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A Minnesotan at the University of Berlin in the 1870s: The Graduate Studies of Alexander Vander Horck

Several years back, a colleague brought me a packet of nearly three hundred pages and scraps of old German script on brittle paper. The bulk of the material turned out to be the full text or parts of 130 letters written to his family in Minnesota by a young American, Alexander Vander Horck (1854-1912), who studied medicine from 1873 to 1878, at the then Friedrich Wilhelms University in Berlin. The correspondence abruptly begins with two Berlin letters in English from December 1873, and then continues in German script.¹ Only Alexander's part of the correspondence has been saved. His letters, almost always written in haste, run from cliché to the mundane to the big event—all in one marvelous, but frustrating, scramble. The letters, apart from passages of routine family chatter, amount to a long soliloquy from a gifted, somewhat self-centered, determined young man.

This report, based on the archival find, is not, therefore, a historical research study of university life in the Berlin of the 1870s. Many of the letters simply record the impressions of a diligent, talented, highstrung, ambitious, self-absorbed, financially strapped young Minnesotan—just a few years away from the American frontier—who found himself accepted into the company of leading scientists in a European capital. The traditional historian may be frustrated at the deadend leads and the lack of corroboration of much found in Alexander's letters. But those who enjoy history as story, as an unfolding of perspective will delight in this unique insight into the developing scientific world at a leading German university during a period in which American academics looked to the new German research university as a model for their own emerging landgrant institutions.

Alexander—the eldest of four brothers—was born 7 February 1854 in Galena, Illinois, to recent German immigrants. John Vander Horck, his

father, was trained in the hardware business. As a political "forty-eighter," he had left his Lower Rhine homeland at age twenty-two in 1852.² Alexander's mother, Eliza Zensius, was the daughter of a liberal teacher from the Mosel region who also had felt it best to take his family from a reactionary country to a new life in the United States. John and Eliza married in Galena in 1853 and, in 1855, moved on to Brooklynd (now West St. Paul) in Minnesota. There they opened a grocery store, and John became town treasurer.

When the Civil War broke out, John was commissioned a captain and soon found himself in command at Fort Abercrombie in the Dakota Territory during the Lakota (Sioux) attacks of 1862. The remainder of the war he was stationed with his family at Fort Leavenworth in Kansas. The family had moved to Minneapolis by 1864, but alternated residence from fort to city throughout the war years.

So Alexander's childhood was spent at forts on the American frontier and later in Minneapolis where his father established himself both in the hardware trade and in local politics. Until age eleven, Alexander had been tutored at military outposts; his education then continued in Minneapolis public schools. After graduating at fifteen in 1869 from the old East High School, he received special regents' dispensation for his age to matriculate at the fledgling University of Minnesota.³

At that time the university was little more than a preparatory school with a staff of nine professors. The prescribed curriculum listed courses in English, German, classics, algebra, geometry, geography, physiology and drafting. Mondays, there was a lecture on agriculture; Fridays, students practiced rhetoric. And three times a week, the class schedule included "Military Exercises by Maj. Gen. Johnson."⁴

At the University of Minnesota, Alexander came under the influence of Dr. William Watts Folwell, a recently arrived mathematics professor who, at age thirty-nine, was appointed president of the university in the same year (1869) in which Alexander entered the university.⁵ Folwell, a native of New York state, held degrees from Hobart College. He had experience teaching languages in an academy and mathematics at his alma mater. Following a year of graduate study in Berlin, Folwell returned to the United States in 1861, for military service in the Civil War. After the war while working in business, he returned to teaching at Kenyon College from where he was soon called to Minnesota. Folwell was one of several new American academic leaders who, from his own experience in Europe, advocated that universities in the United States follow the new German university model. In fact, Folwell was the first to publicly advocate such a reform in his inaugural address as president. In his personal career and teaching, Folwell looked to Alexander von Humboldt as an ideal for the new scientist scholar.

It is not surprising then that the eighteen-year-old Alexander Vander Horck, upon completing the university curriculum, left Minnesota in 1872 for further study in Europe. But he remained proud of the rearing and education he had received, as he expressed in a toast to his parents:

My thanks first of all to you—you who in the Far West of America have not forgotten the independent German spirit and who have educated my brothers and me, giving us good teachers and a contemporary education. If I have accomplished anything, then it is due to the public, practical education I enjoyed in the 100 year old Republic. [Letter of 15 February 1876]⁶

After spending some time in London and at Oxford, he decided to matriculate in the fall of 1873 in Berlin where the Humboldts had been so influential. His choice of medicine showed practical concern for a future livelihood, for his father expected him to return to Minnesota to practice medicine and perhaps to teach.⁷ But he was also influenced in his choice of medicine by the fact that in the 1870s, the Charité in Berlin, the public teaching hospital that housed the College of Medicine, had the best-known faculty of the university.

It was to Bismarck's Berlin that Alexander came in the fall of 1873, to study medicine.⁸ The newly founded German Empire, its awakening capital city, and the reformed university were all, in their own ways, upstarts. For Alexander—who already at nineteen was himself a self-assured, talented, undaunted upstart—it proved the right place to be.

The capital of the German Reich was becoming a modern city that, it was hoped, would rival New York, London, and Paris. Entrepreneurs had new resources for their schemes in the reparations owed by France in the early 1870s following the Franco-Prussian War. The city was a developing industrial center which attracted the needed work force from rural communities, including Silesia and Polish areas to the east. By 1875, Berlin had grown to a population of about 900,000—with all the attendant problems of high rents, crowded slum housing, increased pressure on public utilities, and the stress generated by growing public health problems.

Here and there throughout the letters, a picture of the developing city emerges: "We're having the nicest May weather; we'd really be able to enjoy it if the warm sun didn't bring forth terrible stench from all the little corners and back streets. The dust and the Brandenburg snow (as the sand is called here) make the streets miserable" [29 May 1875]. Alexander found Berlin lagged behind other leading cities: "Petersburg is nice, palaces on the Neva, beautiful flowers, everything attractive.

Berlin hasn't emerged yet from the shadows. I find it less developed than all other major cities—but sooner or later" [29 September 1875].

The optimism engendered internationally by liberal trade policies during the economic boom in the early 1870s soon gave way to a growing worldwide depression. It all started when world wheat prices collapsed in 1873 with the new flood of grain from the American prairie, the Argentine pampas and later the Ukraine. By 1878, nations everywhere were retreating from liberal trade policies as grain prices plummeted further, gold dropped in value, companies failed, loans were scarce, and stocks became worthless. Naturally, the bad economic times impacted upon Alexander. The letters reflect his family's severe financial plight in Minnesota and tell of Alexander's schemes to make money so that he might complete his studies.⁹ There are touching sections such as the one in which Alexander asks his mother to send him a glove he had forgotten at home so he will not have to buy a new pair for winter. But then there are passages of amusing fiscal naiveté: "I'll probably be getting a piano in the next few days. I've arranged to have Caecil [his roommate from Africa] pay half the cost; in exchange I'll give him lessons. So it will be cheap. Speaking of costs . . . I haven't heated for two months and saved 8 thalers that way. But now it's getting too cold, and we'll have to heat. You can be sure that I don't make any unnecessary purchases" [1 January 1875]. Money worries were to trouble him to the very end of his studies. Even the microscope he begged and scraped so long to purchase had to be turned over as collateral for a loan needed to pay his final medical examination fees.

A quick look at the university is in order before Alexander's tale takes over. The Friedrich Wilhelms University (the modern Humboldt University) in Berlin was a relatively new institution, having been founded in 1809 during the turbulent Napoleonic era under Friedrich Wilhelm III by the most progressive statesman and thinker in Prussia, Wilhelm von Humboldt (1767-1835). It was he who had reformed the German schools while serving as minister of education. He believed the new university should be solidly based upon recent revivals in the liberal arts and philosophy. He also began bringing together the existing trade schools in Berlin—such as the academy of mines, the military medical institute, and the school of agriculture—into the developing research-oriented university. Soon the new university in Berlin was recruiting established scholars from older universities and attracted both talented professors and students by its emphasis on research as the basis for teaching. For example, Rudolf Virchow was called from a professorship in Würzburg to Berlin in 1856, after he had made his breakthrough discovery of cellular pathology. So too, the chemist August Hofmann, following university posts in London and Bonn, was invited to Berlin

where he made his major discoveries in chemical dyes and nitrogen compounds.

The Friedrich Wilhelms University in the 1870s had a student population that, for several reasons, fluctuated considerably from semester to semester. The economic situation caused drastic drops in enrollments. Alexander noted: "Given the poor conditions in Berlin . . . the number of students is falling off. There are about 98 fewer medical students here than last semester, which is a big loss in Berlin" [10 January 1874]. But traditional student behaviors also played a role; some followed the German tradition of attending another university for a semester or a year; some simply dropped out under academic pressure; and still others while completing research and preparing for examinations saved money by not registering for course work. The university, for example, in spring 1877, listed a total of 2,237 students matriculated in all disciplines. However, only 515 were actually registered for courses; 438 of these were Prussian citizens, and 77 came from other German states or foreign countries.¹⁰

During Alexander's final semester, the college or, as it was called, "Faculty of Medicine" recorded 216 Prussian and 88 students from other states—including fourteen Americans; but only 54 nationals and twelve foreign students were enrolled in courses that spring semester. With a teaching staff of approximately twenty professors in medicine and allied fields, there was a similar professor-student ratio as is found in a present-day American medical school. Course work consisted of lectures open to all students and lectures with accompanying laboratory tutorials limited to approved medical students. For example, the class schedule for spring semester 1875, listed Rudolf Virchow for a lecture on pathological anatomy, five days a week with three two-hour laboratory sections to accompany the lectures. He also scheduled three two-hour pathological histology laboratory sessions for advanced students. On Saturdays, he held a two-hour lecture on diseases of the brain and spinal column that was open to all. That amounted to nineteen hours a week of lectures and laboratory sessions for a famous professor, researcher, administrator, politician. It is no wonder then that Alexander frequently mentioned the long work days that were expected of him.

The public record of Rudolf Virchow (1821-1902) deserves some attention here for his importance to science, the university and Alexander's own life.¹¹ It would not be exaggeration to say Virchow was the embodiment of the new research university in Germany. Virchow was one of the first physician advocates for public health policy. The young Dr. Virchow had learned the consequences of government neglect in such matters during a terrible typhus outbreak in Silesia. As a consequence, he became a founder of the most liberal political party in Germany which advocated all matter of health policy and legislation. Virchow battled for these causes for forty years on the Berlin City Council

and later as a member of the Reichstag. He was personally responsible for the creation of modern water and sanitary systems in Berlin, the introduction of city inspection of meat, and the establishment of state-of-the-art hospitals to serve the general public of the city. On the national scene, he introduced the first general survey of school-age children for health screening and for gathering statistical data on the population for scientific study.

It really is not surprising that right from the beginning, Alexander often put in a sixteen or even twenty-hour day in a degree program headed by Virchow. In his first years at the university, he threw himself into his studies and took make-up tutorials in chemistry under Hofmann. He complained that few of his fellow students were as serious as he was and grouched that it was essential for students to get to know their professors personally since they seemed to hold arbitrary sway over one's fate. One of several telling passages in the letters explains:

Yesterday Caecil got two crates and a package from his parents; they contain African ostrich feathers, coral, and a lot of spears, weapons, etc. He gave me some. He also gave a few to different profs here whose favor he needs; this is very important for getting to know them better. Otherwise the professors are so reserved that you don't come in contact with them. By my lucky star I've gotten in with Reichert and Hartmann; but, of course, I've been of service to them. Still I'd like to get to know Professor Bois-Reymond and Hoffman [sic] better. So if you'd send me some things . . . some products of our country, maple syrup and some Indian artifacts of birch bark and a few small bottles of maple syrup, some sugar beets, and a few stuffed birds (hummingbirds, blackbirds and woodpeckers). [29 January 1875]

He tells his parents students need formal attire: "Luckily I had just had a suit of formal wear made. . . . I had to have one especially because I am an assistant. Also as a student, one is to be formally dressed when at a professor's home, also at the examinations and at every little affair" [1 January 1875]. In a later letter he mentions that formal dress was required when he worked long hours in the hospital laboratories such as anatomy and pathology.

Alexander's talent and penchant for hard work were soon recognized, and he found himself not only loaded down with full-time studies but with extra laboratory hours helping several professors. He worked as a research assistant first of all for the histologist and embryologist Karl Reichert, a congenial elderly gentleman who relied upon Alexander's youthful eyesight:

I was able to make a few discoveries with the microscope while working with the professor. It was "ascidias"—little animals which in nature are just visible to the naked eye and which now the whole learned world is excited about in that, as many maintain, they create the transition to vertebrates which would be like gold for Darwin, etc. But unfortunately this doesn't seem to be the case. So I worked from early morning until late afternoon with the professor who wouldn't let me go because, as he said, I had a good pair of eyes and I had to keep looking through the microscope. This is terribly tiring and stressful. As I already wrote to you, I'm an assistant (*famulus*) for Virchow. When old Reichert heard that, he didn't want to agree to it at first and told me not to accept. He said I should stay with him because Virchow would twist me around with his theories—at least that was the thrust of his conversation with me. But I told him I didn't have so much time to spend on anatomy. However, I promised to come over and work on the microscope with him. Then he too said I could profit a lot from the Virchow position if I knew how to use it. [2 April 1875]

Alexander's grinding routine is seen in an excerpt from a passage on his work with the anatomist Robert Hartmann, who was also an anthropologist with field experience in Africa:

I'm still in the best of health even though I get up between 5 and 6 in the morning and don't get to bed until 1 or 2 am. . . . Last night I went along to bury the corpses from anatomy and to bring back fresh ones. It took most of the night. . . . A few days ago I took part in a court-ordered microscopic investigation with Prof. Sonnenschein, the famous chemist, best known for his criminal investigations. I had to check the source of blood spots on an ax and how the deed was done. Through the microscope I found several torn pieces of skin of a deep red color which matched the murder victim. There were also wool strands of violet color from the sleeve of the bathrobe and a bunch of other interesting evidence. They led to a murderer—perhaps the whole case will be built on this. [28 April 1875]

It was his work with Reichert, Hartmann and others that brought Alexander to Virchow's attention. As noted above, Virchow was recognized as the most famous light of the university in the second half of the nineteenth century. "The Matador of the University," Alexander once described him. A man of prodigious drive and talent, Virchow recognized similar qualities in the young American he chose as his

"famulus" or research assistant. Alexander's letters attest throughout that his famous mentor and patron helped shape his own attitudes toward science, research, medicine and public health. Still several passages indicate that Alexander held his ground and was one of the few individuals Virchow treated humanely:

Even Virchow can't change my mind although I owe him respect in all other matters. At such times he says: "You're such an *individualistic human being* that I can't do anything with you." But he never gets angry. No one else around him dares to tell him the things I say without hesitation. Yes, I've seen the great Virchow sitting in front of me without his mask (unfortunately he does wear one) when he'd bend down close to divulge something or other in confidence. As he told me later, he would guard himself from telling any person as much as he's told me. Those were his very words. Unfortunately, I believe Virchow lacks the slightest bit of simple human love. He tyrannizes his children. They hate him; he's closed his home to them—I don't want to say anything. He's cold toward others with the most bitter sarcasm and irony that ever dwelt in a human being. Given his skilled hand and mind, these make him one of the most feared opponents and statesmen. (He's a member of the Reichstag.) He dissects people without mercy which I often find unjustifiable. (Now that I know him better, he is reason personified, pure—without feelings.) I can't quite figure out what power I have over him, that he's open and kind to me which he isn't even toward his own son. He regularly gives me little things, this or that. It might be his next article or something else—always with the phrase, either spoken or written: "With gratitude and respect." I don't know what I've done to deserve them (he always uses these two terms). I can't explain it to myself. For as I said, I've seen him humble, free of his façade. Sometimes I like him, sometimes I think it's enthusiasm I feel toward a great thinker. . . . I can only say that he has paid me more than I earned and has always wanted the best for me. I do like him, for I can't believe that he's acting out of self interest as his other assistants and various envious professors have tried to convince me. [14 March 1876]

It was mainly through Virchow, who in the 1870s began to concentrate his research on anthropology, that Alexander was introduced to the various learned societies of the day, especially the recently founded Society for Anthropology, Ethnography and Pre-History in Berlin. It was Virchow, the man of international repute, who encouraged Alexander's

dreams, who opened doors abroad for him, who suggested and secured funding for the polar expedition that Alexander undertook in 1875. It was Virchow who told him to enter the academic competition described below. It was Virchow who sent off notes describing Alexander's work to *Nature*, the leading international scientific journal (still published in Britain today). It was Virchow, together with Hartmann and Professor du Bois-Reymond of the Berlin Academy of Sciences, who gave him the opportunity to give lectures on the findings from his polar trip and to print his papers in respected learned journals.

Undoubtedly, Alexander's letters from July through October 1875, which cover his polar trip, are among the most interesting in the whole collection. Polar or Arctic exploration was still a dangerous primary area of international competition in exploration and science. Franz Josef Land, for example, had just been discovered by Austrians in 1872. Whether Alexander was aware of it or not, he was following in the footsteps of the great botanist Linné who went to Lapland to study its flora and inhabitants in the early 1700s. What is interesting is the parallel between the insights and delight of discovery found in Linné's diary from his journey and similar passages in Alexander's jottings.¹²

The twenty-one-year-old American's letters from the journey speak for themselves, of course, but a background passage sheds light on the enterprise:

Last week Prof. Hartmann asked me whether I wouldn't want to make a scientific trip next summer to the north coast of Europe. It would be to conduct investigations and studies and to collect things, microscopic and anatomical, for the Anthropological Society and the Royal Academy of Science. The Academy would cover some of the travel costs and the preparations. By selling articles and reports to various publications I could cover the other costs. Probably I'll be able to write a work about the discoveries with the help of the professor; this will be an opening for me to the scientific world. It's a great honor which few students have so early in life. I'll keep my great patron, A. von Humboldt, as a model in mind.
[29 January 1875]

The primary object of his patrons in financing the trip was that he gather all types of scientific data and samples, especially skulls and plaster casts of living Lapps for ethnological studies and for museums: "I've collected all the material around here that I could. [Earlier gathered materials were already sent back by sea.] There are four large crates filled with skulls of Lapps, bones, etc., together with a lot of plaster casts, in addition to all the zoological things I gathered. But now it's getting so

terribly cold up here that I have to think of heading to the south" [1 September 1875]. Once back in Berlin, he noted: "I really was lucky in the things I gathered for Virchow and the Anthropological Society. I was able to make the first plaster masks of living Laplanders—no one had done that so far—and besides I got a lot of valuable Lapp crania and skeletons" [26 October 1875].

Given his successful trip and the high level of international interest in the polar region, it is not surprising that he was approached soon after his return to Berlin about conducting future expeditions. But financial pressures and the desire to finish his medical studies made him temporarily abandon any thoughts of further scientific journeys of exploration. He did, though, manage to publish several articles in German for the society that had helped finance his trip.¹³ He also arranged a visit home in the fall of 1876, which was financed by lectures on the polar trip. He gave talks about his adventures and his findings in British and American cities on his way back to Minnesota. And while at home, he collected plaster casts and artifacts from the Lakota Indians. These he intended to sell to museums upon his return to Europe. His visit to the Lakota also resulted in another published article in Germany.¹⁴

Given his record of academic success, it is not surprising that Alexander took part in the university's research competition in 1876. At the end of each school year in August, the rector of the university would announce research questions for students to work on in each of the four colleges during the coming year. Interested students were to submit papers documenting their solutions to the problem posed. The following May, when all entries had been submitted, they were turned over to a jury of faculty members to see what awards should be made. During the final convocation of the academic year, winners, if any, were announced. But Alexander best describes his own great day:

At the end of this, the decisions of the contest judges were announced in Latin. First came the award of the theological faculty . . . then the school of law . . . then medicine. The decision for one question was read, and then came the main question to which I had submitted a written response. The rector paused when he reached this point; all listened intently. Then there resounded in clear words which I will never forget—the Greek motto which my paper bore: "PANTA LITHON KINEI" [he leaves no stone unturned; eds.]. This paper was to receive the first prize with all honors (cum summa laudae [sic]) and a gold medallion—an award *never bestowed before*. I turned red from head to foot as everybody listened attentively for the name of the winner. Until now the name had been kept a secret and lay in a sealed envelope at the front of

the hall. Next two worthy gentlemen stepped forward, tore open the envelop, took out the folded paper, and ceremoniously handed it over to the rector. He looked at it a few seconds in absolute silence. Then he looked up, and I heard my *name ring throughout the hall*. Everyone turned to the one named since I knew many of those present, and I felt as though the whole world was looking at me. I heard a whispering pass along the hall. I tried not to show my own excitement by just staring straight ahead. After this the other results were announced, and a chorale was sung at the conclusion of the ceremony. The rector came straight down from the podium and congratulated me in person. Then the professors came and surrounded me and shook my hand. You can imagine, dear Parents, how I felt. I was completely surprised. I had hoped perhaps for a small prize but expected nothing more. That I got the highest award and the medallion—which was awarded for the first time—was too much. To be *the first American* who was so distinguished by this faculty, and not only that but *the first among the Germans themselves* was more than I dared hope for or than I deserved. After it was all over, old Professor Reichert came to me and gave me one of his bearhugs and a kiss. Then he ran down the hall to the museum and shouted there to his assistants: "*The Horck*," as he calls me, "*The Horck got the medallion*." He was as delighted as if he had received the medal himself. [After 3 August 1876]

Archives at the Humboldt University testify to the awarding of twenty-five gold ducats for the first time. A copy of Alexander's study in the medical history library of the U.S. Surgeon General's office shows that Alexander was able to rework his paper into a dissertation for his M.D. degree the following year. Incidentally, he was the first American to graduate in medicine from Berlin.

The Latin saying "nomen atque omen" (a name and an omen, too), seems fitting in the case of young Alexander Vander Horck. Not only did he set out to master the world of science, but his quest took him to three continents. His real model, though, was not Alexander the Great but rather Alexander von Humboldt (1769-1859). The great explorer scientist whose name graces everything in the Americas from glacier to ocean current is little remembered today.¹⁵ But the name and image of Alexander von Humboldt, the original proponent of earth sciences and the first ecologist, were the symbol and icon for science in their day that Einstein's have become in the twentieth century. In all likelihood, Alexander Vander Horck was christened in honor of Humboldt. It is

certain that under Dr. Folwell at the University of Minnesota the young man became aware of the deeds and ideals of his famous namesake. And that influenced his choice of the Friedrich Wilhelms University in Berlin for his professional studies. There Wilhelm von Humboldt, as was noted above, had created the modern research university; there Alexander von Humboldt had returned in the 1820s to teach and to organize the first international scientific conferences after his explorations and publications abroad. And there it was that scientists had replaced philosophers and were vigorously expanding and synthesizing primary research findings by mid-century. Alexander noted that Professor Reichert believed medicine was the practical field for synthesizing the findings of the natural sciences and its practitioners were the best trained to lead the type of exploration that Alexander von Humboldt's work inspired [letter of 15 November 1874].

Alexander Vander Horck was a typical nineteenth-century scientist, freethinker and agnostic. Many of his letters elaborate on his beliefs. But they also chronicle the development of a personal cult, a secular reverence for the person and ideals of Alexander von Humboldt. Each year on his own birthday in February and again on Humboldt's in September, the young American disciple went religiously to Humboldt's grave for a moment of meditation and dedication. The burial site is on the grounds of the Humboldt family villa, Schloß Tegel, in a secluded wooded area about eight miles from the university and the old center of Berlin. He describes an early visit:

The Sunday before last I took a walk to Schloss Tegel to visit Humboldt's grave. I went via Charlottenburg, a distance of 3 to 4 hours. Wonderful weather and excellent air. When I arrived, I found that the niece of Alexander, Frau von Buelow, was in, so I sent my card asking permission to view the villa. Without delay I was received most cordially and was allowed to see the whole building and was even given some breakfast. Then I received permission to take some leaves from the grave area as a souvenir. . . . Enclosed are some leaves from his grave. . . . The family plot was surrounded by an iron fence. In the middle there's a 30 or 40 foot column surmounted by the figure of Hope. [13 June 1875]

Alexander's initial contact with the elderly Princess von Bülow resulted in his being included in the annual family memorial in honor of Alexander von Humboldt. She must have seen something of her uncle in this young American who bore his name. Supposedly, it was at her suggestion and with her approval that Alexander Vander Horck officially

assumed the middle name "von Humboldt" in honor of his patron and as a sign of his determination to carry on in his footsteps.

Alexander's final year and a half in Berlin were busy interning and studying for his final medical examination in 1877, and scrambling for money to pay the high graduation fees. Once through the examinations and with his thesis in ophthalmology defended, he worked long hours at the public hospital, the Charité, gaining both experience and money for his departure from Berlin. The following letter fragment gives some idea of the new doctor's life:

[Fragment letter] . . . and come daily to the clinic to be treated. I write all the prescriptions, notes, etc. —as you can judge from my handwriting and signature. (From Oct. 22nd through Nov. 10th, I wrote over 600 of these and entered the patients in the records of the institute—so I'm really kept busy.) In addition there are operations. Langenbeck is like a father—friendly, amiable, and well known for his helpful and pleasant manner. There is a great number of sick people who show up daily (including those at the Polyclinic, the yearly count is c. 14-15,000), an enormous crowd. So I am learning an unbelievable amount since I personally see and examine each case. I've specialized in surgery and ophthalmology and spend all my time at this. [After 10 November 1877]

Finally in the spring of 1878, with the second-hand blessing of his great namesake Humboldt and the fatherly farewell of his academic mentor Virchow, Alexander set forth from Berlin to conquer the worlds of science and medicine. The worsening worldwide economic crisis, however, had prompted a drastic change in his plans. Originally, he was to return home to set up practice and to conduct research. Instead he opted for specialized practice in diseases of the eye in China where others from Berlin had gained quick fortunes treating the wealthy in that country so deprived of modern practitioners. Though distracted by an immediate need to earn money, still Alexander left with the promise of support for his future explorations from his influential advocates at the Berlin Academy of Sciences. Trained in the new field of ethnology, he hoped while in the orient to be able to prove the Asian origins of the Native Americans by tracing their suspected migration routes.

But once he arrived in Hong Kong, he found himself serving as superintendent of the civil hospital in that city since a replacement for a British doctor on home leave was urgently needed and Alexander had had experience in the public hospital of Berlin. Four years later in 1882, Alexander married a wealthy young German baroness, a widow who had plantations in Sumatra and a residence in Delhi. Two daughters were

born to the union; but after ten years, the marriage ended in divorce. This was probably due to Alexander's ability to go through the widow's wealth. Pages, for example, from an old article describe in great detail the grandeur of Dr. Vander Horck's 245-by-54-foot yacht, *Sunflower*.¹⁶ Though years of elegant living in the Far East seem to have distracted Alexander from his original dedication, the article states the ship was, among other things, fully outfitted for scientific exploration.

From 1892 on, Alexander's lonely years were spent in India and Singapore where he became concerned with health care for the poor. His final days seem beclouded, taken up with mystical preoccupations. Though he reportedly only visited home once after leaving for the Far East, still he was proclaimed a native son upon his death. When British authorities notified his family of his death, *The Minneapolis Journal* for 12 November 1912 proclaimed: "NOTED MINNEAPOLIS SCIENTIST IS DEAD; Belated News of Dr. Alexander von H. Vanderhorck's Death in Singapore Arrives."

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Notes

¹ Karl Vander Horck, professor emeritus of education at the University of Minnesota, Duluth, came into possession of the letters while doing work on family history. The original materials, although carefully preserved by four generations of family members, were in a chaotic state. Many sheets were clipped together without any meaningful affinity. The paper was often brittle with writing on both sides that had bled through; in other letters, the ink was faded; the handwriting frequently was cramped or scrawled. The collection amounted to one giant jigsaw puzzle that had to be pieced together based on internal evidence, writing style, paper similarity, contextual continuity, etc. All but two scraps were finally worked into the resulting collection of translated letters. This article is limited to excerpts from passages pertaining to university and student life in Berlin of the 1870s. No letters of response from others were found.

² "Forty-eighter" refers to those German students and burghers who had supported liberal, political reforms during the Revolution of 1848. After repression set in, many immigrated to the United States.

³ Unfortunately, Minneapolis school records from this early period were destroyed by fire. Also early records of regents' meetings at the University of Minnesota are incomplete. The reporting of both events is based upon family recall and Alexander's own letters.

⁴ The schedule is reproduced in: E. Bird Johnson, *Forty Years of the University of Minnesota* (Minneapolis: The General Alumni Association, 1910), 27.

⁵ Folwell (1833-1929) earned his A.B., A.M. and LL. D. degrees from Hobart College in New York state. He taught languages at Ovid Academy for a year, then mathematics at Hobart (1858-60) before his year of study in Berlin in 1860-61. He served in the Civil War and then turned to business in Ohio from 1865-69, where he also taught mathematics at Kenyon College. Called to the University of Minnesota in 1869 to teach mathematics, he served 1869-84 as president and later as professor of political science from 1875-1907 and

president emeritus 1907 until his death in 1929. Information from: *Who Was Who in America*, Volume I—1897-1942 (Chicago: Marquis, 1963), 410, and Johnson, 37.

⁶ Direct quotations from the letters throughout this paper are indicated simply by the date given in brackets since only a family edition exists of the translated full correspondence. See n. 1.

⁷ John Vander Horck, a founder in the 1880s and president of the Minnesota College Hospital in Minneapolis, joined with the directors of the St. Paul Medical College in offering their charters to the new University of Minnesota department of medicine to form the University College of Medicine in 1888. Dr. Perry H. Millard, first dean of the college, later credited John Vander Horck with being the major force in the successful merger. See among others: Theodore C. Blegen, *Minnesota, a History of the State* (Minneapolis: U. of Minnesota Press, 1963), 443. John Vander Horck's plans for his sons were fulfilled by Alexander's younger brother Max. After finishing a medical degree in the United States, Max spent nearly three years of postgraduate study in Vienna, Prague and Berlin before returning to a position as the first dermatologist on the faculty of the new College of Medicine at the University of Minnesota where he served from 1888 until his death in 1911.

⁸ Facts and data on Bismarck's Berlin in the 1870s were gleaned from the vast Bismarck literature and from Colin McEvedy, "Bismarck," in *The Macmillan World History Factfinder* (New York: 1984), 156-59.

⁹ John Vander Horck's business ventures were severely affected by the economic depression of the 1870s. Eventually through his war service and political connections, he was appointed post trader at Fort Sisseton (earlier Fort Wadsworth) in the Dakota Territory where he recouped his fortunes over a nine-year period (1877-86).

¹⁰ All data on the Friedrich Wilhelms University in the 1870s were found in the archives of the Humboldt University in 1987. These include matriculation records, addresses of students, course schedules, records of degrees and awards granted. Those pertinent to Alexander—his M.D. degree and academic prize—were photographed by Karl Vander Horck at that time. Also consulted: Johannes Asen, ed., *Gesamtverzeichnis des Lehrkörpers der Universität Berlin*, vol. 1, 1810-1945 (Leipzig: Otto Harrassowitz, 1955).

¹¹ Probably the best English biography of Virchow still is that by Erwin Heinz Ackerknecht, *Rudolf Virchow: Doctor, Statesman, Anthropologist* (Madison: University of Wisconsin Press, 1953). The use of Virchow's name and the abuse of his work—especially in craniology and the gathering of statistical data on the general population—by racist scientists during the Nazi era have distorted his reputation. Long before their day, he himself noted that his very name and appearance showed he certainly was neither German nor Nordic. A recent book—Byron A. Boyd, *Rudolf Virchow: The Scientist as Citizen* (New York: Garland, 1991)—suggests the distortions of an earlier day have been corrected.

¹² Interesting parallels are found in a 1967 essay by the Austrian author, H. C. Artmann, that is based on Linné's journals: "Carl von Linné: Lappländische Reise," *The Best of H. C. Artmann*, 3d ed. (Frankfurt: Suhrkamp 245, 1980), 371-76.

¹³ Within a short time after his return to Berlin, Alexander managed to write up his notes, give several talks at learned societies and get his work published. Two examples are: "Reise nach dem Polarmeer und über die Bewohner der Nordküste," *Zeitschrift für Ethnologie* 8.6 (January 1876), 25 pp.; and "The Physical Condition and Distinctive Characteristics of the Lapplanders," *Journal of the Royal Anthropological Institute* 6 (London, 1877): 316-23. Of interest is the fact that the British journal *Nature* included an entry on his polar trip (and later announced his intended research in China). *Nature* 15 (November 1876 to April 1877): 245-46, under the date 11 January 1877, contains the following:

In the last Session of the Berlin *Anthropologische Gesellschaft*, Prof. Virchow stated that the intrepid young traveller, Herr v. Horn von der Horck [sic], is at present in the camps of the war-like Sioux Indians, busily engaged in obtaining plaster casts for craniological studies. The printed record of v. d. Horck's journey of

last summer to the Polar Sea, has just appeared in Germany, and contains much of value written in a very sprightly style. During the first half of the journey zoological and geographical ends were kept in view. On the return trip through Lapland to the Gulf of Bothnia, the expedition assumed an almost exclusively anthropological character. Enormous collection of bones and more especially of skulls were made, and a large number of masks were obtained from the present inhabitants of Lapland. So extensive and complete are these results, that Prof. Virchow regards them as more valuable for the study of Scandinavian craniology than the combined collections of European museums outside of the Scandinavian countries themselves. The principal geographical result of the journey was the establishment of the fact that a continuous water communication exists between the Polar Sea and the Gulf of Bothnia. On the summit of the watershed between these bodies of water, the lake Wawolo Lampi lays at a height of 800-900 feet above the level of the sea. Two rivers flow from this, one to the north, emptying into the Ivallo, and the other to the south, emptying into the Kititui. Frequent cascades and rapids render this waterway useless for purposes of navigation.

¹⁴ "Über Sioux- und Chippeway-Indianer," *Zeitschrift für Ethnologie* 9 (May 1877): 229-38. Letters home suggest he did sell off some plaster casts as well as Native American artifacts to finance his final year of study and examinations. For example, several calumets and Ojibway birchbark items in the North American collection of the Dahlem Museum in Berlin are attributed to Alexander Vander Horck and were seen by the author and photographed by Karl Vander Horck in 1987. The book—Horst Hartmann, *Die Plains- und Prärieindianer Nordamerikas* (Berlin: Museum für Völkerkunde, 1979), 347, 350—also contains photographs of museum items collected by Alexander.

¹⁵ Alexander von Humboldt was the classic naturalist explorer. After time spent in mining and the study of biology, he sold to his brother Wilhelm his share in their maternal inheritance to finance an expedition to Latin America which lasted from 1799 to 1804. Together with the sketch artist Bonpland, he measured, cataloged, collected and surveyed the flora, fauna, geology, geography and waterways encountered from the tropical Orinoco basin, to Cuba, to the Andes and then across Mexico. After paying Thomas Jefferson a courtesy visit, Humboldt returned to Paris where he spent years publishing his findings. Among the many Humboldt imitators, of special interest to Midwesterners, was Prince Maximilian von Wied. After a frustrating expedition to Brazil, he came with the Swiss artist Karl Bodmer to the United States and spent 1833-34 on the Upper Missouri River recording in word and print the life of the Mandan.

¹⁶ As with so many other trails in Alexander's life, documentation is not available for this article. Only occasional citations could be found for his years in the orient as records in both Hong Kong and Singapore were destroyed during World War II. What is in hand regarding the *Sunflower* is a photocopy of double-column pages (214-17) of an article from around 1890, entitled "The Yacht 'Sunflower.'" The edges of the original have doodles matching those on other letters from Alexander.