

Prologue

Several authors claim that on the day Alexander von Humboldt died there were found on his abandoned work-desk three slips of paper on which were written the same sentence taken from Genesis, chapter two: ‘Thus the heavens and the earth were completed in all their vast array’.¹

The source for this claim has been attributed to Alexander’s faithful valet, Johann Seifert, who served him through thick and thin over several decades. There is no reason to doubt Seifert’s word and so we are left to make sense of the quotation which, as Alex was in no strict sense a religious man, may not be as straightforward as first thought.

Seen in context, the Biblical statement has direct bearing on the life and work of Humboldt who dedicated himself firstly to the study of the Creation and then secondly to the publication of the fruits of such studies – and those of very many other like-minded scientists and scholars – so that all, then and now, could benefit. This overtly humanistic streak is ubiquitous in his writings, seen most clearly in the five volumes of his major work entitled *Cosmos*, the term he preferred to describe the heavens and the earth and all that lay between.

The peace that Blaeser caught on his death mask arises in part at least from the fact that Humboldt knew that his work – indeed, his life’s passion – was being published. It would not matter that volume five would appear posthumously. But, unlike the work of the Creation, the publication called *Cosmos* could never be termed ‘completed’. Such is the nature of scientific research and endeavour that new facts and figures are uncovered almost on a daily basis; anticipating this, Alex left his work in such a way that later scholars could make additions or deletions to the data he had amassed. In this way his text would always be current and useful for it would always be revised and updated. A noble intention, to be sure, but it never came to pass.

A study of *Cosmos* will show that the subject area chosen by the acclaimed greatest naturalist of his day was nothing less than ‘the heavens

and the earth in all their vast array'. Alexander fervently believed that astronomy, geography, oceanography, geology and botany were worthy of study because each discipline conjoined to make up the world in which we live and die. Such subjects indeed became the focus of his attention but what emerged increasingly from their study was the discovery that all such branches of knowledge were indissolubly connected. No wonder then that he soon began to seek the common thread that linked them all, that hidden essence that proved that unity in diversity was a reality and not just a philosopher's (or a scientist's) dream.

Linked to the statement taken from Genesis is the corroborated fact that a few months before he died he began to reflect on the sayings of Heraclitus. Some five-hundred years before Christ, Heraclitus regarded the universe as a ceaselessly changing conflict of opposites in which everything existed in a harmonious process of constant change; he also held that fire, the essence of this constant change, was their origin. There is no doubt that Humboldt believed in the ceaseless conflict of opposites, but he also perceived an underlying, unchanging principle – let's call it energy – whose laws of transformation govern the whole of nature. Transformation, change, action and reaction have their causes and so Humboldt set out to discover the laws that lie unseen behind the endless chain of events that occur in Nature.

He did everything in his power to obtain an accurate understanding of the major physical features of our world, whether rivers, mountains, volcanoes, flora and fauna or the location of the planets and fixed stars, even the quality and intensity of sunlight.

In fact, Humboldt was never indifferent to anything worth knowing. And what could be more worthwhile and useful to mankind than an accurate and detailed knowledge of the world we inhabit? And so he embarked on an incredibly ambitious enterprise – namely, to give a scientifically accurate picture of the structure of the universe which would attract the general interest of the educated public and communicate some of the excitement of scientific study to the non-scientific mind.

In a letter to Varnhagen von Ense dated Berlin 27 October 1834, he reveals his intentions:

Together with the facts, every great and important idea which has come to light anywhere will be noted. It [*Cosmos*] is meant to describe a chapter of the intellectual development of mankind. . . . It is not meant to be what is commonly called a physical description of the earth, it comprises earth and sky, the whole creation. . . .²

In a nutshell we can see Humboldt's clear aim: nothing less than an immense undertaking in the noble pursuit of knowledge. Living in the wake of Leibniz and being a contemporary of Kant, he would not have been unaware of the philosophical debate that raged at the time and centred precisely on the nature and the limits of human knowledge. Our knowledge of the world, so ran the argument, was based upon perception, memories, thoughts and feelings. The real question remained, however: was it at all possible to have knowledge of the world that transcended all of this? In brief, can we have knowledge of the world that is not just knowledge of our own point of view?³

It is, in part at least, in answer to this simple question that he set out on an intellectual (and physical) voyage of discovery that was to lead to an extraordinary range of life experiences; the outcome was the shaping of a totally inspirational human being. Factual knowledge is what he sought for he loathed hearsay, conjecture, uninformed opinion and everything to do with guesswork and so, to help him on his way, he would use only the best of scientific instruments – and the number used was surprisingly high. He took advantage of learned friends and colleagues, scholars and patrons, and would mix with kings and presidents, emperors and princes, envoys and foreign statesmen, and travel far and wide in an age when boat, horse and carriage, mule and donkey were the major modes of transport – especially in the Americas where he spent some five years and then, when aged 60, in Russia and Siberia where he spent nine long months.

All in all, it is true to say that his like will never be seen again. We live in an age of increasing specialisation – and professionalisation – that makes the breadth (and depth) of knowledge Humboldt aspired to attain an impossibility. And yet it was due to his efforts in several fields of knowledge that the need to specialise arose. In this regard he may be seen as a victim of his own success. Given that the developments in disciplines such as geology, botany, astronomy, physical geography and meteorology have led to increasing specialisation, any pioneer of such is quickly forgotten. And that is to be lamented because what has happened is that his exploits and achievements have become 'lost' to the modern world, especially so in English-speaking nations where his major works are no longer available in translation. In this sad fact lies the justification of an attempt of a new biography. Our age needs inspiration; more than ever today's young people need role models who offer more than a guitar, recreational drugs, fast cars and the empty glamour of celebrity mania.

A study of the life and times of Alexander von Humboldt is, I believe,

a welcome antidote to materialistic pursuits that, ultimately, serve nobody, least of all those who promote them. Despite the explosion of knowledge in the twentieth century which continues unabatedly in the present, his questions remain our questions, too. In which direction is our solar system moving? How does a total eclipse occur and why? How does the telescope change our view of the world? What can layers of different rock formation teach us about the earth's history? How and why do volcanoes erupt? What makes up the air we breathe? How do we know we know, and can we have a 'total' picture of the world, or indeed of anything?

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Introduction

Alexander von Humboldt did not seek to have biographies written about him; he shunned eulogies and whenever possible avoided ‘celebratory dinners’ given in his honour. Yet despite this rather self-effacing attitude, biographical material was being collected even before he died. Indeed in 1850, some nine years before his death, he was approached by the Brockhaus *Conversations-Lexicon* to supply a skeleton biography.¹ It was clear that a full-length biographical study would follow. After all, the name of Alexander von Humboldt was known on both sides of the Atlantic; towns, lakes, mountains and even an ocean current bore his name. His deserved fame stretched from Berlin to Bogotá, from Siberia to Santa Cruz in Mexico.

It fell to Karl Bruhns, a close friend, to edit the so-called ‘first scientific biography’ of Alexander von Humboldt that was published in 1869. Being so close to his subject in terms of chronology, it is surprising that later biographies have, seemingly, taken little note of his findings, although some have drawn on his extensive two-volumed edition (but often without acknowledging the source). It is fitting therefore that this biographical study should begin with an acknowledgement of Bruhn’s edition – written not by him but by three scholars – and reiterate what Bruhns stated in his introduction:

A biography compiled without the aid of correspondence or other manuscript records could no more give a life-like representation of Humboldt than a cold marble bust can approach the glow of living flesh.²

Bruhns was well aware of Humboldt’s letters to his older brother Wilhelm, to Gabriele Wegener, Varnhagen von Ense, Samuel, Heinrich Spiker and many others and knew that any biography worthy of the name had to include Humboldt’s prolific correspondence. Moreover, he was convinced of the need of a biography and thought it best to write

one to coincide with 1869, the centenary of Alexander's birth. He also realised that those who had known Humboldt personally were fast dying off.

1868 marked a good beginning for Bruhns' plans of a biography because the letters from Alexander to Marie August Pictet were published in the geographical magazine, *Le Globe*. This was followed the subsequent year by the publication of the correspondence between Humboldt and Count Georg Cancrin, finance minister for Tsar Nicholas I, and that between Humboldt and Baron von Bunsen. Both texts revealed new and important biographical data. Furthermore Bruhns had access to all the documents relating to Humboldt that had been deposited in the Berlin Observatory, and from Frau von Bülow (Humboldt's niece) he obtained the journals kept by Humboldt during his travels in the Americas and in Asia. The Empress Queen Augusta placed at his disposal many of Humboldt's unpublished letters and Seifert, Humboldt's valet over several years, presented Bruhns with some five-hundred letters most of which relate to the years 1849-59.³

Bearing in mind his own statement above about the writing of biographies, Bruhns would have felt very pleased at such timely publications and of offers of documents. He then chose three experts to compile the biography: Julius Löwenburg wrote about Humboldt's early life, study and travels; Robert Avé-Lallemant discussed the years Humboldt spent in Paris; and Alfred Dove covered the years 1827-59, the year Humboldt died. The fact that Bruhns believed he needed three scholars to do justice to the biography must serve as a warning to present-day would-be biographers as apart from the translation into English of Bruhns' text published in London in 1873 and long since out of print, relatively few attempts in English have followed. In the twentieth century Helmut de Terra wrote a biography published in 1955, followed in 1963 by that of Lotte Kellner and latterly by the pictorial reference biographical study of Douglas Botting in 1973 and republished – but not updated – in 2010. Mention should also be made of the text written by Gerard Helferich, entitled *Humboldt's Cosmos* and published in 2005. Although useful, it is based almost exclusively on the five years Humboldt spent in the Americas and therefore cannot qualify as a bona fide biographical study.

Other biographies have been written, notably in French, Spanish and German. Possibly the most useful of the more recent ones is that of Kurt Biermann who was one-time director of the Humboldt Research Centre in Berlin and a leading authority on the life and times of Alexander von Humboldt. The fourth edition of his biography written in German

appeared in 1990 and was intended to keep Humboldt's works and name alive in the public domain. The very recent biography by Manfred Geier (2009) is of the two Humboldt brothers and while offering useful insights into aspects of Alexander's life is more concerned with the relationship between them. It says very little of the five years Alex spent in S. America and of the prodigious correspondence he maintained throughout his long life.

Given that the last relevant biographical study of Humboldt in English was that of Douglas Botting as long ago as 1973, (I say relevant simply because the work by Nicolaas Rupke, *A Metabiography* (2005), is too specialised to be useful to the general reader in that it examines the underlying ideology that gave rise to earlier biographies written by Germans), it is high time that a new appraisal of the life and times of Humboldt was written that aimed at a new and ever-growing English-speaking readership that may never have even heard of Humboldt or of his outstanding achievements. What is now needed is a biography that includes the most recent research. From its inception the Humboldt Centre of Research in Berlin has published – especially in the last two decades – a series of articles, monographs and books that examine in depth aspects of both the life and works of Humboldt that were not available to previous biographers, works that Bruhns could hardly have foreseen but would have enthusiastically endorsed.

It is true to say that our understanding – and therefore our appreciation – of Alexander von Humboldt has undergone profound changes as a result of such comprehensive and detailed studies and, perhaps, those of his correspondence have had the biggest impact. Very recent scholarly editions exist of works detailing his correspondence with North American colleagues and friends (2004), Christian Carl Bunsen (2006) and Samuel Heinrich Spiker, librarian and publisher (2007). Alongside such studies mention must be made of Petra Werner's unique analysis of the contributors to *Cosmos* that appeared in 2006, of Aaron Sachs exhaustive study of Humboldt and of his influence on four outstanding North American explorers and scientists published in 2007. Furthermore, a good number of monographs and articles have appeared that deal exclusively with particular journeys, e.g. Humboldt's trips and stay in Mexico, his journey on the Magdalena river in South America, his exploration of the equinoctial regions, his very important study-trip to Russia and Siberia; others discuss aspects of Humboldt's work or life, such as his essay on Cuba, his friendship with Aimé Bonpland, his association with foreign envoys and diplomats in Berlin and Paris and his time spent as an inspector of mines.

Indeed, it would be true to say that Humboldt (and his brother Wilhelm) have given rise to an ever-growing industry of books, publications, articles, conferences and research projects that neither could have envisaged. With regard to Alexander, the subject of this biography, the harvest has been particularly rich. Such a plethora of new material does not make the biographer's burden any lighter, however; equally as daunting is the amount of material Humboldt wrote or published. As Jason Wilson rightly concludes, 'Most commentators have taken specialised aspects of Humboldt, and dealt uniquely with that aspect.'⁴

The main reason why biographers have shied away from Humboldt concerns language skills. He was an excellent linguist and wrote fluently in French, Spanish and German; he was also more than proficient in English. The fact that he wrote most of his works in these languages has proven a barrier not helped by the fact that no translation of his entire output exists and often where translations do exist, they are out of print or simply unavailable. The translation of Bruhns' edition of Humboldt's biography is a case in point; the few copies that are extant are now housed in specialised libraries and it is highly unlikely a reprint will appear in the near future.

Bruhns ended the introduction to his edition by saying that his main aim was 'to controvert the false and unfounded representations that have prevailed hitherto; and he would fulfil his aim by 'the introduction of proofs never before published'.⁵

This shows that even during Humboldt's lifetime contradictory accounts existed; it is always the case, however, that myths, legends and speculative theories surround anyone who may be called a genius.

In this biography the main aim is to present to the English-speaking nations of the world an account of the life and times of an indisputably outstanding individual based on the latest authenticated documentation. It is also intended for those readers, no doubt the overwhelming majority, who lack the confidence or the competence to read Humboldt's original texts written in French, German and Spanish or the ever-growing volume of critical works, including biographical studies, also written in those languages. Seen in this light this work serves a dual purpose: it reintroduces to an immense and new reading public a leading figure of European life and culture at a time when Europe was clearly 'on the move'. It also removes the obstacle of the 'language barrier'; translations are provided of what I consider to be central or relevant statements that are knitted into the text without interrupting the narrative thread. In this way continuity is maintained while notes to references for each chapter have been gathered at the end of the book.

The reader will find that Humboldt's concerns are very much present today; the environment, the laws that govern the physical universe, the thirst for knowledge, progress and experience of life, the quest for an understanding of our place in the universe, social justice and the need – and willingness – to help others. Who could find fault with such basic and quintessentially human issues? They are perennial concerns, integral to living and very much shape our thinking and therefore the world around us. Moreover, Humboldt was as much interested in the enjoyment of life as he was in the discovery of laws and processes in Nature that could bring benefit to the whole of mankind. It is all too easy to overlook the enormous humanity expressed throughout his life and works. Even though he was once absurdly accused of being an 'assassin of souls', what emerges from his experiences of life is his love of disciplined, purposeful living devoted to the welfare of others. This is seen in his study of what we now term the Natural Sciences, although his intellectual interests and pursuits went far beyond science *per se*.

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