people of the land. The attraction for me was the fact that there were no fossils in the rocks which build the landscape, nearly all are volcanic and unfossiliferous – I was not going to have any rival for attention – I failed of course in such an ignoble desire; a small museum in Trondheim contained a few specimens.

We went direct from Hull to Christiania (Oslo) where Dr Woodward had friends made on a former visit. These friends were very kind, showing us the most remarkable features of the neighbourhood, and helping us to plan our journey. They took us to see the Viking ship which had been uncovered showing its structure clearly with the shields of the warriors arranged along the sides. It has been the model for many reproductions and gives an accurate idea of the form and use of such ships.

A Norwegian company had started a tourist steamer to the Land of the Midnight Sun visiting all the most remarkable and interesting natural features on the journey with a carefully arranged time-table. We joined her for her second trip to the North Cape and found a pleasant and cosmopolitan company on board the small steamer which was quite comfortably fitted according to ideas of that time. In Norway then there was very little railway, so that we

¹³⁶ A carpet made in the village of Aubusson in central France.

engaged a small carriage with two cream coloured little horses with which we drove across the country, beside lakes, over steep mountain roads, by flowery meadows to the coast at Bergen, a lovely and peaceful experience which took several days. The [tumbling] mountain streams which entered the deep narrow fjords whose sides were crowned by snow covered peaks were an impressive sight.

At Trondheim we joined the Sigurd Jarl¹³⁷ which carried us to the North Cape, a sheer wall of rock rising from the ocean dark against the sky brilliant with the midnight sunshine. Many passengers fished for cod and one brought up a wolf-fish caught by a hook holding the tail, it sprung around on the deck trying to bite someone. We went on to Hammerfest to see the meridian mark¹³⁸, there were large quantities of cod-fish drying on the rocks also. A Lapp encampment was visited where the large herd of reindeer was let out to graze until they were needed again. The clicking noise of the hooves was loud and remarkable caused by the manner in which the hoof spreads on the surface of the snow to prevent the animal sinking through the surface. The Lapps themselves seemed almost dirty in their skin clothes and their legs and feet malformed. We also visited a whaling station where the whales were anchored off the shore decomposing in the water and smelling worse than anything imagined. Then after a week spent at a health resort high up in pine woods and among lakes above Trondheim [p. 115] we returned to London and settled down to the routine of work varied by frequent excursions to see a newly discovered specimen, or to help a solitary research worker. Also we were able to begin the entertainment in a very modest fashion of visiting students and research workers from far and near, thus starting and cementing international friendships. At first this entertainment was only to a very modest meal in our all-new and tidy little home, to meet some desired acquaintance, or we conducted the visitors to places of particular interest.

¹³⁷ The D/S Sigurd Jarl was brand new and only delivered to the owners on May 8th in that year.

¹³⁸ The monument marking the start and most northerly point of a 2820km arc that stretched to the Black Sea. Commencing in 1816, the surveying of this arc with 265 triangulation points enabled an accurate estimate of the size and shape of the planet.

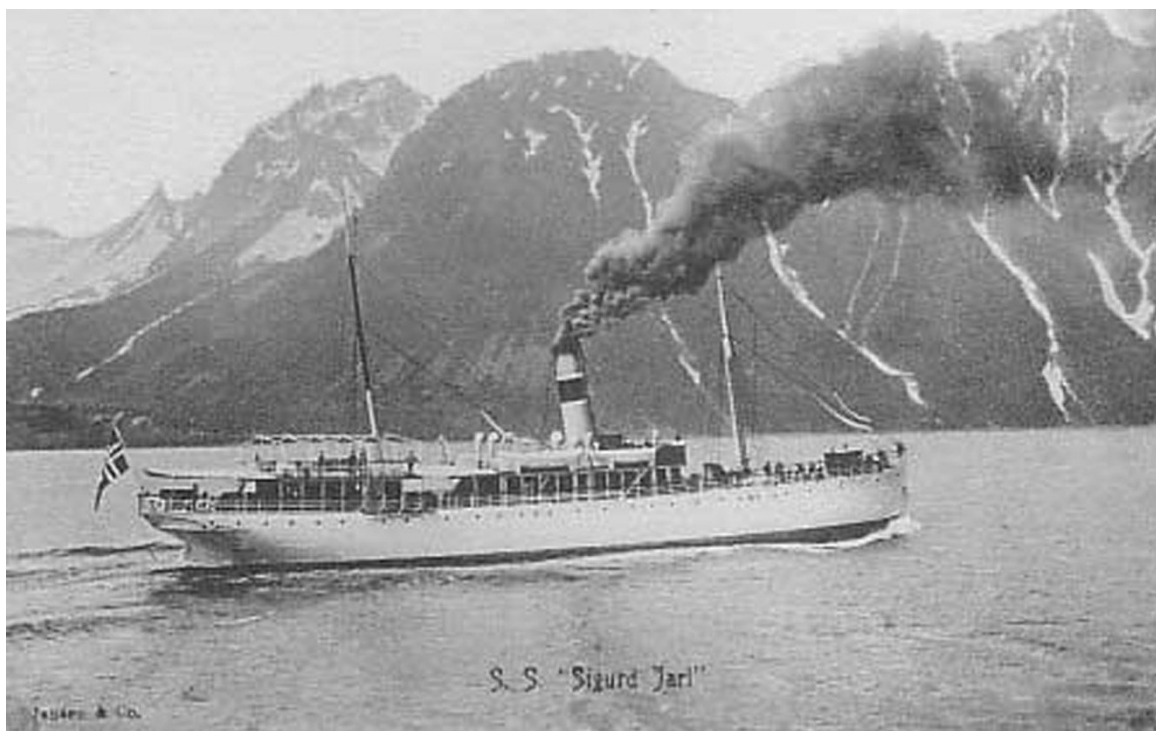


Fig. 10. The Smith Woodward's honeymoon ship. (Courtesy of Bjørn Milde, Norway)

The next year my husband wished to study certain material in the Royal Library at Naples. The most inviting route to our lively fancy seemed to be by way of Athens. We had been given a large etching of the Parthenon and Arthur's brother¹³⁹ had the previous year visited the famous city where he had some contacts, so the variation from a more usual route had some inspiration. The very beautiful mountain country seen from the railway running along the southern shore of the Gulf of Corinth put us in tune to appreciate the beauty of Athens and its situation between the mountains and the island-studded sea. We were prepared to be enchanted, and the actual vision made the enchantment certain. The clear atmosphere, the warm sunshine, the mellow colour of the time worn marbles, with everywhere brilliant flowers produced a frame of mind which was ready to capitulate to the sum total of the beauty which surrounded us. We spent several days among the historic remains of Athens' [p. 116] greatness and made a few excursions, one of which was to the famous mound at Marathon; on the return journey we were able to stop at a place called Pikermi, where there was a stream and French scientists had dug up remains of prehistoric horses and antelopes. We saw the site of the digging but found no trace of bones¹⁴⁰.

¹³⁹ John Harold Woodward (1865-1927).

¹⁴⁰ The Smith Woodwards returned here in 1901, where ASW excavated with spectacular success [see below].

The Corinth Canal had been opened about a year which made a visit to Delphi much easier than formerly. We arranged to go by steamer to Itea¹⁴¹ on the Gulf of Corinth and then to drive up to Delphi where we spent a night, we wandered about the ruins of the temple which has been badly wrecked by earthquakes, the gates of Hell broken open, and the fissure which allowed the inspiring vapour to rise to the priestess closed. Early in the morning we drove down to the little port only to find that the steamer had come in and left two hours before schedule. The captain had been persuaded to hurry on by parliamentary candidates for the elections about to take place. It was fortunate for us that a friend resident in Athens was with us. After a great deal of talk it was decided that we should row across the 25 miles, a distance greater than from Dover to Calais, but fortunately the weather was very quiet and the sea very calm though storms do get up quickly. I told them I was not afraid, so we embarked and after six hours rowing reached the far side with our programme completely upset. We had to spend the night there and by good fortune did indeed see [p. 117] a good deal of what we had planned before going on to Naples to complete the reason for the journey. There we had a busy fortnight working partly in the Royal Library and partly in the world-famous Aquarium where Arthur already had several friends.

In 1901 Sir Edwin Egerton¹⁴², the British Minister in Athens, became interested in the remains of fossil horses and other creatures which the French had dug up at Pikermi, a wooded ravine half way between Athens and Marathon. On enquiry he learnt that all the finds had been taken to Paris. As a good Britisher he thought the British Museum should also have a collection and set about organising an effort in good earnest. He made enquiries about conditions for collecting, contacted the landowners to get permission and the University for its approval, and then approached or rather attacked our Foreign Office who in turn applied to the British Museum Trustees to send someone out to collect. Eventually after long discussion and enquiry my husband was asked if he would go to collect for the Museum under the protection of the Minister, Sir Edwin Egerton. By that time we had a tiny boy who we were unwilling to leave, but eventually satisfactory arrangements were made and the Museum Trustees guaranteed the necessary funds.

¹⁴¹ The sea port for Delphi, on the north coast of the Corinthian Gulf.

¹⁴² Sir Edwin Henry Egerton (1841-1916) was a British diplomat, envoy to Greece from 1892-1903.

As soon as we arrived in Athens, the Minister welcomed us, and with Dr. Skouphos¹⁴³ of the University we went out to the farm at Pikermi to find out what were the detailed conditions [p. 118] for ourselves and to make arrangements for labour. There was an old stockaded area with a high wall round it, into which flocks would have been driven at night for protection from the thieves and wolves. The dwellings of the farm workers were small huts huddled against the wall, except the Intendant's¹⁴⁴ house, a grand two roomed building with a paved area in front of it; this was handed over to us. It contained two box beds, a rough table and two or three chairs, also a few hooks on the wall. Here we made our home for the next months with a tent for Dr. Skouphos when he was with us. The whole of the enclosed area was rough with masses of native rock rising through the beaten earth. A large barn with the olive press occupied one side of the square. We found that the shepherd every evening brought his mixed herd of sheep and goats to the shelter of the surrounding olive groves, and that he would leave some milk for us before returning each morning to the mountain sides for pasture. There were a few fowls about and we should be able to buy eggs and an occasional bird.

Eventually we had eaten all that were available. Also it would be possible to obtain a young kid from time to time, but otherwise we had to bring all stores and food including bread from Athens, and that happened about once a week. The bread became very dry. The Legation provided a good deal of tinned food whenever Sir Edwin came on a visit and Dr. Skouphos brought out a grocer's order whenever he came on his weekly visit. [p. 119] We borrowed sheets and towels from the hotel, but forgot tablecloths which we missed whenever we had visitors. All the food had to be cooked in the open on a wood fire with a small boy in charge to turn the improvised spit and heap on more twigs. We had a spirit lamp for the kettle, of course the spirit had to be brought from Athens. It was all very very plain and simple but we thrived on the fare. Sir Edwin paid frequent visits and always brought a prepared meal, a welcome change from Maggi soup and sardines!

At one time Lady Egerton, who was a charming Russian lady¹⁴⁵, arranged for me to return to Athens with them for a brief visit. I was thankful to have a real bath and to have a shampoo. The day after I arrived was the King's Birthday, and there was to be an all men's dinner party. Lady Egerton and I were to have a meal in the schoolroom. As the assembled guests were

¹⁴³ Dr Theodore Georg Skouphos, Conservator of the Geological Museum in the University of Athens - see the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

¹⁴⁴ A high-ranking official or administrator.

¹⁴⁵ Olga, daughter of Prince Nicholas Lobanow-Rostowsky of Lobanoro, Russia.

about to go in to dinner it was discovered that the party numbered 13. The Second Secretary was sent off to bid Lady Egerton and me to join the party. Dinner had to be delayed while Lady Egerton's maid found a suitable dress for me in the wardrobe and Lady Egerton changed into a more festive garment with her jewels to honour the event. It turned out to be a lively evening, and I for one enjoyed it.

Another time I went to spend a couple of days with a Greek family when I had a most interesting glimpse of high-class domestic life. In the evening we drove down to the small but [p. 120] fashionable resort of Raphina¹⁴⁶. Dinner under the stars began at 9.30 o'clock, this was followed by a visit to a circus and then to a café before going back to Athens and bed. In the warmer weather all business offices and shops close in the middle of the day while the world sleeps.

As time went on more and more visitors came for Greeks have always been curious about new things, all the more enterprising members of the government including the elder M. Venezelos¹⁴⁷, and some members of the diplomatic corps, Mr. Bouchier of *The Times* and Greek newspaper men. The two hours drive in the late afternoon gave an excuse for a picnic evening meal to which we were usually invited. All the time the diggings went on steadily until the barn containing the olive press was full. The pay was good and so were the conditions, though the men agreed to work Sundays and holidays. We had no difficulty in getting a good class of worker and as many as we could employ. It was easier to reach the bone bearing beds from the dry river course, so that most of the excavations were on or near the banks of the stream, in one case right in the stream bed. When the reservoir higher up the mountain became full, the river was turned into its natural bed and there was a certain amount of trouble and hurry in the digging until it was turned off again. Later in the season a very heavy thunderstorm again flooded the workings and in the efforts to pump them dry a fire engine was borrowed from the army, as the farm pump was not strong enough. The captain and his men enjoyed the outing and I had a pleasant jaunt round the countryside on the [p. 121] fire engine.

A very large collection of bones from a varied fauna had been accumulated and this was divided equally so far as possible between London and Athens. The diggers were paid off and carpenters brought in to box up the finds. So we said farewell to all who had helped and went

¹⁴⁶ Rafina.

¹⁴⁷ Eleuthérios Venizélos (1864-1936). He became Prime Minister of Greece in 1910.

on to Euboea on the invitation of Mr. Noel¹⁴⁸. On his estate were more bone beds and these proved to be similar those at Pikermi. We spent a few days digging there, and then, as it was becoming really hot, we set out for home coming through Italy and across Germany.

Twenty-five years, after leaving Beirut we spent a few days in Stambul¹⁴⁹ and passed by way of Athens to Cairo. The packing cases were just as we had last seen them at Pikermi only dustier. They had never been opened, resting as they were in the cellars of the University Museum in Athens. And there they are still as far as I know, lost to the world of science.

¹⁴⁸ Possibly Frank Noel, the paternal grandfather of the Labour politician Francis Noel-Baker (1920-2009). The Noels had been owners of a large estate on Euboea for at least two generations – and still are.

¹⁴⁹ Istanbul.

PART III - Lady Smith Woodward's memories of travels with Sir Arthur to South America (1896), the United States of America (1900, 1904 & 1933), Spain (1902, 1905, 1908 & 1910), Russia (1903) and Transylvania (1906).

[p. 122] **SOUTH AMERICA**

Towards the end of the nineteenth century there was a discussion concerning the possibility that at a not distant geological date, there had been a great Antarctic continent. If such a continent had existed in fact, it would have connected South America and South Africa with Australia and New Zealand. The fossil animals found in the latest rocks of the several countries should therefore be more closely similar to each other than are the animals surviving in those different regions today. Remarkable remains found in Patagonia seemed at first sight to be very like some of those found in Australia. This theory interested my husband so much that he determined to go to the Argentine if at all possible to see the evidence for himself.

Dr. Francisco P. Moreno¹⁵⁰ had recently founded a great museum in La Plata which contained a very large collection of the fossil remains of remarkable South American animals obtained largely from the excavations for the then new docks at Ensenada. This was an additional enticement, as was also the opportunity of making the acquaintance of Dr. Florentino Ameghino¹⁵¹, a distinguished palaeontologist at that time working on the collection of fossils which his brother had brought back from Patagonia. The great difficulty was the cost of the projected journey. When the Trustees of the British Museum were asked for a grant, they replied that all dealings with South America could be conducted [p. 123] by post. A very different attitude from that prevailing today towards members of the staff wishing to engage in special research. However, the Geological Society of London had recently awarded Arthur the Lyell medal¹⁵² which carried £25. This amount added to every possible saving made the journey possible for both of us, and in the autumn of 1896 we set off on our hoarded holiday, for no extra vacation was allowed, as well as no funds.

The journey by Royal Mail steamer took us by way of the Cape Verde Islands to Pernambuco in Brazil, where we had our first view of a tropical town, transhipping into small

¹⁵⁰ Francisco Pascasio Moreno (1852-1919). See the chapter on Lady Smith Woodward's tablecloth (Milner, 2015).

¹⁵¹ Florentino Ameghino (1854-1911), along with his two brothers Juan and Carlos, was a highly influential Argentine palaeontologist and anthropologist. He was the Director of the Palaeontology Department at the La Plata Museum under Moreno for a short while.

¹⁵² See Shindler & Smith, 2015.

boats in the open roadstead. Little carts carried what looked like road sweepings but was really crude sugar on the way to the refinery. Next we came to Bahia, the ancient capital of Brazil, which is situated in a beautiful bay. The port and lower town at the foot of the steep cliffs, were inhabited by the descendants of African negro slaves, and were incredibly dirty and untidy. The upper town was at the time reached by means of a lift in a shaft cut in the solid rock with openings at intervals for ventilation, it was worked by means of large chains lubricated with evil smelling and hot castor oil. This part of the town had clean streets, beautiful gardens and fine houses as well as a few old Jesuit churches, one of which was still disfigured by the black paint with which it was covered to mark the grief felt at the death of King John of Portugal.

[p. 124] At Rio the Director of the Geological Survey, Dr Orville Derby¹⁵³, and an English friend met us with a launch and took us ashore for a couple of days. Rio was still a most primitive and unhealthy city with a large population, descendants of freed negro slaves. It had narrow crowded streets, plank sidewalks, often rotten, and few open spaces except out in the residential suburbs reached by mule-drawn trams whose profits were represented by the number of people who managed to hold on to any available part of the contraption. The city authorities however had already learned the importance of preventing the breeding of mosquitoes, in keeping yellow fever in check, and there were organised parties of men who kept all stagnant water covered with a film of oil.

As we had steamed to our anchorage we passed close to a fort which had been nearly knocked out of the water in the late revolution, the insurgents had possession of the two forts, while the navy remained with the government. A navy vessel used to go between the two forts firing into them, the forts were afraid to answer for fear of hitting each other; the warehouses on the quays also showed shot marks. With Mr. Mawson¹⁵⁴ we climbed Corcovado, the conical mountain rising up from the city, to enjoy the view of the bay and the surrounding mountains. The statue of the Virgin¹⁵⁵ was not erected on the peak of Corcovado where it dominates the city until several years afterwards. [p. 125] We got half way up the mountain by means of a

¹⁵³ Orville Adalbert Derby (1851-1915), an extremely able American geologist who took his own life when economic cuts due to the war in Europe undermined his work and position as chief of the Brazilian Geographical and Geological Survey.

¹⁵⁴ Joseph Mawson (1830-1927), English railway engineer and fellow of the Geological Society of London. See the chapters on Lady Smith Woodward's tablecloth (Milner 2015) and Woodward's giant coelacanths (Maisey 2015).

¹⁵⁵ This is the famous statue of Cristo Redentor (Christ the Redeemer).

cog-wheel railway when the engine broke down and we had a very stiff climb to the top, repaid by the magnificent view to the Organ Mountains and the lovely bay which lay below us, sprinkled with verdure clad islands and fringed by forest.

We also made an excursion to Botafogo, a bay within the larger bay, to see the forest more closely. The whole tropical forest seemed to us untidy, with dead unsightly stumps standing up in the midst of wonderful luxuriance, there were no little carpeting flowers, the scarlet begonias were quite large shrubs, and orchids broke the mast-like surface of the towering palms. After leaving Rio the sea became very rough so that with the heavy rolling of the ship we fell out of our bunks. We called at Monte Video, the capital of Uruguay, but did not land, as the transshipment was often dangerous; passengers were swung down to the launch in a chair by crane. Even when it was calm the decks of the launches were swept by waves; a small pampero¹⁵⁶ was blowing at the time and we could see the waves breaking over the sea wall. Soon we were in the shallow muddy waters of the River Plate, which is so wide that it appeared to us as if it were the sea, and eventually we reached the docks at Ensenada, about thirty miles from Buenos Aires to which we travelled by train. The city was on the plan of a modern Spanish town with narrow streets crossing each other at right angles, and at least one large central square which was adorned with palms and surrounded with government buildings. The [p. 126] streets were narrow to give as much shade as possible from the burning sun of summer. A beginning was already being made to lay out parks and pleasure grounds in the suburbs of Palermo and Tigre. One street with luxury shops, the Florida, was reserved solely for foot passengers; it formed a fashionable promenade in the city. Notwithstanding its Spanish foundation the city was inhabited by a strangely cosmopolitan crowd, and in the streets during the height of business at midday we seemed to hear more English than any other language. We stayed in the Royal Hotel, which was considered the best one, and were amused to read on our bedroom wall a notice in three languages expressing the hope that for the reputation of the hotel, no man would sleep with any lady but his wife. An interesting commentary on local social customs at the time.

The National Museum was still in the original old building, very overcrowded, inconvenient and badly arranged; some years later it was removed to a fine and suitable

¹⁵⁶ A strong cold southwesterly wind that blows from the Andes across the pampas.

building near Palermo. The Director, Dr. Carlos Berg¹⁵⁷, a Russian entomologist, who was much interested in all branches of natural history, showed us round the collections. Later he gave me a collection of local stamps as a keepsake. A statue of his predecessor stood in the courtyard, since a memorial to a foreigner could not appear in a more public place.

My husband together with a fellow passenger, Mr. Herbert Lewis¹⁵⁸, from the ship, had an opportunity of seeing something [p. 127] of the great cattle industry of the country. They were invited to a sale of stock on one of the large estancias or farms. All the beasts had been bred on the estate, and were beautifully kept in modern buildings of the most hygienic plan. The farmers had 1000 beasts where our people would have 100. A great feast had been prepared for the numerous buyers; oxen roasted whole in their skins to keep the juices in, and other local luxuries.

Mr. Herbert Lewis, afterwards Sir Herbert Lewis, was accompanied on the ship by two fellow members of Parliament, Mr. David Lloyd George, afterwards Prime Minister, and Mr. Henry Dalziel¹⁵⁹, afterwards Lord Dalziel. We had seen much of these three friends on the voyage, and when they found that they had not time to make the trip to Chubut¹⁶⁰ which they had planned, we suggested that they should accompany us to a resort in the mountains of Cordoba which we had arranged to visit. They agreed to this proposal and followed us as soon as they had completed their business. We travelled at night by sleeping car to Rosario, for the Pampa was a monotonous land covered chiefly by grass and alfalfa for feeding stock, and introduced from Europe; scarcely anything of the native vegetation was to be seen except in small hollows and ditches. The large fields and estates were divided by wire fences and the only trees were a few native ombu, shaped rather like an oak, and rows of eucalyptus from Australia. On the top of various tree stumps were some interesting nests built entirely of mud, each having two [p. 128] chambers, with the young birds always kept in the inner one.

We found Rosario to be a city of magnificent distances and the most unfinished place of scattered habitations to be imagined. We were glad on the next night to travel again by sleeping car to the ancient Jesuit city of Cordoba, one of the oldest cities in South America. Its numerous churches and picturesque old houses gave it an old world appearance. From

¹⁵⁷ Frederico Guillermo Carlos Berg (1843-1902). He was born near Riga in Latvia. See the chapter on Lady Smith Woodward's tablecloth.

¹⁵⁸ Sir John Herbert Lewis (1858-1933), Welsh politician.

¹⁵⁹ James Henry Dalziel (1868-1935), Scottish politician and newspaper proprietor, and like Lewis, a close associate of Lloyd George who rewarded him with a peerage.

¹⁶⁰ A province in southern Argentina.

Cordoba we travelled by day along a small railway ascending the mountains by twists and turns up the valley of the Rio Primero, No. 1. The rivers running from the mountains in this part of the country were merely numbered not given names. Our destination was Capilla del Monte, Forest Chapel, where we spent a week in a small and very simple hotel kept by an Englishman. It is chiefly a granite country traversed by a few small streams and made rather dry and in places almost desert-like by hot winds from the Gran Chaco¹⁶¹.

In the rocky crevices between the granite blocks and pillars we saw palms, mimosa, ombu, cactus, nearly everything with thorns. As we were there in early spring there were many beautiful flowers to delight us. At some distance higher up the mountains became slatey and covered with thick forest chiefly mimosa. The settlers or small farmers whom we saw in the district were mainly occupied with the breeding of goats, which existed in enormous numbers, providing skins for export to manufacturers of kid gloves. Most of the settlers lived in very small huts built of dried mud, [p. 129] adobe, thatched with local plants. These dwellings were so simple as to have no doors or windows; when the owners left their home or wished for privacy, they placed in the entrance a pair of long crossed sticks which were respected as a barrier.

Capilla del Monte was only just beginning to become a pleasure resort and we thoroughly enjoyed the primitive wildness of the surroundings in which we walked and scrambled. Everything was strange, the thorny scrub, the brilliant flowers, the strange insects, the birds and the lizards. We longed to see more, and as soon as the Members of Parliament arrived we hired horses and arranged for longer trips.

One day we rode to a deep irregular ravine in the granite hills which the natives had named Mogotes, meaning Big Stones. It was wild granite country on a large scale, and made all the more striking to us by the presence of condors which soared high above us. The peon¹⁶² who went with us roasted a kid on a wooden stake for a spit, to serve for our mid-day meal, and one condor at least was high overhead all the time, watching the desirable delicacy. Among other birds we watched the gay and noisy parrots and the dainty humming birds with special pleasure. We also saw several of the characteristic South American rodents, but we

¹⁶¹ A vast plain that extends through northern Argentina, southeastern Bolivia, northwestern Paraguay and into a small area of southwestern Brazil.

¹⁶² A farm labourer.

searched in vain for armadillos. We were told that there were pumas and wild huanacos¹⁶³ in the mountains, but we never met with them on our rides. Another day we rode to a disused gold mine worked by the Jesuits. We had a long and hot ride very up- [p. 130] hill and down-dale and when we arrived we found the peon who had been sent on with our lunch had not even made the fire. We rested in the mouth of the mine while the kid was roasted, and after the meal explored the mine which had been begun by the Jesuits and had been carried on at various times by a number of different persons; it was very rich, but they had no machinery up there to crush the quartz. Friday the next day was the one we best remembered. As some of the party were stiff from the unaccustomed riding our lunch was sent on only a short distance to a valley called La Toma. We were a party of seven, the M.Ps, ourselves, a German chemist who joined us, and a guide. We rode over undulating ground covered with a plant resembling broom in shape, but with buttercup-shaped flowers, a blaze of yellow blossom, called retamo. The large white cactus flowers shone like stars in clusters upon the ground at intervals.

In a short time we reached a plain where we had a gallop, and then entered the valley which contained a very cold stream known as Rio Kald Balumd; the mountains on each side were of schist and very fine being partly clothed in a wood of mimosa, algaroba¹⁶⁴, molle¹⁶⁵ and quebrache colorado¹⁶⁶ – much of it in flower. Our mid-day meal was taken in the shade of the trees on the bank of the stream; it was ideally beautiful and we might even have imagined ourselves in an earthly paradise except for the flies. By this time we had come to an understanding with and to like our horses, for they were wonderfully surefooted, going over the roughest and stoniest [p. 131] ground without stumbling. One could not have gone on foot so safely.

As it was early to return our German companion suggested a longer ride to a rancho in order to see the native style of living, we could ride back by moonlight, to which we all agreed. So the peon was sent to the hotel for more provisions and a guitar. He went by a short route to Ochoa, as the rancho was called, while we took a winding way through a very narrow and deep wooded valley. The path for the most part ran along the bank of the stream, sometimes in the stream, and at almost all times there were large blocks of stone like stairs to be mounted

¹⁶³ Guanacos are wild relatives of the llama.

¹⁶⁴ "Algarrobos" - a tree of the genus *Prosopis*.

¹⁶⁵ Probably *Schinus molle*, an evergreen tree with many useful antibacterial, antiseptic, antidepressant and insecticidal properties.

¹⁶⁶ Quebracho colorado, a tree native to this area.

before a comparatively level track presented itself for a short distance. It was a most beautiful ride through woods fragrant with mimosa in bloom, sweetly smelling mints and other herbs. The hillsides were covered with small trees in their early spring foliage presenting tints similar to those of autumn with us, here and there one covered with vivid green caught the departing rays of the sun now fast sinking behind the hills. Bushy palms stood up at intervals among other shrubs; we noticed several burned, with fresh green leaves standing out of the blackened trunk, and were told that natives fire them for amusement. Now and then we came on the primitive huts already mentioned; the ground is very fertile round these little homes, and is for the most part covered with crops of some kind of figs, peaches or prickly pear from the fruit of which they make good jam known as "dulce". There is a most uncomfortable habit with these people; they can stop a path [p. 132] whenever they wish by putting an impenetrable hedge of thorny branches across it, and nearly everything has thorns. The unfortunate traveller has to find another way round; this happened more than once to us. On one occasion we had to get down a very steep bank into the stream, where we found the way blocked by a fallen tree; then we had to get up a bank so steep that I thought for a moment that my horse would fall back on me, but he got up safely though I had to lie flat on his neck to prevent being brushed off by the overhanging branches. A. preferred to get off and drag his horse up as indeed was safer and wiser. The country was wonderfully beautiful, and then the various, to us strange, forms of life were so interesting and the manner of living in that as yet little known region proved so instructive and entertaining.

When we arrived at the rancho we found that the rest of the party had already made the acquaintance of the family who in our country would be well-to-do-farmers. They allowed us to invade them and were most kind and hospitable. Our peon and the guide got ready the supper while another peon who had come up played the guitar and sang to us from a corner of the verandah. After supper we went into their only room in which we found a sewing machine. The German with us put it in order for the young women who were thereby made very happy. The guitar came in too, and Mr. Lewis and I danced a Highland fling to the immense amusement and delight of the good people; then Mr. Dalziel and I danced a polka until we could stand up no longer. After this display our guide and one [p. 133] of the young women danced some native dances for our benefit. The family consisted of the father and mother, two sons and several daughters, one of whom was married, but after she had been married two months the husband killed another man in a quarrel and had to fly. We saw the little baby just

twenty days old, such a queer struggling little creature rolled up in tightly fitting clothes so that only its funny little face could be seen. It was intensely interesting to see how the well-to-do farmers live. The houses were built of mud, "adobe", sundried with a thatched roof of grass over cane rafters, the walls inside were whitewashed and in this instance there were a few religious pictures, a small looking-glass, a lamp beside the sewing machine, a bed, two boxes of clothes, and a few chairs with a table completed the furniture. In another shed we found more beds and the rafters were hung with all kinds of garments and bedding. The kitchen was separate and built of cane; inside hung the dried beef on which they live.

We waited until nearly 10 o'clock for the moon to rise, but clouds came up, so we started without the moon. There was light enough to see the track, this time a good road for that part of the world, used by carts which have to be very strong to survive the many jolts and bumps. Soon after we started we saw flashes of summer lightning and as we reached more open country there was a most brilliant display. It was magnificent, ribbons of fire darting out of the clouds, illuminating the scene, a strangely wild and picturesque one at any time and particularly in this [p. 134] light showing our little party as close to each other as they could get, so as not to lose the way. The guitar tinkling ahead, sometimes the guide would sing, sometimes one or of our party would break into Welsh song.

So the visit to the mountains came to an end and we went on to Rosario in response to an invitation from the engineers who were making a new dock on the river. During the excavations they had dug up some large bones; these proved to be interesting whale bones which my husband accepted for the British Museum. The river at Rosario was full of islands thickly covered with vegetation which at that time were the secure haunts of bandits.

We were shown over a grain elevator and were so fortunate as to see a mirage on the pampa, a most interesting sign, the distant town was reflected above a band of quivering hot air. We also met a swarm of locusts which lay on the ground everywhere, they flew up in the face as we walked, smelt horribly and covered even the rails, so that when the train passed over them the oiliness resulting prevented the wheels from gripping the rail and we were very late reaching Buenos Aires.

From Buenos Aires we went on to La Plata, a splendidly planned city with beautiful gardens and fine public buildings. Dr. Moreno received us most kindly and my husband was delighted with all that he saw of the great collection of fossil animals from Patagonia and from the Argentine formations. Dr. Moreno offered some newly arrived crocodile skulls to Arthur

for description [p. 135] and study, so there we settled down for the remainder of our available time. I was given a Spanish pamphlet to translate into English, which kept me busy. We saw a certain amount of social life too, for the staff did all they could to make the visit memorable, and friends were very kind. Arthur brought away a large piece of the dried skin of *Grypotherium*¹⁶⁷ the remarkable remains of which were found in a Patagonian cave, a gift from Dr. Moreno, the Director of the Museum, which he handed over to the British Museum on his arrival home.

The remains of *Grypotherium* have given rise to much discussion, for the bones, droppings and pieces of skin were found in a part of the cave apparently cut off by a wall from the rest of the cave¹⁶⁸. Flint tools and other remains of man including bones have been found in the floor of the cave. For what purpose was this great beast apparently kept in the cave by man? as suggested by the known relics – Was it kept for food, its flesh to be eaten by early man in that far distant and cold area, or was it a fetish to be worshipped as a survival from a distant past? – The skin is very thick and has embedded in it a large number of ossicles, almost a complete armour of bone, the hair is long, thick and coarse, it is now a faded yellow, but may have been dark in life.

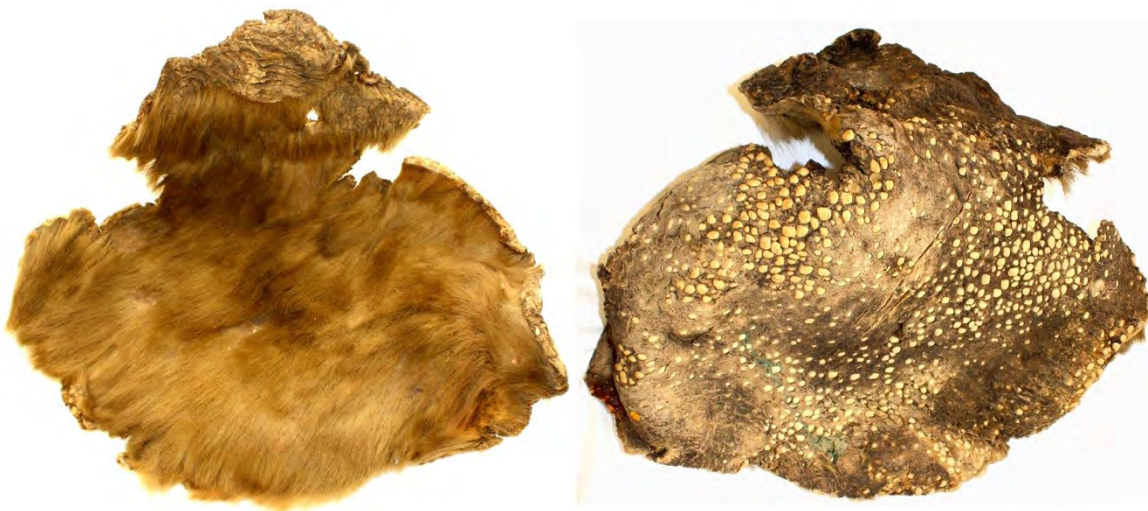


Fig. 11. *Mylodon darwini* skin brought to the Museum by Smith Woodward, topside on left, underside on right (NHMUK PV M 44754). (© The Trustees of the Natural History Museum, London)

¹⁶⁷ Now *Mylodon darwini* – see Figure 11.

¹⁶⁸ Also see Woodward, A.S., 1900, 'On some Remains of *Grypotherium* (*Neomylodon*) *listai* and associated Mammals from a Cavern near Consuelo Cove, Last Hope Inlet, Patagonia'. *Proceedings Zoological Society of London*, **69**, 1, 64–78.

[p. 137] **UNITED STATES**

The next journey of any length was to the United States where my husband already had made many contacts and warm friends during an earlier visit. It was a very different little old New York to that which now confronts a traveller; it really was little compared to the seemingly endless city of today. It was surrounded with well wooded hills where on our rambles we were warned not to go into any cave for fear that a mother bear with her babies might be there. The old overhead railway still straddled the streets, it was said the dwellers on these streets automatically stopped their conversation every three minutes to allow for the din of the passing train. I see from a letter I remarked on the height of the buildings, twenty floors. What would that look like today beside the soaring towers which are New York. This was in 1900 when Central Park was still the best residential district. Our friends were all most kind and we saw a great deal of the city including a visit to China Town where we drank tea in Chinese fashion. I still possess the bowl used as a tea pot with its small brass stand. We saw the various museums and parks besides the special interests of my husband's study. We went on to Philadelphia where I had the thrill of seeing a real old Quaker lady dressed in grey silk. Then on to Washington, still a quiet small city where we again met great [p. 138] kindness and had most pleasant meetings with many friends who welcomed me as my father's daughter as well as their friend's wife. These personal contacts were always most valuable for the good will and understandings which they forwarded.

The ultimate reason for this journey was to inspect two collections of fossils offered to the British Museum and if suitable to arrange for the purchase of one of them. The one was at Lawrence in the state of Kansas, and the other at Berea in Ohio. This gave us an opportunity to see other sides of American life than that of the great Universities and large cities, that of the sparsely inhabited plains and the smaller towns. The level dreariness and extent of the great plains was marked, the hawk sitting on a post beside the railroad looked exactly the same and the surroundings also looked the same as that seen the night before from the car window. In the homes we found domestic life very much simplified, and very much more haphazard than any we had seen elsewhere. The great cancer specialist who entertained us at one town had sons who earned a living as labourers, though they also studied to get a college education; at the same time his wife was no more than an overworked home help, modern mechanical devices had not as yet arrived to lessen the work. From the Mid-West we returned by way of Chicago which with its beautiful driveways and parks and handsome buildings quite charmed

us. The abattoirs and the gangster exploits which figured so prominently in the news [p. 139] papers of the time were far away from the city that we saw. The great Field Columbian Museum has treasures of many kinds to satisfy pilgrims. Then on to Niagara where we spent two days wandering beside the waters and enjoying the spectacle of the huge mass of falling water, both under cloud which emphasised its terror and in brilliant sunshine when the rainbows over the falls made an enchantment.

It was on this journey that my husband made the acquaintance of the dealer Mr. Sternberg¹⁶⁹ through whom so many valuable specimens came to the British Museum. At this meeting my husband was able to arrange for the purchase of the wings of the very large pterodactyl, *Pteranodon*¹⁷⁰, a veritable flying dragon of the air, with a wing span of 18ft. The bones were hollow as are the bones of birds.

In 1904 we again visited the United States, this time to take part in a scientific congress to be held at the World's Fair at St. Louis.¹⁷¹ Again we met many friends whom we had seen on previous visits or had the pleasure of welcoming in our own home. Several of them came specially to meet us at cities where we were making a brief stay, and in this way we also saw several of the small universities and their museums.

The great Fair at St. Louis was a tremendous and overwhelming affair. The Philippine exhibit was about the best thing in the show from our point of view. Every possible feature was illustrated, from a raised map model on a gigantic scale and with earthquake recording instruments, to clothes and food. The [p. 140] village encampments of the various tribes were very interesting and complete in every detail. Some of the people were previously unknown even to the authorities in Manila; there were several hundred natives of various tribes, the pygmies especially interesting, and it really was an exhibition within the Exhibition. Of course there was adequate representation of many races and even tribes from far countries including the African pygmies. The red man of the United States could be seen as far as possible at his most imposing with all his crafts and displays.

¹⁶⁹ Charles Hazelius Sternberg (1850-1943). "A well-known collector of Kansas Chalk fossils, from whom were purchased specimens of *Platecarpus*, *Clidastes*, *Tylosaurus*, and Fishes in 1900." (*The History of the Collections contained in the Natural History Departments of the British Museum*, Vol. I, 1904).

¹⁷⁰ Specimen number NHMUK PV R2945.

¹⁷¹ The Louisiana Purchase Exposition was held to celebrate the 100th anniversary of the 1803 Louisiana Purchase, when more than 27% of the present day USA (excluding Alaska) was purchased from France.

At the Congress there were over ninety foreign speakers¹⁷² and at least that number of American ones, so there was much to hear as well as to see, but the buildings were so far apart that it was difficult to get about and to meet as there was no general meeting place. The noise everywhere was astounding, everything that could make noise did so loudly, the man advertising sideshows used megaphones six feet long, and American bands had a generous big drum. Of course there was a great deal to see in very great variety.

On the way to St. Louis we stopped off at Pittsburgh where Dr. Holland¹⁷³ had mounted a complete skeleton of the gigantic dinosaur *Diplodocus*, a really wonderful example of collecting and preparation with even the small paired bones under the bones of [the] tail which may have aided movement. King Edward VII who, when Prince of Wales was an elected Trustee of the British Museum, took [p. 141] a really active interest in the collections. When he learned that Dr. Holland was making a cast of the great dinosaur, he asked that a complete copy of the skeleton might come to the British Museum. As soon as the authorities learned that Dr. Woodward would visit Pittsburgh he was asked to inspect the cast and to discuss the mounting with Dr. Holland. Dr. Holland had mounted the bones in the position that the animal would assume if walking on the floor of a lake or large river, with the long neck held upright for the head to be out of the water. This arrangement made the exhibit very high and the bones of the head and neck were out of sight. My husband did not think this was a normal position, though doubtless a possible one from time to time; he thought the usual attitude of a lizard more likely to be correct. There were long and strong arguments, but the specimen in Cromwell Road is so mounted, and all the bones can be easily seen and studied¹⁷⁴.

An International Geological Congress was held in Washington in 1933, and we were invited to join it. The Penrose fund¹⁷⁵ paid a large part of the expenses and as special guests we were also given £200, so that the cost of the three months journey was provided for all intents and purposes. There were about 45 guests from various parts of the world, many were old and valued friends with whom it was a great pleasure to travel in such unusual circumstances. A

¹⁷² ASW spoke on "The Relations of Paleontology to Other Branches of Science". See his bibliography for 1906 (Smith *et al.* 2015).

¹⁷³ Dr William Jacob Holland (1848-1932), Director of the Carnegie Museum, Pittsburgh. See the chapter on Lady Smith Woodward's Tablecloth (Milner 2015).

¹⁷⁴ In January 2015 the NHM announced that as *Diplodocus* is 'just a cast' it no longer represents the work of the Museum and it is to be replaced in the Central Hall (now known as Hintze Hall) by a skeleton of a blue whale.

¹⁷⁵ R. A. F. Penrose Jr. made generous bequests to both the Geological Society of America and the American Philosophical Society but no record can be found of a payment to Smith Woodward.

large party went down from New York to Washington in the first air-conditioned train, an exciting [p. 142] experience, but the station at Washington felt like the fiery furnace.

One of the local excursions was to Mount Vernon¹⁷⁶, greatly improved and better cared for than on an earlier visit. Our party was given special privileges and the honour of a motor police escort which rushed us through the red lights as though we were an ambulance or a fire-engine. It was a quite thrilling experience; more amusing was that when getting into a taxi one evening with some fellow guests, a sweet tenor voice began to warble. I thought it was the plump Pole who had just sat down, but no, it was the radio, not at that time found in our taxis.

A wonderful long excursion had been planned for the special guests of the Congress when we joined the private train which carried us out to California and back by way of Chicago, seeing all the most wonderful natural sights of a country which is rich in overwhelming sights. Bigger mountains, larger rivers, brighter flowers, deeper waterfalls, more desolate deserts, more vividly coloured landscapes than elsewhere. Our private train was tacked on to the scheduled trains whenever possible, it consisted of three cars one of which was specially built for Professor Field¹⁷⁷ to take his students out on geological excursions; it could be turned into a lecture room. The married couples each had a cabin fitted with toilets, and there were shower baths. There was also in the baggage wagon ample provision for storing specimens collected on excursions; the crew were Filipinos and were very efficient.

[p. 143] The party all travelled together as far as St. Louis where we joined a small party of anthropologists which went by car to Clovis in New Mexico where we had a sight of prairie life, in the very mean huts of the Squatters with their herds amid the sparse vegetation. We were taken to see some dried up lakes, formerly part of a large river; many elephants, bison and camel had been bogged there, and their remains were numerous. Even more interesting were the indications of human remains in the hearths and worked flints very like those known as Solutrean in Europe. This culture shows a high degree of skill in working flint. We had the thrill of helping to uncover a fireplace. The party was at all times accompanied by numerous American scientists and specialists who met us at points of particular interest. Everything was done for our comfort and pleasure at the stopping off places, and as far as possible on the

¹⁷⁶ George Washington's home in Virginia.

¹⁷⁷ Professor James A. Field of Chicago University – see the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

longer train journeys we passed through the more beautiful country by day and the less interesting at night time.

On the Clovis side trip one of the younger Americans was very disturbed as his cotton trousers had become very dirty in the excavations, and he was expecting to meet his best girl. I told him that if he could borrow another pair I would wash his dirty ones for him. We were able to get the necessary soap and had great fun with the laundry. He met the young lady with calm assurance; they were married soon afterwards.

We were just caught by the edge of a tornado which did a [p. 144] good deal of damage further south; the sky became a peculiar steely blue, the lightning was terrifying with a high wind and torrents of rain. When we got back to Clovis there was so much water running in the streets that we got into the hotel with difficulty. We now rejoined the main party and we all went on to Flagstaff in Arizona where we were at a height of 7500 feet having passed up and through juniper forests to magnificent pines. There is at Flagstaff a very good museum of the local Indian cultures with very charming, helpful people in charge. We drove round the country to see the geology and natural features of the region. Our drivers looked like the chorus of the "Maid of the Mountains"¹⁷⁸, wearing gaily coloured shirts, brightly contrasting ties passed through a silver ring, bright brown breeches and long brown riding boots, with light coloured "ten gallon" hats. We drove over the remains of old volcanoes where the ash has remained unconsolidated and the lavas come through from time to time, making rather rough going, the volcanic cones are now partly covered with forest. Then we came to an astonishing sight, a canyon as deep as that of Niagara where the river falls in a series of steps, but it is a river of mud the colour of the rock over which it falls, and the spray is mud too. The river is known as the Little Colorado. We drove on and on across almost desert country always in sight of the towering San Francisco peaks where in Indian legend the gods retire every six months away from their people with whom they have been living. Thus we came at sunset [p. 145] to Meteor Crater¹⁷⁹, an immense hole in the ground, supposed to have been made ages ago by a very large meteor; the hole is one mile across and 600 feet deep, much meteoric iron has been found in the neighbourhood.

We had a picnic supper at this wonderful and beautiful place watching the brilliant sunset, and then with a glorious full moon flooding the crater we drove back to Flagstaff. Again

¹⁷⁸ An early 20th century English romantic musical play.

¹⁷⁹ Located east of Flagstaff, Arizona.

the next day we went on through forests and across old lava flows until we came to Cameron, a trading post where the Indians bring their produce to barter for what they need. A rock basin had been made into a picturesque swimming pool. At night a large fire was lit on the dancing ground around which we sat to watch the Hopi men and maidens perform some of their social dances. Their religious dances are a very serious affair. The most beautiful was an eagle dance by two almost naked young men with eagle feathers formed into wings on their arms, and also an elaborate head-dress. There was a very acrobatic hoop dance also a buffalo dance where the men had head-dresses to represent buffaloes and sashes arranged to represent tails. The full moon shone out of clouds and the flames from the fire flickered on the watchers; it was a weird and picturesque sight.

The next day we were in the painted desert of Arizona where the colours are almost dazzling in their brightness, there is very little vegetation, but the rocks are red or yellow of all shades and the shadows all shades of blue and mauve, thus we came to the [p. 146] petrified forest where entire trees lie on the ground turned to agate. We also saw dinosaur footprints on the rocks. Then driving for many hours we came to an awe-inspiring sight which we saw in sunset light – the Grand Canyon.

¹⁸⁰“Here we are where I had never thought to be, though I had longed to see all these wonders ever since as a child of about ten years old I first saw pictures of this incredible region, as also of the geysers in Yellowstone Park, which we were to see later. This scene is almost too much like the pictures which look exaggerated to our eyes used to quiet tones. Here the clear air and brilliant sun show up the incredible colours of the rocks enhancing the blue shadows of mid-day, and the purple shadows of evening. I am sitting on a log cut from a huge tree, right on the edge of this terrible crack in the earth's crust, which is one mile deep and thirteen miles across with an immense river in the bottom, hardly visible at this distance. It is completely overwhelming and literally takes away the breath, one can well believe that the early explorers thought that they had reached hell's mouth. The cliffs are torn into towering pinnacles and narrow ledges with enormous detritus fans pouring down everywhere. The river is quite brown flowing frequently at twenty miles an hour, and sometimes so quiet that the cliffs are mirrored in it, but always twisting and turning. It is said that the waves at the rapids are 15-20 feet high.

¹⁸⁰ This was clearly such an overwhelming experience, Maud has simply included the thoughts she noted at the time – though whether that was in a letter or a diary entry is not known.

The colours are incredible, the red is very strong, there is little green, only grey, yellow and [p. 147] brown with the nearly invisible river at the bottom.”

We spent two days in this wonderland which made a great impression before going on to Los Angeles where we saw the pitch lake¹⁸¹ which untold ages ago trapped prehistoric animals just as it does those of today. Then by the great forests of great trees, beside the soaring mountains until we came to the Yellowstone Park with its geysers of hot water, the great trees and the perfectly tame and confident bears. The wardens took possession of the whole party and showed us everything we wished to see. These wardens are very fine and picked men with a good knowledge of the natural phenomena of the Park; each was armed with a gun in case any of the wild animals became dangerous; the bears are sometimes troublesome, they will raid an unattended car for jam or fruit unless it is carefully locked.

So over the plains to Chicago where we were enchanted with the new Aquarium, a lovely white marble building in a severe Greek style and most suitable for its purpose. We both were happy to see so many strange creatures alive which we had only known from books or museum specimens. I remembered when a small girl seeing my mother make a large coloured diagram of the Archer fish¹⁸² for one of my father's lectures. Here it was alive, and I had the thrill of seeing the creature squirt its drop [of] water at a resting insect. I was told that it could send a drop of water 11 feet to hit an insect resting on a leaf.

At Chicago we said goodbye to our hosts who had planned and [p. 148] carried out so remarkable a journey, it could not have been better in any way. We also said goodbye to many good companions before starting out on a series of private visits to friends in the eastern states. We revisited many cities, Albany very much improved and altered, the railway station had become really beautiful, and the museum had several new and striking features in arrangements and display. Indeed each town we visited had much fresh and new to interest us. At one lunch party in a wealthy home a wonderful party had gathered to meet us, including the survivor of the first white party to go down the Grand Canyon and to navigate the dangerous river. It was all very thrilling and the talk so interesting that it was difficult to come away in time for the next engagement.

The final visit before sailing was to old friends at Bronxville. They had invited several friends to meet us, one of them suggested that as his house was larger than Dr Murphy's he

¹⁸¹ The famous La Brea tar pits, which trapped a rich assemblage of Pleistocene fauna.

¹⁸² A fish of the genus *Toxotes* that spits a jet of water to 'shoot down' prey.

should give the party; and so it was to his house that we went to dinner. The head chauffeur with a 16 cylinder Cardillac was sent to bring us the 26 miles to Kisco¹⁸³. The house stood in a lovely park with everything most beautifully cared for. There were about 40 guests for dinner all in morning dress as they knew we had not evening dress with us on the special excursion. We sat at three round tables, the only decoration an immense bowl of roses on very long stems. The feast was perfect and the wine, the first we had seen on the whole journey, flowed freely. After the [p. 149] banquet we went to a splendid music room where about 60 other guests came in to a concert given by two opera singers, it was such an affair as I had read about, but never expected to take part in. So the almost unbelievable journey came to an end with a fairy-tale like entertainment.

[p. 150] **SPAIN**

After the months spent at Pikermi near Athens collecting the bones of fossil animals which had roamed the then existing lands, more months were spent in arranging for the exhibition in the Museum galleries of the most notable specimens in the collection. In the course of his reading, Dr. Woodward learned that similar bones and remains had been found near a remote village in Northern Spain, the opposite end of the Mediterranean area from Greece. He was fired by a desire to see for himself if the facts were as stated, and after a good deal of planning we set out for Spain in the autumn of 1902.

The ancient city of Valencia was the most suitable starting point, for that part of the former kingdom of Aragon we intended to visit; it had an added attraction in a collection of fossils from the Argentine, belonging to the city. At the time when we first visited Valencia, it was little known to tourists and we were charmed with the age-old appearance of the streets and buildings. The Cathedral is very fine and the old Silk Exchange a beautiful Gothic building, its roof supported by elegant twisted columns; there is much fine carving also¹⁸⁴. We spent some happy hours exploring the winding, narrow streets, though we found little trace of the Moors who traded with the city during the middle ages. A few old thatched cottages remained, those of Christians bore a cross on the roof.

¹⁸³ Mount Kisco, Westchester County, New York.

¹⁸⁴ La Lonja de la Seda de Valencia, the Silk Exchange, is now listed as a UNESCO World Heritage Site.

[p. 151] My husband wished to see the collection of Argentine fossils belonging to the city¹⁸⁵ and applied to the British Consul who gave him a letter of recommendation. So armed we went to the Institute where we were kindly received, but were told that the collection was the property of the city and we must obtain permission from the Mayor to examine it. The Secretary however wrote a letter and sent the Porter with us to the Alcaidia (Town Hall) where we waited with the crowd of persons wanting to see the Mayor. Soon we were passed on by bowing uniformed officials through ante-rooms to the Mayor's presence, where we were seated on gorgeous chairs at the end of the large room while our errand was explained, when we were asked up to speak with the worthy who sat on a throne surmounted with the Arms of Valencia. He was extremely polite, but said we could not see the collection without the presence of the Professor of Natural History at the University, as it was in store. Armed with yet another letter we set off to the University; the Professor was not there, we therefore went about one and a half miles to his house, only to find that he was away, but was returning that evening. We arranged for a meeting and retired. During the evening his son came to our hotel with a message to the effect that the Professor would call on us next morning. A most charming man came and took us to the store on the outskirts of the city where my husband was delighted with all that he saw, and found the collection well worth the trouble which had had to be overcome to view it.

[p. 152] Professor Bosca¹⁸⁶ came to the station to see us off on our journey bringing me a lovely bouquet of jasmine and heliotrope. All the negotiations were conducted in Spanish for at that time very few Spaniards spoke any other language. Dr. Woodward's Spanish improved rapidly with so much exercise.

Before leaving home my husband had written to the Consul at Valencia for advice about reaching Conclud, and also to ask for an interpreter as we both distrusted our Spanish. He found for us an Englishman in business who had lived all his life in Valencia, and was willing to travel with us for the sake of a free holiday. The Consul also made the necessary arrangements for our journey to such a remote part of the country.

¹⁸⁵ This is undoubtedly the Rodrigo Botet collection of Pleistocene mammals currently housed in the *Museo Municipal de Ciencias Naturales de Valencia*.

¹⁸⁶ Eduard Boscà i Casanoves (1843-1924). A physician and naturalist, he was appointed chief gardener at the Botanical Garden in Valencia in 1883 and professor of Natural History at the University of Valencia in 1892.

We went to Teruel¹⁸⁷ by a railway which had only been running a few months, and was still a novelty and excitement to the country people, as well as to the train staff, for the driver got off his engine at every station and went away for a coffee with his friends, exchanging gossip and news. The journey was resumed when he was ready. Since it was a Sunday, the people who thronged the small stations all wore gala dress with the cleanest of smocks and the brightest of handkerchiefs, a great opportunity for us to see the country dress at its best. The little towns are perched high on the mountain sides and frequently retain their ancient fortifications. Teruel has two fine Moorish towers of old brick overlaid with brightly coloured tiles, and with the roadway running through them.

On arrival my husband went off with the interpreter to interview the local government engineer, and to arrange for permission to dig [p. 153] and to engage labour. The engineer was away but a deputy in charge of forests went with us along the straight military road shaded by trees on either side, and presently down the unmade road to the village of Concud¹⁸⁸ and the outcrop of bone-bearing rock¹⁸⁹. We travelled in a simple kind of covered tilt cart, the horse decorated with many bells. Arrived in Concud we made enquiry for an inn, but only found a small shop where we opened up our lunch basket and spread our meal, forming a show for the chief inhabitants, who put on their best clothes and came to look at us, very politely of course while drinking coffee. The men are a fine hardy race of mountaineers, the country is barren and covered by snow for many months; it is part of the old kingdom of Aragon, and the people have a distinctive appearance and type, the country dress is still worn except that trousers are taking the place of knee-breeches. Eventually a man produced a pick and took us to the section which had been worked on the surface. We spent some time walking over very rough ground and arranged to return next morning, leaving instructions for certain top material to be removed. We decided to stay in the fairly comfortable hotel in Teruel, and to go out to Concud daily. The next morning on arriving at the section we found that not a stone had been moved and no work had been done. The village Council led by the Alcalde¹⁹⁰ met us with completely shut down faces. They had held a Council Meeting at 4 o'clock in the morning, for the land where we proposed to dig was communal land. Their argument was that if the strangers had

¹⁸⁷ About 140km north-west of Valencia.

¹⁸⁸ About 5km north-west of Teruel.

¹⁸⁹ See Smith Woodward's 1903 paper: "III. – The Lower Pliocene Bone-Bed of Concud, Province of Teruel, Spain", *Geological Magazine*, **10**, 5, 203-207.

¹⁹⁰ The chief administrative and judicial officer or the mayor of a town in a Spanish-speaking country or region [www.merriam-webster.com/dictionary].

spent so much and come so far, what they expected to find must be valuable, and the village [p. 154] ought to receive a fair share of the profit from the communal property. A logical argument. It took a long time to explain and to convince them that what we expected to find had no commercial value; any value that it might eventually have could only come from study and work by knowledgeable students, and the Senor Inglese was one of the best of these people. At last the faces unfroze, smiles came and it was agreed that we should work on the section as long as we pleased.

Picks and spades were soon produced and Mariano, the Alcalde, came every day to see that our workers were satisfactory, sometimes accompanied by a little daughter. We soon obtained evidence that the animals represented by their bones were practically the same as those found at Pikermi. When we had gathered enough fossils for our purpose we packed them up to be sent to the Natural History Museum in London¹⁹¹, to which my husband presented them, and said goodbye to those who had become our friends. Dr. Woodward presented to the Alcalde a sum of money, enough to buy a chair of ceremony for the Mayor of the village, and I slipped a chain bearing a fan over the head of the little daughter, which delighted the young lady, for a fan is an essential for every Spanish woman. Everyone was satisfied.

We returned to Valencia and then went South through Gandia to Alcoy in Alicante where fossil bones had been found in Tertiary lignite. On enquiry we found that the lignite was worked in deep [p. 155] shafts underground, and on talking with the miners we could get no information about fossils so that geologically this expedition was fruitless and we came home.

We had become enchanted with what we had seen of Spain and the Spaniards with their native country. The scenery as well as the historical remains was most inviting and interesting so that we hoped for another opportunity to travel in Spain as soon as could be contrived.

[p. 156] **SPAIN II**

In 1905 there was a total eclipse of the sun which would be seen in Northern Spain; the American astronomers were to be stationed at Daroca¹⁹² on the maximum totality line. It seemed to us a suitable time to revisit our friends and hunting ground at Conclud in the same

¹⁹¹ Close on 120 specimens were added to the collection (registration numbers NHMUK PV M8252-M8313), mostly *Hipparion* (an extinct horse) but including rhinoceros and gazelle.

¹⁹² Daroca is about midway between Saragossa and Teruel in north-east Spain.

neighbourhood, to see if we could get any more bones, and also to visit the lithographic stone quarries and other localities where fossils of different kinds had been found. We therefore wrote to Mr. Reis in Valencia who had acted as interpreter for us on a previous journey. This time we planned to go as far as Andorra and much of the travelling would be off the beaten track. Our experiences with trying to speak Spanish resulted in the discovery that however strong the local dialect or language variation, every Spaniard aimed to speak Castilian, the official Spanish language, as well as his own local usage. Mr. Reis met us in Barcelona where we visited the Academy of Sciences, the University and the Cathedral, a rather ornate building. We then took the train passing through Tarragona to Manresa, an important manufacturing town perched high on a hill as are so many Spanish towns. In ancient times it was a Roman city, and possesses a long and high Roman bridge; now cotton spinning and weaving are its chief industries. On the way up from Barcelona to Manresa we passed the Montserrat which looks exactly like a stage mountain cut from cardboard, all jagged points, much as a child might draw a mountain; it appeared very wonderful rising out of cloud; there [p. 157] is a well-known monastery near one of the summits which is a place of pilgrimage from all over the Catholic world.

We found a few *nummulites*¹⁹³ in a road-side rock exposure, and next morning travelled on to Tàrraga¹⁹⁴ where we allowed the diligence¹⁹⁵ a good start so that the road dust should have a chance to settle before we set out in a tartana for Artesa de Segre¹⁹⁶. We drove for four hours and at Agramunt¹⁹⁷ had to make a detour as the bridge on the main road had broken down thirty years earlier and still awaited repair, a typical instance of Spanish procrastination, *mañana* as usual. A tartana is a country cart, very light in construction with two high wheels, the benches are lengthwise, the driver sitting at the right hand side over the horse, the whole is covered with an awning of sailcloth presenting very much the appearance of the old-fashioned brewer's dray in miniature, especially as there are curtains back and front to be looped back at will.

At Artesa we began to "see life". The Inn was good and clean on the main street, and over the stables as indeed is usual anywhere in Spain, nowhere except in the larger cities do

¹⁹³ Shells of the fossil and present-day marine protozoan *Nummulites*, a type of foraminiferan.

¹⁹⁴ Tàrraga is 60 km west of Manresa.

¹⁹⁵ A public stagecoach.

¹⁹⁶ Artesa de Segre is about 30km north of Tàrraga.

¹⁹⁷ Agramunt is about 15km north of Tàrraga.

you enter the hotel on the ground floor. The food was varied and plentiful if somewhat curious to our taste, and the company was not exclusive. We were much entertained by a character who sat at the head of the table, spoke French and understood German. He apologised profusely to me for dining with his shirt unfastened at the throat, indeed he fastened it for a few minutes, but it was soon open to his waist again, the rest of the company of course dined in their shirt sleeves without considering it strange.

[p. 158] Next morning we went on again by tartana for about three hours to Vilanova-de-Maya¹⁹⁸ in Cataluña; we visited the Secretary to the Alcalde a most agreeable individual who recommended to us lodgings and who generally looked after our interests. He introduced us to his family and indeed took us to his bosom in a frank and charming manner. These Catalans are less polished than other Spaniards, but are honest, natural and independent in manner as well as democratic. They treated us very well and we liked them. Like other mountain people, they are active and rather short in stature with keen eyes and rather square jaws. We were surrounded by mountains rising up to rugged bare crags though the lower slopes bore cultivation terraces on every available ledge.

The house was the best inn in the little town and very simple; there was one room downstairs, the dining room where we took our meals in company with the peasants who came in; it gave on to a tiny terrace overlooking the fertile and cultivated valley which is overhung by towering red crags; adjoining was the kitchen with a wood fire on the hearth, the food is cooked in earthenware pots set amid the glowing ashes. Above the dining room was our bedroom. I say "our" advisedly for we shared it with Mr. Reis. This may seem a rather unusual arrangement, but it was really almost modest. The room contained a small table with a basin about the size of a mixing bowl. Fortunately I had towels with me. Half a dozen chairs, two alcoves with curtains each containing a bed stuffed with esparto grass, rather smelly, but all very clean. We dressed one at a time [p. 159] with a good deal of amusement. I need not say that the people themselves understand nothing of the refinements of civilisation. One knife was provided for the three of us, so we found the tea basket quite useful. Everything was quite clean with few fleas in spite of the fowls and donkeys in the basement.

Yesterday we had a glorious day; roused at 4.30 we arrived back at 8 pm. After coffee and dry bread we set out with two men leaving Mr. Reis behind in the village to enjoy himself

¹⁹⁸ Vilanova de Meià is about 12km N of Artesa de Segre. The lithographic limestone of the Montsec range is famous for its early Cretaceous flora and fauna.

and carry on negotiations. He had lived all his life on low and level ground and found these precipices and overhanging cliffs unpleasant. Our road lay over the mountains for twelve miles; we were mounted on large Spanish donkeys, mine was gracious and sure-footed, but Arthur's was not so good and on the return journey it went down on its knees when he slid gracefully over its head and refused to mount again. The track gave most wonderful views, at one time eight ranges of mountains one behind the other were visible, and when we were over the summit a very distant sight of the Pyrenees was disclosed beyond an immediate foreground of a deep ravine with a meandering river at the bottom, the rocks mostly red or blue-grey making a fine contrast with the bright green of the vegetation and intense blue of the sky. The path led by turns and twists up the mountain side and among rocks, it was all very beautiful and the mountain air most invigorating with its fresh coolness. We lunched in a quarry on hard-boiled eggs, dry bread and fine green gages with a good appetite. A Frenchman had been to the quarry a few days [p. 160] earlier and had taken all the good specimens, so we only got a few scraps of fishes, but found near the road a large quantity of corals including growth stages. We have now made arrangements which we hope will produce fossil fishes if not frogs; the Frenchman had obtained a fossil frog.

We were both a little tired after 24 miles of donkey riding, still the next day we had 12 miles more up a most wonderful ravine with enormous precipices about 1,000 ft. high; we saw no less than seven eagles at one time. The fossils that day were *Hippurites*¹⁹⁹ and more corals, not as interesting as fishes.

I rode astride over the panniers exciting general interest with my long sheepskin boots and a hat, for none of the females here wear hats, probably do not possess them, only men seem to wear them. The flowers were most beautiful and varied, many strange to our eyes, the butterflies too were very numerous and lovely. We very much enjoyed these two days of absolute freedom, and the next day started early on the long drive to Tarega, 40 miles away, where we expected to get a train for Saragossa on the way to Teruel to see the eclipse. We spent a day in Saragossa to see two splendid churches. Arthur visited the Jesuits and chatted with one who had ventured to London. I went to the shrine of the Madonna del Pilar where I saw the votive offerings, enough jewellery to stock a small shop from wedding rings to costly jewels, fans, orders, trinkets of all sorts, a striking instance of how far emotion will carry the

¹⁹⁹ *Hippurites* is an extinct genus of bivalve mollusc from the Late Cretaceous.

devout pilgrim. We liked Saragossa, the Ebro creates a garden [p. 161] along its course through a veritable desert. The town too is picturesque with its many old fortified houses with overhanging eaves having a loggia immediately below them, and just as few windows as need be, and those heavily barred, any other windows opening on to a courtyard frequently decorated with carvings and frescoes and perhaps a balcony. The streets in which these houses stand are very narrow which must have made fighting a hand-to-hand affair. Saragossa was well-known for its numerous street fights and rows. We went on to Calatayud, an old Moorish town with an enormous castle dominating it; there are rock dwellings here still in use, but we did not have time to visit them. Then we boarded the train for Teruel which consisted of some baggage wagons and one third class coach, again we afforded entertainment to the travelling peasants and had ample opportunity to study the architecture of railway stations. Arrived at Teruel all seemed unchanged except the wife of our host at the inn, she had doubled in size. We had a warm welcome. At Conclud the ex-mayor, Mariano, was in bed with a cold. He got up immediately he heard that we had arrived to welcome us and spent the day prospecting with us. Mr. Reis went back to Valencia, and we went out each day to Conclud on donkeys, but did not find anything of much value which was disappointing. Mariano, no longer Alcalde, became our headman and worked like a Trojan. We inspected the red velvet Mayoral chair, and the little fan which was worn out was replaced.

We had an excellent view of the eclipse²⁰⁰ though astronomers in many places near saw little owing to cloud which obscured the early stages. However, the thin cloud where we were enabled us to [p. 162] watch the shadow creeping slowly over the sun's disc, and at totality the view was quite clear. We saw the black ball with its flaming border against the darkened sky where the brighter stars shone as at night. It was a striking sight; by a curious effect of moving clouds the sun appeared to be falling through the sky and the corona gave it an appearance of revolving, so that it looked like a turning black ball. The wind rustled, the landscape became dim with a sunset glow on the horizon, the whole aspect was weird and unusual. The peasants were much excited and uttered varied religious expressions especially when the pencil of light shot from under the shadowed ball, indeed an emotional moment. When the light actually vanished they had seemed overcome by awe. It was a very remarkable sight which alone made the journey worthwhile. We had 3½ minutes totality, the maximum.

²⁰⁰ August 30th 1905.

We returned to Valencia to visit Prof. Bosca in order to see the collection of Argentine fossils again on which he had been working, it was nearly ready for exhibition. One day we went out to Sagunto²⁰¹, a city with a long history. It was Iberian in origin but conquered by the Romans who built a theatre which is in an excellent state of preservation. The tiers of seats remain, and most of the galleries and passages are perfect, it had a most lovely prospect to the sea; the very large castle is of much later date.

We saw something of the vintage too, and a very messy business the whole affair seemed to be from the gathering of the grapes to the turning out of the refuse. Of course we only saw the making of the rough wine used locally, doubtless things are differently [p. 163] conducted in large establishments where less primitive methods are used. I cannot help thinking that poets and artists have seen what they wished to see in a vintage and ignored much else. Sagunto also has an old aqueduct underground, reached by a steep flight of steps, it is opened only at stated times daily, when the women wait in long lines for their turn to draw drinking water for their households. Every district has its own particular pattern of water jug made of porous earthenware with some distinctive decoration, a large opening by which to put the water in and a very small one to pour it out. The people literally pour it down their throats, it comes out of the little spout in a steady stream and is swallowed as it comes, the jug being held usually at arm's length above the head. It is a very tricky business and it is difficult to drink in this way for anyone unaccustomed to such economical ways. In Cataluña the wine decanters on the table are all made with a spout, and no glasses are used. The decanter is held in the air by the neck and the wine poured down the throat in a steady trickle; they also drink from the skin wine bags in the same way, steadying the flabby bag on the extended arm, with the wine coming from a tiny tube in the plug or cord.

And so through Barcelona home again.

[p. 164] **SPAIN III**

Although we had had two happy and interesting journeys in north eastern Spain, we had not visited Madrid which seemed a large omission and a blank in our experiences.

In 1908 the opportunity came to go again to Spain and to explore localities where fossils had been reported in the western section of the country. It looked easier on the map to go to

²⁰¹ About 20km north of Valencia.

Vigo on the north-west coast and from there by easy stages to Madrid. We went first to Leon²⁰², a famous and important city in olden times, but except for the cathedral we did not find much to interest us there. We had taken mileage tickets, a cheap method of travelling at the time, we missed the express and had a long and uncomfortable night journey in consequence. No Spaniard would travel in the middle of the day if he could avoid it, however we saw the grey dawn which comes here only less quickly than in the tropics, twilight hardly exists and day comes on you almost unawares. We travelled through splendid granite mountains, the country of Pizarro, to the plain of Castile which is flat and uninteresting. Many things are different here from that which may be found on the eastern side of the country. Here we drank coffee out of round bowls, in Valencia out of glasses similar to our old-fashioned tapering champagne glasses. [p. 165] Oxen were universal in the countryside as beasts of burden; around Vigo we saw the familiar long-horned red cattle, but around Leon black or very dark brown shorter horned animals were more frequent. The fowls were very long-legged and a trowsered variety which looked rather odd when tied to a doorpost to prevent it rambling too far.

A very curious sabot was worn around Leon with pegs in the sole, which are cut in one with the sole from a block of wood, they are to keep the wearer out of deep mud, somewhat after the style of the old patten²⁰³. The sabot was worn over the shoe and gave the wearer a clumsy gait and aspect. Huge shawls like plaids and velveteen clothes were general wear, topped by a wide black felt hat; the women wore short skirts of very thick dark cloth, kilted and often bound around the hem with bright red, white or sky-blue. They also wore hand knitted white stockings and strong shoes, a shawl crossed over the body and tied at the back, a large folded bright handkerchief tied over the head completed the usual attire, and they nearly all rode donkeys with gay and picturesque saddle-bags. The oxen here were yoked by their horns, but around Vigo a bent wooden collar was inserted in the yoke. The animals followed the driver who carried a goad on his shoulder.

From Leon we made an excursion to look for Carboniferous [p. 166] fossils but found the coal mines were too far away, quite unexpectedly we did get some graptolites and Silurian fossils. We had however a very pleasant day out in the open country by ourselves in very grand

²⁰² Vigo to León is about 390km.

²⁰³ Any of various types of footwear with raised soles used to elevate the foot above wet or muddy ground, especially wooden clogs.

scenery, the rocks most wonderfully weathered into pinnacles with knife-like edges and many hundreds of feet high. We got a most satisfying meal in a small village inn, and while it was prepared watched the village boys playing at a bull fight in front of the church, the only paved spot in the village; the bull had twisted paper horns, and sticks were used for swords. When the boys went off on their various errands, the girls came along and had a shop on the church steps with stones and flowers. It was all enchanting; unconscious and simple.

We had intended to drive across the country but found the plan too difficult, so went direct by train to Burgos which charmed us and made up for any disappointment with Leon. The Cathedral is quite wonderful, the variety, richness and harmony of the ornament is quite beyond expectation. The style resembles French gothic with plateresque²⁰⁴ ornament carried out with the greatest delicacy. The modern masons seem as clever as their forerunners and can carry undercutting to a remarkable degree and extent. We went to Mass as we usually do when possible and heard some very fine music, there is an excellent organ and evidently here the devil does not have [p. 167] all the gay tunes, for some was more like dance music. Spanish churches are differently arranged to those we know in our own land. The Coro²⁰⁵ is really an enclosed structure in the nave often rising to the height of the triforium²⁰⁶, it contains the stalls for the canons and choir, it usually has splendid carvings and is frequently of nearly black walnut wood. There is an old clock in the nave at Burgos with a figure which at the hour opens its mouth and grimaces horribly. All the bells in the city sound to be cracked. We found the churches everywhere well kept and clean.

The city has some splendid avenues of trees which make pleasant promenades but the outside of the houses gives no idea of what may be within, all look grey and deserted. The hill top is crowned by the shabby remains of a castle which saw gay doings when our Edward I married Eleanor of Castile and El Cid married his Ximena. There is an interesting doorway on the wall recalling Moorish influence. There are a few gypsies and very wild people they look.

We took a long drive to the Limestone hills, but found very few fossils.

The next city we visited was Valladolid, the University Museum had a few fossils but nothing of special interest. The Cathedral was solid and imposing, there were two other fine

²⁰⁴ Rich ornamentation in low relief suggesting silver-work, from Spanish *platero* – silversmith.

²⁰⁵ Spanish – choir.

²⁰⁶ A gallery or arcade above the arches of the nave, choir, and transepts of a church.

churches and a curious museum of ancient woodcarvings²⁰⁷. [p. 168] Then we came to Madrid where we visited the usual sights as well as the University, the Geological Survey and the Natural History Museum, where we saw the original skeleton of *Megatherium*²⁰⁸ sent to Spain from Argentina in the colonial days. As usual all the officials of the museums were most helpful and courteous, and it is certain that these personal contacts forward mutual understanding and the cause of science. I spent long hours in the Prado picture gallery looking at famous paintings until the eye wearied. We also saw the historical Armoury, the Botanic Gardens and Buen Retiro as well as the Museum of Antiquities with the very remarkable if not unique Visigoth remains²⁰⁹.

We took advantage of a Cook's excursion to visit the Escorial which remains surprising even after so much has been written about it, as a historical monument, a remarkable work of art and a museum. It seems to enshrine the national spirit.

We returned direct to Vigo on our way home, here Señor Duran took [us] on a visit to his estate where he had a mineral water bottling establishment which we inspected. It was most wonderfully clean and hygienic. Indeed hotels and small inns alike we found clean in spite of the absence of modern sanitation. Señor Duran took us in his motor car to Santiago de Compostella, the third most sacred place of pilgrimage in the Roman Catholic world. He had been a law student at the [p. 169] University and took pleasure in showing us the famous shrine and all the most notable features.

[p. 170] **SPAIN IV**

In September 1910 we went yet once again to Spain, this time in order to see the prehistoric drawings and paintings in the caves in the mountains above Santander. Again Vigo was our starting point, from there we went to our old hunting ground in the Montsech (See Fig. 12.) to try to obtain more fossils from the lithographic stone quarries; we travelled by way of Leon and Valladolid where bull fighters in the full glory of their traditional dress came to table in the hotel at midday; then by Saragossa to Lerida where we changed to the diligence for Artesa and thence by tartana to Vilanova de Maya, where we had a warm welcome from our

²⁰⁷ This may be the National Sculpture Museum, which has in its collections works of art in wood from the 13th to 18th centuries.

²⁰⁸ *Megatherium americanum* was discovered in the late 18th century near Buenos Aires in Argentina.

²⁰⁹ Parque del Buen Retiro was created originally for royalty in the 17th century and became a public park in the 1860s. The 'Museum of Antiquities' may be the National Archaeological Museum.

former host. We had several days of collecting and again had a most lovely and exciting ride up to the stone quarries which we enjoyed quite as much as that years before. We had to return to Artesa where we found a noisy fair in progress, but we saw many people in full and historic country dress, and thence by diligence to Tarrega. Here we visited Don Francisco Clua, a landowner, who had discovered fossil mammals in an Oligocene deposit in the neighbourhood. He showed his collection to my husband and allowed him to select specimens for purchase by the British Museum²¹⁰. He could not, however, realise that a woman might be so interested in her husband's work as to enjoy sharing his experience. I was therefore conducted to [p. 171] the saloon, and a little daughter brought in who sat at the piano and went through her repertoire, while I listened with as good a smile as I could produce. I tried to talk to the poor little victim, but she was too shy for my wayward Spanish, and the dark shadows beyond the door would not materialise.



Fig. 12. This photograph is from a set donated to the NHM. The provenance is unclear but it almost certainly comes from Margaret Hodgson, Smith Woodward's daughter. On the reverse is written 'Montsech 1905'. (© The Trustees of the Natural History Museum, London)

²¹⁰ Four items were registered (NHMUK PV M10487-M10490) in 1912, including "a greatly crushed skull" all items being identified as *Brachyodus cluai*, an extinct relative of the hippopotamus.

Next we went to Bilbao and so to Santander by a very lovely road running along the coast. There the medical officer of health for the city, Dr. Fresnado de la Calzado, met us and gave us an excellent reception; he was also President of the local Scientific Association. He went with us to Puente Viesgo where we met M. Alcalde del Rio, the artist who had been employed by the Prince of Monaco to copy the prehistoric drawings in the caves of the neighbourhood which had then been recently discovered. Dr. Fresnardo de la Calzado and M. Alcalde del Rio went with us to the then little known cave of Castillo²¹¹, it was a rough scramble to get there, but the cave was a fine large one with many stalactites, and very well worth all the efforts necessary to get there. The pictures on the walls were most striking, deer, horses, bulls and mammoths which were life-like and showed a remarkable degree of skill in depicting the animals as well as accurate observation. This cave was more fully explored several years later and the floor cleared of a large accumulation [p. 172] of debris; valuable remains and evidence of man's occupation were found which added much to our knowledge of that far away time when the pictures were made. At one moment when we were deep in the cave our lamps went out and we had to remain just where we were while a guide went off to get more lamps. Next day we went to the better known cave at Altamira²¹² the first one to be discovered and explored in that area. The pictures of the charging bulls in red ochre and black on the walls were almost unbelievable in their vigour and fidelity to detail. The elephants were definitely mammoths with the end of the trunk depicted as found in the animals of the Siberian tundra. The deer and horses too were most life-like and we were delighted with all that we saw. At that time the caves were still somewhat difficult to reach, the track up the mountain was rough.

We also went to see the famous monastery of Santillana²¹³ and walked to the house of Calderon de la Barque²¹⁴ on our way to the station. In Santander we visited the Biological Station which possessed a small aquarium with some interesting sea beasts. Then by way of Oviedo and Leon back to Vigo on our way home. On that railway journey one of the baggage

²¹¹ The Cueva de El Castillo, or the Cave of the Castle, is an archaeological site within the complex of the Caves of Monte Castillo. It contains some of the oldest known cave art in the world.

²¹² The Cave of Altamira is famous for its Upper Palaeolithic cave paintings featuring drawings and polychrome rock paintings of wild mammals and human hands. It was the first cave in which prehistoric cave paintings were discovered.

²¹³ Santillana del Mar, 2km from the caves at Altamira.

²¹⁴ Pedro Calderon de la Barque, 17th century dramatist and poet.

waggons took fire, which provided excitement for the entire train staff and passengers but fortunately little damage was done.

[p. 173) **RUSSIA**

While travelling in Italy and Greece we had met a cultivated and charming Dane²¹⁵ who was interested in Greek and Roman antiquities; he owned a brewery in Copenhagen²¹⁶ of which he was very proud; eventually he left it to the Danish Academy of Sciences, I should think the only scientific institute to own such a property²¹⁷. We kept up a correspondence and hoped for an opportunity to accept his invitation to visit him.

The need for further study of some fish material in St. Petersburg and Moscow for the museum catalogue gave the hoped for opportunity in 1903. We travelled to Copenhagen where Dr. Jacobsen met us, and soon we were shown over the Carlsberg brewery where all the processes were most scientifically carried out and also most hygienically. After that demonstration we saw the collection of Greek and Roman remains as well as the collection of international medals.

From Copenhagen we went on to Stockholm. I found it a very clean city, the many islands on which it is built were connected by numerous ferries which rushed busily from one to the next continually as there were then few bridges.

My husband already had several friends in the university, met on his previous visits. Dr. Erland Nordenskiöld²¹⁸, the [p. 174) well-known traveller met us, and took us to the famous Deer Park, a large wooded area where specimen houses from the different district of Sweden have been brought together and set up as specimens of native building, they all had their local and original furnishings and the larger ones served as residences for the wardens who wear the traditional dress of the district for which the house illustrates the architecture; as far as possible they are natives of the special district the house represents. The woodland was left in its wild state, only the tracks were kept in order; there was also a small Zoological collection.

²¹⁵ Dr. Carl Jacobsen (1842-1914), son of Jacob Christian Jacobsen, the founder of the Carlsberg Brewery in Denmark.

²¹⁶ The Ny (New) Carlsberg Brewery.

²¹⁷ J. C. Jacobsen (father) established the Carlsberg Foundation in 1876 and gifted it to the Royal Academy of Sciences and Letters. Carl Jacobsen (son) fell out with his father in 1882 and set up the New Carlsberg Brewery. In 1902 Carl established the New Carlsberg Foundation, which took ownership of the New Carlsberg Brewery and became a division of the Carlsberg Foundation. The purpose of the New Carlsberg Foundation was to support Danish art galleries and promote the study of arts and art history.

²¹⁸ Baron Nils Erland Herbert Nordenskiöld (1877-1932) was a Swedish archaeologist and anthropologist.

Dr. Nordenskiöld had visited us in London when he came to lecture to the Royal Geographical Society on his travels in Patagonia and Bolivia. Arthur also saw much interesting material in the museums, including a large collection of fossil plants recently brought back from Greenland, indicating a much warmer climate for that frozen land long ages ago, even geologically speaking. We also saw the great collection of whales with the baleen bearing in the jaws the full complement of whale-bone in position, whereas in London there is only one specimen blade on either side.

We made an excursion to the ancient city of Uppsala with its renowned old University, there we were shown their great treasure, the famous Gothic codex²¹⁹, the Bible on purple vellum [p. 175] in silver characters, the sole source of our knowledge of Gothic. Arthur also saw Dr. Wiman's²²⁰ preparation of graptolites, an early form of life, etched out of the rock and preserved in tubes of glycerine so that they look like specimens of living lowly life. The students at Uppsala live in "nations" as in medieval times. The "nation" seems to be a sort of club with reading rooms, etc. There were no residences as at our universities but each "nation" has its own burial place in the cemetery. The plain around Uppsala was not interesting but the country around Stockholm is pretty with rocky hills covered with pine woods, the wooden farm buildings rising among them, with the many islands all scattered over the waters of the bay. We were quite happy there and went on to St. Petersburg through the Öland Islands and along the Finnish coast.

On arrival at St. Petersburg we were met and conducted to our hotel by members of the Museum staff, and next morning paid visits of ceremony to the heads of departments and to the members of the staff with whom Arthur had made acquaintance on his former visits; these heads of departments had also met my father²²¹ when he was studying fossil reptile bones in the various museums, so we had a very pleasant reception.

While my husband was absorbed in his examination of various fossils in the museum of the School of Mines, the [p. 176] Director took me through the mineral collection, where I saw lumps of gold, slabs of malachite, masses of silver, opal, agate, turquoise and every sort of dazzling precious thing, after which he took me down the very extensive model mine under the

²¹⁹ The Codex Argenteus, "Silver Book", is a 6th-century manuscript, originally containing a 4th century translation of the Bible into the Gothic language.

²²⁰ Carl Wiman (1867 – 1944) was a Swedish palaeontologist and the first professor of palaeontology at Uppsala University. See also Milner, 2015.

²²¹ Professor Harry Govier Seeley, FRS (1839-1909). See also Milner, 2015.

buildings, which was constructed and used for instruction in the training of engineering students. That same day we lunched with Academician Schmidt, who had prepared a banquet and gathered friends to meet us. I had to eat and enjoy whatever my father had praised when he had been similarly entertained. There was very special fresh caviar, various choice fishes, mushrooms of different sorts and some birds which my father had particularly enjoyed as well as many exotic fruits. After lunch we went across to the Museum and while my husband and the great men were occupied with discussions, a young assistant was detailed to take me round the collections. Later we went across to the Zoological Museum to see the Director who showed us the new mammoth which was quite wonderful. It had been dug up in the frozen swamps of Siberia. It has been in a low cliff, part of which slipped down, leaving the head of the beast exposed. Foxes came and ate the flesh of the head and trunk before the discovery was reported. The staff of the Museum who went to recover what they could, took frequent photographs of the progress of the work as they excavated the creature. [p. 177] It had slipped into a hole, struggled to get out and in the effort broke an artery, the body cavity was full of congealed blood. Dr. Hertz²²² was able to recover nearly all the skin and flesh of the body. It was mounted as if it were a living animal, and in the position in which it was found, only the head and trunk had to be restored, which was easy as portions of these animals had earlier been recovered from the frozen tundra. Here was a stuffed fossil with the twigs it had been eating at the moment of death still between its teeth. The skeleton of the animal was mounted in the middle of the gallery with the restored and mounted animal on one side, and on the other in cases muscles, hair, coagulated blood, etc. as well as the series of photographs depicting the recovery of the creature. I also saw the mammoth which had been known by its skeleton for some years as well as rhinoceros heads recovered from the tundra. Dr. Hertz, the member of the staff who superintended the excavation, said he never wanted to have anything to do with a dead mammoth again, the smell was so powerful as to nearly overcome him.

There was a large and splendid group of polar bears with one very tall one standing on its hind legs, which looked strange; the Director begged us not to look at it. A short time after this fine group had been set up, the emperor came round on a visit of inspection; he remarked quite [p. 178] casually that he thought polar bears were bigger than those in the group. A few

²²² Otto F. Herz, a zoologist on the Academy staff and the leader of the expedition into Siberia to recover the remains of the famous Beresovka mammoth in 1901. It is still on display in the Zoological Museum in St Petersburg.

days afterwards a Court official arrived and informed the Director that the Emperor said polar bears were bigger than those shown. The museum staff had to obtain another skin, cut the large mounted male bear in two pieces and sew the extra piece of skin into the middle of the body. No wonder it looked odd. To such lengths did ignorant Court officials go, to carry out what they imagined were the wishes of their august master.

The next day was the Emperor's birthday and we found the Director of the School of Mines, an imperial institution, in full official uniform with ribbons and orders; he had to go to a church service, he returned later with a symbolic offering of bread and salt. After Arthur had made more notes and seen more fishes we were invited to Dr. Schmidt's lodging to help finish the remains of the previous day's feast. Afterwards we went to the Botanic Gardens where there was a very fine collection of tree ferns.

Another day we went to the Alexander III Museum to see the great collection of pictures including the series of Napoleon at Moscow, a very remarkable set. There were many more modern pictures, largely landscapes, as well. There was also a large and valuable collection of old church pictures, icons, caskets, crowns, relics and other church [p. 179] items, including garments which needed expert knowledge to value them adequately. As usual on our journeys we attended church services, and listened to the splendid singing in the Russian churches, but we thought the music sounded melancholy. Kazan Cathedral in St. Petersburg attracted us with its glitter and splendour of bright decoration.

We were taken to a meeting of the Geographical Society to hear a Mongol give an account of Lhasa where he had managed to live hidden for a year and a half, this was before Sir Thomas Holdich²²³ entered the Sacred City and it was still unknown. We could not, of course, understand one word, but the photographs were good and clear. It was an interesting occasion and experience. The audience was almost entirely of soldiers and officials.

The city was full of Peter the Great and Catherine, for the following week the 200th anniversary of the founding of the city was to be celebrated. A portrait of Peter was on scent bottles, his bust surmounted cakes and packets of sweets, it was on almost every postcard and in most shop windows.

²²³ Colonel Sir Thomas Hungerford Holdich, KCMG, KCIE, CB (1843–1929) was an English geographer and president of the Royal Geographical Society (1917-1919). His book, *Tibet the Mysterious*, was published in 1906.

We had paid our visit to St. Petersburg just in time to see people and things, for our friends were all about to leave on their holidays for prolonged periods and the [p. 180] institutions would all be shut up and closed down until late in the autumn.

Next we went on to Moscow which was still simple, primitive and unspoiled by modern buildings creeping among its ancient glories. The buildings looked too fantastic to be real and usable, more oriental and historic than western; the conduct of affairs matched the out of the world appearance of the old city. It all looked more like a living fairy tale or picture book, especially as peasant dress was frequently met with in the streets.

Again we met with much kindness and help from Professor and Madame Pavlov²²⁴ whom I had met in my parents' home before my marriage. My husband had already visited Moscow twice, and was well acquainted with the University staff as well as that of the Museum. We made a short excursion to the country round Moscow for collecting purposes and of course visited the various churches and shrines of the Kremlin, that grim fortress. I also found my way to two picture galleries, but did not see anything particularly interesting. Peter the Great and Catherine, who tried to bring western culture to their vast territories, brought painters and sculptors, musicians, men of letters and men of science to their new capital to adorn it and to fill it with the work of the best people available at the time. French became the Court language, the scholars came largely from Germany, [p. 181] and at the time of my visit to St. Petersburg almost all the men we met had been trained in German Universities, and our conversations were conducted in German.

From Moscow we returned home by way of Warsaw where there was a large collection of fossil reptiles to be studied and noted. We brought back photographs of some of the more remarkable and interesting specimens, which Sir Ray Lankester used in his book *Extinct Animals*²²⁵. Dr. Amalitsky²²⁶ had collected the fossils in the Northern Dwina and was at that time preparing them for exhibition and study.

²²⁴ Professor Alexey P. Pavlov (1854–1929) and Maria Vasilievna Pavlova (1854 -1938), husband and wife palaeontologists at the Imperial Moscow University. See also Milner, 2015.

²²⁵ The book is based on Lankester's "... lectures adapted to a juvenile audience given by me during the Christmas holidays 1903-4 at the Royal Institution, London." and published in 1905. See pages 210-222 for a series of ten photographs, almost certainly the ones referred to. Lankester was both Keeper of Zoology and Director of the British Museum [Natural History] 1898-1907

²²⁶ Vladimir Prokhorovich Amalitskii (1860–1917) (alternative spelling: Amalitzky) was a Russian palaeontologist and professor at Warsaw University, who was involved in the discovery and excavation of the famous Late Permian fossil vertebrate fauna from the North Dvina River, Arkhangelsk District, Northern European Russia.

In Berlin we saw a large collection of mummified dogs from Inca graves in Peru, they were in the Museum of the Agricultural Institute.

[p. 182] **TRANSYLVANIA**

From time to time international visitors to the Museum came to our home where we welcomed them and introduced them to other research workers who would be interested to know them. One such visitor, who paid frequent visits to London, was Baron Franz Nopcsa²²⁷, the son of a Hungarian notable. He was working on and studying dinosaur bones of which specimens were found on his father's estate. Baron Nopcsa was also making a large scale and detailed map of Albania where he had travelled extensively. On one of his visits to London he arrived with a wild Albanian as a personal servant, who had no experience of town life or usual town customs. We had to set to work quickly to find a suitable furnished lodging where they could live during their stay in London. When Baron Franz came along to spend the evening with us talking about bones, the wild Albanian came along too, and had to be accommodated in our kitchen where he smoked all the time; being only used to earthen floors, he annoyed the cook a good deal as she had continually to swab up the floor covering; we produced a suitable vessel when he came a second time, but he was never a popular visitor below stairs particularly as he made no attempt to speak English.

In the summer of 1906 the Baron and Baroness Nopcsa invited us to visit them at their castle of Szacsal near Hatzeg in Transylvania²²⁸. It was a delightful prospect to visit so remote a country under such [p. 183] pleasant conditions, it would also give us an opportunity to revisit several cities in the course of the journey and renew friendships.

We went by way of Dresden and Prague; in both cities we visited the museums to see recent additions and to cement our friendships with the staffs, and then went on to Vienna where again we found many friends who were also glad to have news of my father with whom they were acquainted. Here too, Baron Franz Nopcsa met us and travelled with us to his home. Baron Nopcsa, père, met us at the station where a light carriage with four splendid horses

²²⁷ Baron Franz Nopcsa von Felső-Szilvás (also Baron Nopcsa von Felső-Szilvás, Baron Nopcsa, Ferenc Nopcsa, Nopcsa Ferenc, Baron Franz Nopcsa, and Franz Baron Nopcsa) (May 3, 1877 – April 25, 1933) was a highly eccentric Hungarian-born aristocrat, adventurer, scholar, and palaeontologist. He published many papers on dinosaurs and fossil reptiles and the Nopcsa collection in the NHM contains fossils from the late Cretaceous island locality in Romania. He is widely regarded as one of the founders of palaeobiology and Albanian studies. See the chapter on Lady Smith Woodward's tablecloth (Milner 2015).

²²⁸ Now part of Romania.

awaited us, the coachman in a grand livery bearing numerous brass buttons and with an ostrich feather upright in his hat, a second man was in a sort of military uniform with a gold braided cap. We drove like the wind to the castle which was situated at the foot of high mountains on the edge of a wide cultivated valley, and looking across it to the bordering mountains on the far side. The house had been modernised and enlarged, but kept in the same solid style of the original feudal castle. I slept in a vaulted room with very deep window openings on the ground floor. The room had bare boards with a few beautiful rugs scattered on it. My husband had a similar room. The style was old baronial with modern luxuries. The house occupied one side of an immense courtyard where people came and went continually, the servant's quarters, the very large stables and outbuildings completed the other sides of the square where the chariot with the four horses could easily drive round between the trees.

[p. 184] The Baron had many beautiful horses and always drove with four which went at a great speed.

After an expedition the horses were walked round the courtyard for prolonged periods to cool off after the racing journey, before being shut up. When we went out alone with Baron Franz the elder son, we only had two horses.

There was a first class chef, and the lady's maid came every morning, until the Baroness returned home, to brush my hair for half an hour, a luxury I very much enjoyed.

The Baroness and her daughter were away from home on a visit when we arrived.

There were oak forests round the estate and fine gardens beyond the house with lawns, beautiful roses and a pretty little lake. The meadow grass was full of flowers, the ripe cornfields were blue with cornflowers, but there were few poppies. It was all very beautiful.

Each day together with Baron Franz we went out to the dinosaur site and collected bones which eventually were given to the British Museum; in the evenings the two enthusiasts patched the bits together. The young Baron was very much taken up with his map of Albania, a tremendous piece of work. It was nearly ready for publication in the autumn. We had no idea at the time that he would become deeply involved in Albanian politics and that the result would be tragedy²²⁹.

One day, Baron Nopcsa had his gala costume, jewels and swords brought out for me to see. The tunic was of handsome brocade woven [p. 185] with gold thread, buttons, chains,

²²⁹ A translation of his memoirs was published in 2013: *Travels in the Balkans: The Memoirs of Baron Franz Nopcsa*, edited and translated by Robert Elsie, published by Central European University Press.

sword belt and scabbard all set and covered with Burmese rubies, emeralds and diamonds in very lovely white and black enamel. A second splendid sword had a sheath of exquisite silverwork, set with turquoises; it was old Turkish. Yet another of the time of Maria Theresa had a black velvet scabbard with chased gold work set with pearls.

I went with the Baron to pay a visit of ceremony when he wore all his finery and was a truly splendid figure. I felt very Cinderella-ish sitting beside him, and behind the four magnificent horses covered with elaborate leather trappings. The Baron had on his gold brocade tunic and a dolman²³⁰ lined with sable skins slung over one shoulder, white buckskin breeches, high shining black boots with gold embroidered tops, sword belt, sword, tunic buttons, all gleaming with glittering gems, and a fur cap with a high egret plume in front. A figure the equal of any pictured fairy prince. We seemed far away in our strange surroundings and civilisation distantly behind us.

The Baron and Baron Franz took me with them to the chief town of the neighbourhood to attend the installation of the equivalent of a new Lord-Lieutenant of a District. I got up at 1.30 in the morning and went by train with the family. There was a great gathering of notables, all in gala dress, wearing their jewels, most of them far too hot in their fur lined dolmans and fur caps. I was conducted to a gallery, a sort of harem where the ladies sat behind a [p. 186] grille which hid them from the menfolk on the floor of the hall. At the end of the proceedings there was a grand feast. I was introduced to the Baroness and her daughter who had come back to attend the function. I was introduced also to many of the ladies present, but I returned with the Baron to Szacsal while the rest of the family spent the night dancing till dawn. Next day the Baroness returned to the castle. She gave a party to the neighbouring villages so that I might see the local costumes, to which the school-children also brought their needlework and embroidery for me to inspect. It is mostly worked in black thread on white linen. I have a very fine cushion which followed me home as a memento of a wonderful holiday. The exhibition of needlework and embroidery and the party took place in the immense courtyard, refreshments were served to the villagers from a buffet near the servants' quarters. The village folk had brought their musical instruments with them and spent the evening dancing, a most interesting experience for us, and a very lively one. Finally the house party retired indoors and the people went home.

²³⁰ A long Turkish outer robe.

The peasants there were Roumanian. They wore white linen clothes, hand woven with black embroideries. The long shirt was worn over the trousers, with a strong wide black leather belt and a wide brimmed black felt hat, very rough sandals and the ankles bound with blanket cloth. They wore no underclothes, and small boys and girls wore a single garment reaching to the ankles rather like an old-fashioned nightgown. The womens' dress was peculiar, [p. 187] they wore a full petticoat of white linen, a woven woollen apron in front and another behind with a fringe, both reaching to the edge of the petticoat, the bodice was full with full sleeves ending in deep frills just below the elbow, black embroideries on all the edges, on the shoulders and down the sleeves. Two short horns of cane were worn on the top of the head towards the back, these horns were covered with heavily embroidered caps, and then a large white cloth put on over the whole, forming a sort of wimple, just as the Duchess in *Alice in Wonderland* appears. The women were often barefoot, but sometimes wore high boots. Every scrap of land was cultivated and mountains carefully forested, maize, wheat, barley and forage were the usual crops. All the gardens were full of vegetables. Most of the smaller village houses were of wattle and daub with high-pitched roofs of thatch, each stood in its own courtyard with a granary, stable and pigsties round the sides. Each peasant owned his patch of garden and a grain field, they lived mainly on Indian corn. They had a curious custom, when there was a marriageable girl in the house a sapling with a tuft of leaves at the top was planted beside the gate as an invitation to all to come and inspect.

One evening, chatting with the Baron, he expressed his surprise that his son should be so much interested in fossil bones and care so much about them. He could not understand it at all. It was curious, he said, it might have been gambling, or women or drink, [p. 188] but his interest was bones. This to me was a new aspect of geology. When I related the conversation to my highly respected Papa and my self-respecting husband they were both very highly diverted.

Dinosaur bones from another locality where they are still found in numbers, were remarked on in medieval times. They were usually large limb-bones and gave rise to the German folk tales of giants, which have been recorded by the Brothers Grimm. Dinosaur bones have even been detected by skilled observers among saints' relics.

Here the Memories end.

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