

SVEN HEDIN



GRAND CANYON

An English Translation of the Original 1925 Edition

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An English Translation

edited by Earle E. Spamer



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An English translation of
Sven Hedin, *Grand Canyon* (Albert Bonniers Förlag, Stockholm, 1925), published in Swedish

Translation largely produced using Google Translate, <https://translate.google.com/>
edited by Earle E. Spamer

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COVER ILLUSTRATION. Watercolor by Sven Hedin, 1923, "Fran Navaho Point efter solnedgången" (From Navaho Point after sunset), facing p. 128 in Hedin's 1925 edition. It is a view he painted while at the point also called Desert View (the latter name was formally adopted in 1932).

FRONTISPIECE. "Sven Hedin", painting in oil by Carl Emil Österman, 1923, the same year as in which Hedin visited the Grand Canyon. Credit to *Centrum för vetenskapshistoria vid Kungl. Vetenskapsakademien* (Center for History of Sciences, The Royal Swedish Academy of Sciences), Lilla Frescativägen 4A, P.O. Box 50005, SE-104 05 Stockholm, Sweden. Image obtained from Wikipedia Commons, August 16, 2022: https://commons.wikimedia.org/wiki/File:Sven_Hedin_by_Carl_Emil_%C3%96sterman_1923.jpg. Licensed under the [Creative Commons Attribution 2.5 Generic](https://creativecommons.org/licenses/by/2.5/) license.

BACK COVER ILLUSTRATION. Watercolor by Sven Hedin, 1923, "Deva, Brahma och Zoroaster templen från Bright Angel Point" (Deva, Brahma and Zoroaster temples from Bright Angel Point), facing p. 224 in Hedin's 1925 edition. It is a view he painted while at Bright Angel Point.

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Editions of Sven Hedin's *Grand Canyon*

- 1925 *Grand Canyon*. Albert Bonniers Förlag (Stockholm). [In Swedish.]
- 1926 *Gran Cañon. Mein Besuch im amerikanischen Wunderland*. F. A. Brockhaus (Leipzig). [In German. Translation: *Grand Canyon: My Visit to the American Wonderland*.] Also a 2nd edition, 1927.
- 1928 *Восьмое Чудо Света. Большой Каньон*. (С. П. Кублицкой-Пиоттух [translator].) Государственное Издательство (Москва и Ленинград). [In Russian. Author's name in Cyrillic orthography: Свен Хедин. The publisher is most often cited in abbreviated format, "Гос. изд-во".]
- TRANSLITERATION
Vos'moe chudo sveta. Bol'shoĭ Kan'on. (S. P. Kublitskoĭ-Piottukh [translator].) Gosudarstvennoye Izdatel'stvo (Moskva i Leningrad).
- TRANSLATION
The Eighth Wonder of the World. Grand Canyon. (S. P. Kublitskoy-Piottukh, translator). State Publishing House (Moscow and Leningrad).
- 2022 *Grand Canyon. An English Translation*. Edited by Earle E. Spamer. Raven's Perch Media (Philadelphia). [Electronic document, <https://ravensperch.org>.]

INTRODUCTION TO THE TRANSLATION

SVEN ANDERS HEDIN (1865–1952) was a Swedish adventurer best known for his explorations across the Asian continent and for a tumultuous professional life, all of which is beyond the scope of this book. The publications stemming from his explorations are numerous, and he was also widely known for his popular travelogue for young readers, *Från Pol till Pol* (“From Pole to Pole,” published in 1911) that was translated into many languages. But less well known is the entire book that he wrote about his three-week visit to the Grand Canyon in the summer of 1923, based on letters he had sent to his mother. It was published first in Swedish in 1925 with the simple title, *Grand Canyon*; today this is a scarce volume in the antiquarian book market. It was translated into German in 1926 and Russian in 1928. It never was translated into English, until now.

Hedin’s trip across America was framed around lectures and visits to academic institutions, although it seems that his itinerary was neither demanding nor one that required particular punctuality. He actually was en route to China, Mongolia and Russia, but he was thwarted by political events in reaching his China objectives. In America, we learn here, the famous explorer unexpectedly received the VIP treatment from the Santa Fe Railway and, at Grand Canyon, from the National Park Service and the Santa Fe concessioners there, which appear to have made possible a longer than expected, engaging stay at the canyon—and thus also this book.

He begins *Grand Canyon* with the pleasure of being given a free pass on the Santa Fe Railway and being accompanied by managerial staff from the railroad. He spends some time in describing his trip across the country, taking particular note of the flooding of rivers, geography, and various headlines in newspapers that were received along the line. At the Grand Canyon, he had free accommodation at the Santa Fe’s top-class El Tovar Hotel (although he expressed displeasure with the hotel’s ground plan).

He was also courted and conducted around the South Rim by National Park Service personnel and the Santa Fe's management. Leisure times included dining and chatting with all those who were in charge, including the park's superintendent, Walter W. Crosby.

At first he was taken on a guided tour to the several usual viewpoints west of Grand Canyon village, then onward to the east to Grand View. He went down into the canyon to stay for a couple of days at the Santa Fe's tourist lodgings, Hermit Camp, sequestered down in Hermit Canyon. As part of the VIP treatment, one night while at Hermit Camp he was treated to specially arranged Hopi Indian dances farther down in the Hermit gorge, around a blazing fire. The Santa Fe people had sent down—actually, they ran down the trail—some of the dancers who had just performed for tourists at Hopi House. (The Hopi rode mules back to the rim the next day.) During his stay at Hermit Camp, Hedin also went down to the Colorado River.

Back on the rim, Hedin was driven to Desert View (Navaho Point in those days) by the Park Service's very own "mule," Miner Tillotson (who did everything at one time or another, eventually even becoming the park's superintendent). Hedin was left by himself in a cabin there, where he gazed, and painted, and gazed some more. The next day he was invaded by noisy tourists in a bus, annoyed by their peering over his shoulder while he painted, and was mightily pleased with the silence following their departure.

An adventuresome trip westward to remote Havasupai Point concluded his South Rim expeditions.

Hedin had expected then to leave the canyon for Los Angeles because he had been told that the South Rim views were superior to those of the North Rim. But against such opinions he was convinced by "a gentleman" to go to the North Rim. He arranged with the Santa Fe people to be conducted across the canyon to Wylie Way Camp, a small, independent tourist camp on the North Rim, and had his luggage sent onward by rail to Salt Lake City, to which city he would then head by car and from where he could proceed to the west coast.

With a Santa Fe concessioner's "cowboy," Sandy McLean, Hedin descended Bright Angel Trail on a mule to Indian Garden. After crossing the older version of the Kaibab Bridge, he was put up at Phantom Ranch, then newly completed by the Santa Fe, but he was not particularly enamored with it. Phantom Ranch was appealing, he said, but it had a "covered wagon" feel so he moved on the next day to camp out at Ribbon Falls. While at the ranch, though, he was interested in the work of the U.S. Geological Survey's river-gauge monitor, J. W. Johnson.

Hedin and MacLean rode on up the sketchy trail to the head of Bright Angel Canyon and looped back southwestward to Wylie Way Camp, perched by Bright Angel Point. Accommodated there by the Thomas McKee family, who ran the camp during the summer seasons, Hedin spent time soaking in the ambiance and lore of the Kaibab. Then he went on his final, grand expedition to Cape Royal.

All the while — everywhere — Hedin sketched in pencil and painted with watercolors, products of which he included in his *Grand Canyon*. His art work — particularly the jarring colors of his watercolor scenes — need time to grow into. He purposely used his own creations to illustrate the book, turning down free photographs offered by the Santa Fe because the pictures didn't offer the same sense—he said they lacked soul. In fact, when one compares his narrations of colors in the scenes he wondered over, they tend to come into the light just that way through his brush.

His syntax and grammar seem awkward, despite verging on the poetic, though that is less attributable to the translation from Swedish than to the fact that Hedin's final text had been edited by him from observations, descriptions and thoughts included in letters that he had written to his mother. Thus, more than crafting a stringently produced travelogue, he relies on a more relaxed narrative style, one which is almost a train of thought, that may also account for the run-on paragraphs that sometimes hop around their focus. His writing style also betrays an academic heaviness, which he seems to try to smooth out for the benefit of his mother. Much of the translation, though, is intact, preserving the sense of the original even if it seems graceless. In fairness, some of his remarks are reflective, even endearing; these are shining points in his letters. At the least, we readers of English now know about some of Hedin's activities and his thoughts while at the canyon; we learn about his experiences and

interactions with people there; and, in the end, we even may discover a few new interesting details about what transpired among the tourists who flocked to the canyon in those days.

Still, Hedin's text is larded with all-too-frequent references to the cardinal directions; and more bothersome are his tediously repetitive recitations of the names of geographical features and their elevations. To these he melds an ample, subtly detailed, color palette. He means, of course, to provide word-pictures of the scenes before him; but here, as with virtually every other person who has written their descriptions of the canyon — though mostly not at such length as a book — their recreation in the mind's eye of the reader can at best be only poor. He admits as much, too, that "trying to give a concept of the Grand Canyon with words alone is, as I have emphasized several times, completely hopeless."

As for the geographical nomenclature, Hedin likely presumed that the specially highlighted map published in his book would help sort out the positions of the names that thoroughly salt the text. It does — though the views really can only be understandably labeled in person. He perhaps even thought that in some limited measure his illustrations would help. They do — insofar as they express some of the moods Hedin experienced; but alas, the reader could also have benefited from the photographs that he refused.

Much of the book is like a lecture, but we lack the speaker's pointer and its accompanying narration that would engage the audience. He must have had a compass with him, too — the explorer in him — as in many places he records the directions of his views by degrees from north. And he insistently shows some need to keep track of the time on his watch, and the air temperature — to the tenth of a degree. The world adventurer, widely published in scientific and geographical circles, probably was so used to this sort of supporting information that he was only carrying forward as usual, even though he was writing to his mother. But he was in fact continuing a forty-year habit of corresponding to his parents from the field. So, in 1923 such rambling technical details about the Grand Canyon landscapes were probably appreciatively absorbed as only a mother could of her cultured child's indulgences.

Yet despite all this, there are many passages throughout his book that convey delightfully personal experiences and observations. In many cases they are unique in the Grand Canyon literature; and so the book does win its usefulness to this genre.



The main purpose of this translation has been to make Hedin's work available for the first time in English, a century after its original publication.

The translation was created through the use of Google Translate online. One must agree with those who know, that there is no such thing as a word-for-word translation, that it is an art form responding to context and grammatical and other nuances. Google Translate is simply a "neural machine translation service" that takes on a sentence at a time, a service that which over time "learns" to construct better and more grammatically correct sentence structure and word selections.

But far from this being a simple transfer of results from Google Translate, this volume is the product also of judicious editing, first for sense, then when necessary using retranslations to avoid ridiculous synonymies introduced by the artificial translator. Conventional Swedish–English dictionaries have assisted, as also have other translation resources (for example, the helpful Swedish synonyms website, synonymer.se). Hedin's run-on, repetitive narrative style contributes to the stilted feel of the translation, too, which emphasizes the fact that a more elegant translation by someone who is fluent in both languages would produce a clearer text for readers in English, even though that would likely be at the expense of the mood and focus of his compositions for the woman he called "Mamma."

The text layout of this volume approximates that of Hedin's 1925 edition with regard to the layout of chapter titles, page enumeration, and so on; with the exception that his page size was 6 × 9 inches, totaling 297 pages, and the illustrations were interleaved throughout the text (see "Sven Hedin's Illustrations" herein). And as with the original edition, Roman pagination begins with 1 on what herein is the facsimile reproduction of Hedin's title-page.

Few attempts have been made in this translation to offer the kinds of editorial annotations that correct, update, or explain information that Hedin presented or about people that he mentions. To do so at length would have destroyed the main purpose of making his 1923 visit to the canyon available to English readers for the first time; it is not meant to be a studious critique of his work, best left for another time. This translation is meant to be read with Hedin as he travels through the canyon; another translation can be the one with which we may study Hedin.

At one point, we discover that his hosts at the Grand Canyon apparently never explained the origin of the many Classical names that have been applied to the geographical features of the canyon; the ones that were, as is well known, applied during Clarence E. Dutton's monumental survey that was published in 1882 as *Tertiary History of the Grand Cañon District*. Although Hedin mentions that he was familiar with this work, it was only for the fantastic illustrations drawn by William H. Holmes. Hedin obviously never had had the opportunity to enjoy Dutton's narrative, in English or otherwise. At the canyon, he decries the names of the temples and other features—put there, he says sarcastically, “God knows by what genius.” He thinks that they are “a pompous but otherwise arbitrary nomenclature, anything but genuine. One wonders why these names of the gods of the oldest religions have been tossed about each other right here, on American soil. On one and the same massif we find Odin, Thor and Freya in association with Vishnu, Krishna and Rama. The Egyptian divinities are nearest neighbors to China's great religious teachers. In no other part of the world has such a geographical act of baptism been undertaken with so little piety.”

This was not the limit of his opinions of Grand Canyon. At one point he had offered comments to a prospective Santa Fe architect, surmising, “The current hotel at El Tovar is about as bad as it gets in terms of the view.”

Most of his geographical terminology is not updated in this translation, in order to preserve his usages, although a few editorial comments are made where deemed appropriate. His capitalizations (or lack thereof) are retained, as are also his use of words or phrases within quotation marks, some of which were in English and others as devices of emphasis. His use of the diacritical mark in “Santa Fé” is retained.

Certain terms, unsuitable today, are retained in their translations; for example, Hedin's references to "negroes" and "redskins." The former were met aboard the train and refer of course to the porters who in those days were employed by the railways almost exclusively from among the African-American populace, who, even though they were in responsible positions, still were considered part of a "servant" class. He holds a more appreciative view of American Indian cultures, particularly of the Hopi, whom he pities for their embracing less spiritual ways of the Americans and for their having to rely on "tips" that condescending tourists would throw to them following dances at prescribed times outside Hopi House.

In his descriptions of the canyon's geology, Hedin rattles off the names of the rock layers as frequently as he does the geographical names—even unfortunately saying at one point, "although I have already mentioned the various formations, I am recapitulating them once again for the sake of better memory." Hedin was of course not a geologist nor apparently was he exposed to much formal geology. His geological discussions are derived from publications of the day, though they ramble and are presented in assorted ways. Most particularly he periodically credits the U.S. Geological Survey's Nelson Horatio Darton, who was consigned by the Fred Harvey company to create a detailed booklet on Grand Canyon's geological history, which was first published in 1917 as *Story of the Grand Canyon of Arizona: a Popular Illustrated Account of Its Rocks and Origin*. It was sold widely through Santa Fe/Fred Harvey outlets. By the time of Hedin's Grand Canyon visit, the booklet was already into its 7th edition. In light of the advances made in the past century towards understanding the canyon's stratigraphic and physiological histories both, one may now easily excuse many of Hedin's (and Darton's) geological misnomers.

SVEN HEDIN'S ILLUSTRATIONS

Hedin illustrated his *Grand Canyon* with pencil sketches and watercolors that he had made on the scene in 1923. All of the illustrations are reproduced with this translation.

Hedin was the first to admit, in his Introduction, “It is therefore presumptuous of me to illustrate my portrayal with my own sketches drawn and partly colored on the spot. But these pictures, which lack all artistic value, will, as I hope, may in someone facilitate the understanding of the text. I had permission to reproduce as many as I wanted of the numerous photographs handed to me at El Tovar. But the sketches have, in my opinion, an advantage over the photographic plates in that they reproduce personal impressions and an individual perception and thus possess a soul.”

Hedin's publisher placed illustrations in interleaved fashion throughout the text, although only some of them pertained to the text of the chapters in which they appeared. In this translation, because the text is reset, no attempt has been made to place the illustrations in the same relative positions. They are, however, kept in the same order but they are shown in groups at the ends of the chapters in which they originally appeared — again, with the caveat that not every illustration in a chapter pertains to the topic of that chapter.

The original legends of Hedin's illustrations appear in the images reproduced here. Below each of them is a translation, and a notation as to which page they appear in the 1925 volume.



ANNA HEDIN.

GRAND CANYON

AV

SVEN HEDIN



STOCKHOLM
ALBERT BONNIERS FÖRLAG

STOCKHOLM
ALB. BONNIERS BOKTRYCKERI 1925

Till
minnet av min älskade Mor

To
the memory of my beloved Mother

[Hedin's dedication, with translation here]

In warm summer days, and bright nights, filled with melancholy and longing after the heaviest and most painful divorce I have experienced in my life, I put the finishing touches to the unpretentious description of a country, which in natural beauty and in rare, gigantic splendor surpasses everything else on the earth.

During the weeks I spent two years ago in the Grand Canyon, I wrote a series of letters to my beloved Mother. It happened out of old habit — after all, I had been writing home to my parents for forty long years from Asia. Now the epistles from the New World flew across the sea. Not a day could come to an end without a few pages being written to Mamma. No one has followed my fortunes with a warmer and more alert interest than she. In her thoughts and prayers she has always been with me on the desolate, lonely roads. Now she was old, she had turned eighty-five years old, and only on the wings of her imagination and guided by my letters and sketches could she form an idea of the Grand Canyon. I knew I was making her happy by doing so, and so I wrote from the various campsites on the south and north rims and in the depths of the mighty valley, from El Tovar and Desert View, from Hermit Cabins and Phantom Ranch, from Altar Falls and Wylie Way Camp. I wrote of the roar of the Rio Colorado's vaulting waters, of the squeals of wild canyon donkeys in still, balmy nights, of the red glow of the temples and pagodas, which at sunset seemed raised by rubies and lit from within by volcanic eruptions — I wrote of the roar of the evening wind in the crowns of the pines and I put down a few pages as I returned to the tent after witnessing in dreams of the past and forever gone, the dance of the Hopi Indians around blazing fires.

The letters were therefore written on her behalf, and as I now hand them over in a revised and fuller form to other readers, I feel it a dear duty and a small thought to dedicate them to the most precious memory I own. Not even in this more elaborate form was my description of the Grand Canyon a stranger to my Mother. She had read

it with renewed interest and she longed to help me with the proofreading of this book as well, just like in the past for decades. But her strength was not enough, she could not wait. When summer was at its brightest over our country, she fell asleep smiling and happy as in the years of her life.

It was dark and empty. I had lost my best friend, a friend who gave me a world of love and loyalty and who never tired of forgiving my mistakes. I no longer had the right to feel like a child, I had become a generation older and heard, more clearly than ever, the whistling of the wings of time. But the bright and beloved memory she has bequeathed to me is an imperishable wealth and to her, who for sixty years was my guardian angel, who during my childhood years carried me in her arms and then until her last moment with tireless patience watched over me, encouraged me and been my support, I am in an immeasurable debt of gratitude.

Wherever my paths lead, I shall always see her bright image before me, meet the friendly look from her eyes and hear her voice. And if I am ever allowed to return to the Grand Canyon and come back to its otherworldly beauty, then I shall feel the memory of my first visit as a new bond of union with her. Then I will also think with sadness of the time when I was happy enough to write letters to my Mother by the roar of the Rio Colorado and in the red reflection of the sunset.

INTRODUCTION.

Even before I entertained a thought about the possibility of one day going to Asia, I dreamed of the Grand Canyon. A year before matriculation, I was given the task of copying in giant format the excellent color plates by W. H. Holmes, which illustrate C. E. Dutton's work: *Tertiary History of the Grand Canyon District*, 1882, for a lecture at the Geographical Society. My studies with Brögger at Stockholm University and in my bachelor's degree at Högbom in Uppsala also included a moderate knowledge of the Colorado Canyon's geology.

During my travels in Asia, which for decades now occupied my full attention, the thought of the great erosional valley of Arizona was pushed into the background, but never quite erased. When, in the course of 1922, I finally completed my work in Southern Tibet and needed a few months' rest, I decided to travel to America at the beginning of 1923 and to extend the trip at least to the Grand Canyon. In many of the cities of the East I gave lectures, visited scientific institutions and remarkable places and, of course, also came to Chicago. In this curious city I made the acquaintance of, among others, Count J. Minotto from Italy, now a naturalized American and using the democratic title of Mr. We met several times. Mr. Minotto was an outdoorsman and sportsman and keenly interested in all things called "exploration." With his young wife, *née* Swift, he had traveled widely and recently also had visited the Grand Canyon, which he loved with a passion. When he heard of my plans, he became eloquent and did everything to fuel my longing.

Once, at a banquet at Minotto's, I met a couple of gentlemen, employees of the Santa Fé company. Then the conversation moved unsolicited to the Grand Canyon, and Minotto, who was ready for jokes, thought the company should invite me as their guest for an extended visit to the place. The two gentlemen found the proposal good and would think about the matter. I myself could not take these festive discussions

seriously, and was therefore not a little surprised when the very next day a Mr. Birchfield in the company's service sought me out at the University Club, where, under the recommendation of our splendid consul, C. von Dardel, I was temporarily Commissioner. Mr. Birchfield showed me piles of photographs and asked me to visit Mr. William H. Simpson, Assistant General Passenger Agent, Atchison, Topeka & Santa Fé Railway, as soon as possible, who received his orders from higher quarters and could give me all the information I needed.

Great! I went to the company's headquarters, where I met the gentlemen who had the decision in their hands and who, with the greatest commitment on behalf of the company, asked me to be its guest in the Grand Canyon as long as I pleased to decide for myself. We agreed on three weeks. Cowboys, mules, cars, tents, hotels, provisions — in a word, everything would be at my disposal — I had only to command.

I mention this little episode so that in connection with it I also have the opportunity to express my heartfelt thanks to the board of the Santa Fé company for the great hospitality shown to me at El Tovar and during all the excursions I made from there. A prince could not have traveled under more pleasant conditions. Everyone was friendly and polite. My gratitude goes, in addition to the Board, especially to Messrs. Simpson, Birchfield, Kemp, Clarkson, Crosby, Petrosa, McKee, and Ford Harvey, and to Guides West, Tillotson, and MacLean.

It is true that even if the company had not invited me, I would have traveled anyway. But it would have become both more expensive and more difficult. All the American citizens I met between the Atlantic and the Pacific showered me with hospitality, but the culmination of everything I met along the way was still Santa Fé. With the name of this famous railroad company is connected the greatest and dearest memory I retain of the U. S. A.

It goes without saying that I traveled in the Grand Canyon as a tourist, not as an explorer. I couldn't bring anything new home with me. I just wanted to incorporate this — one of nature's greatest wonders — with my personal experience. In Asia, not least in southern Tibet and the Transhimalaya, I had traveled many hundreds of miles and everywhere been the first. And yet these regions, at least to some extent, had been

known for millennia and had been sung in ancient hymns by the people of India. Only in a couple of cases have I had followers — by the way, large areas of High Asia are crossed only by my routes.

How different are the conditions in the Grand Canyon! This erosional valley has been generally known to Europeans for little more than three hundred and eighty years, and yet it is now mapped and scientifically, especially geologically, investigated in detail by a whole line of eminent scientists.

The first to reach the edge, from which the gaze descends vertically to the bottom of an abyss, were the Spaniards. Under Coronado's command, they came up from Mexico to the plateau country, which they found to be an "arida zona," dry, barren region — Arizona. Chief among the Spanish pioneers, the Franciscan friar Fray Marcos de Niza traveled in 1539 and had wonderful things to tell after his return.

Encouraged by his words, Coronado [*sic*] himself, accompanied by his closest man, Tovar, in 1540 broke their way into Arizona. They were conquistadors, but entered into friendly relations and barter with the Indians, and heard, among other things, of a mighty river, which flowed through the country in the northwest. After reconnoitering was completed, Coronado sent a small force under the command of Cardenas to search for the said river. Cardenas found the vast body of water, which, because of its color, was called the Rio Colorado. He also became the discoverer of the Grand Canyon (Gran Cañon, the great tubular valley).

For a couple of centuries, the remote and desolate region was visited only by one or two Spaniards and seems to have been forgotten for a long time. Thereupon American trappers extended their wanderings to the deep valley. In 1824, General Ashley reached the Colorado River, but without touching the Grand Canyon. As part of the government's mission, the area was at once subject to investigation.

The first scientific exploration of the river was effected in 1869 by the energetic and daring Major J. W. Powell, who covered by boat the distance of a thousand miles from Green River City, Wyoming, to the mouth of the River Virgin, and repeated his enterprise in the winter of 1871–72. Among the countless, wild rapids, which later

cost many human lives, he managed and has written a book worth reading about his adventures.

Since in 1889 F. M. Brown died in a rapid, the following year his traveling companion Stanton continued the river journey all the way to the sea. We can also note the journeys made by Galloway (1896–97), Flavell (1896), Russel and Monnette [*sic*] (1907–1908), Stone (1909) and the Kolb brothers (1911). One of the latter two, Ellsworth L. Kolb, I met at El Tovar. His depiction of the long river journey, *Through the Grand Canyon from Wyoming to Mexico* (1920)¹, is as instructive as it is exciting. Their goal was to film and photograph. In 1922 and 1923, L. R. Freeman participated in the U. S. Geological Survey's expeditions to the Grand Canyon in order to investigate the possibility of regulating and controlling the lower course of the Colorado River by means of a dam in the upper canyon regions. In his book published last year, "Down the Grand Canyon", he describes the results obtained.

In recent years, a number of works, both scholarly and unscholarly, have been written about the Grand Canyon. It would be unnecessary to attempt to provide a bibliography of them here. I just want to mention two little books, which were my constant traveling companions: *Story of the Grand Canyon of Arizona, a popular illustrated account of its Rocks and Origin* by N. H. Darton, Geologist U.S. Geological Survey, which I often quote in the following, and *The Grand Canyon of the Colorado, Recurrent Studies in Impressions and Appearances* by John C. van Dyke, 1920, from which I borrowed some of the data given in the above historical overview.

The classic interpretation of the geological history of the Grand Canyon has been given to science by Newberry, Powell, Gilbert, Dutton and Holmes, to mention only the first and most famous scientists, whose works have since been cited in all geological handbooks in all the cultural languages of the world and consulted in the solution of many problems concerning faulting and other changes in the earth's crust, denudation and erosion on a gigantic scale.

According to W. M. Davis (*An Excursion to the Grand Canyon of the Colorado*), whose journey was made in 1900, Newberry (1857–58) found the Paleozoic strata

¹ Hedlin cites from a later printing of Kolb's 1914 book.

resting on crystalline beds of rock, and considered that the country was in earlier stages more abundantly watered than now. Powell, who in 1869 traveled through the Canyon and in 1870 on the northern plateau, addressed the problems of dislocations, faults, and folds. He was convinced of a long period of dry climate, because rock walls and canyon valleys would otherwise not be able to maintain their sharp shapes. Dutton, writing in 1880 and 1882, advocated the proposition that the whole area began to be uplifted during the early Tertiary period. He also established the geological dating of various changes in the earth's crust within the area in question. The denudation work of the Grand Canyon decomposes, according to him, into two cycles of erosion, the first of which took place in ancient times during a humid climate, while the latter followed during a dry space of time and in connection with an extensive uplift of the earth's crust, complicated by dislocations.

That the canyon valleys are so narrow is a phenomenon often explained by the dryness of the plateaus through which the Colorado River flows. Davis finds an explanation in the ancient elevation of the land by which the carving of the canyons began and in the density of the resistant deposits which now form the side walls of the canyon valleys. However, the history of the climate in the area is very uncertain. According to Davis, Powell's theory of a long-term dry phase is the most likely, because the Grand Canyon has been sheltered for so long by mountain ranges, which used to be higher than now, at the same time that the entire area was generally lower. It is very likely that the Grand Canyon area during the Ice Age was subject to heavy rainfall, but Davis considers it difficult to provide evidence for this. He believes that even such a climate as the present one is sufficient to explain the emergence of side ravines and small canyons. In such areas, erosion still continues, and the absence of vegetation has the effect that erosion proceeds more rapidly here than in regions with more abundant rainfall and more abundant vegetation.

Before the Grand Canyon began to erode in Pliocene time, the last stage of the Tertiary period, the deposits of five geological periods, Permian, Triassic, Jurassic, Cretaceous and Eocene, were carried away and obliterated from the plateau country. At El Tovar, Havasupai, Desert View, Wylie Way Camp — in a word, everywhere on the south and north rims of the Canyon, we are thus walking on the crest of the almost

horizontally layered coal formation [Cretaceous]. No less than 3,000 meters of mighty, younger formations, which formerly lay above the coal seams, are thus missing. Their abduction has been called "the great denudation." Six geological periods remain and lie exposed everywhere in the canyon walls, although two of them are fragmentary. The youngest that remains is the so-called Kaibab limestone, belonging to the coal formation. Below the characteristic vertical band of red rock, which contributes so much to the beauty of the valley depth, and is known by the name of Red Wall and belongs to the coal formation, three geological periods, Devonian, Silurian and Ordovician, are missing. Of the Devonian, however, there are scattered fragments. The Red Wall rests on Cambrian limestone, called the Tonto Group. On top of the Archaean primordial beds, granite, gneiss, etc., 4,000 meters of Algonkian or Precambrian deposits are absent, although fragments of these are found in some places under the names of the Unkar and Chuar groups.

You don't have to be a geologist to notice after a very short stay in the Grand Canyon that the sedimentary deposits, which have been exposed through this mighty incision in the earth's crust, have an almost horizontal and undisturbed position. The giant erosional furrow cuts down through the layers of the coal formation and then all the older deposits have been exposed by continued erosion right down to the granite, where the Rio Colorado now roars in the Inner Canyon or The Granite Gorge. When you find the horizontal layers undisturbed, you can therefore draw the conclusion that erosion is the only force that was able to bring about this tremendous intervention in the earth's crust. But the force of erosion has also had certain other factors to its aid. The fall of the river is quite steep, in that the height difference on a stretch of 217 English miles from the mouth of the Little Colorado River to the Grand Wash amounts to 500 meters. At the mouth of Hermit Creek the river is considered to possess a velocity of twenty English miles per hour. At such a speed, a compressed and concentrated body of water manages not only to carry sand and roll gravel in its bed, but also to move regular boulders. The Rio Colorado therefore has at its disposal a very effective abrasive material, which files, rubs, and erodes, in a word, its granite bed. When such excavation work has continued for millions and millions of years, day and night, winter and summer without a second's pause, it is not so difficult to

understand that the result in the completion of time, or in our own time, must be overwhelming, astonishing. Such a result can only be accomplished in a water-rich river, whose fall is strong and whose bed is filled with silt, sand, gravel, and boulders for grinding material — a river, which comes from a moist and rainy upland and flows through a dry plateau country. Such is the condition now and probably always has been, for otherwise mighty tributaries would have been formed, and in fact there are only a couple of such, one called the Little Colorado.

Neumayr points out that the Grand Canyon can also serve to give us a concept of the immense length of geological ages. To produce the chasm we see below us from the parapets and the open galleries of the forest around El Tovar, or in other words, to chisel out through very hard rocks a channel, which is 217 English miles long, 13 miles wide and 1 mile deep, the Colorado River has needed the space of time that lies between the Pliocene, the last stage of the Tertiary period, and our own time. Many millions of years are enclosed by this space of time. And these millions of years make up only a very small part of the geological books of time and of the earth's history, yes, a space of time which is so short that, according to Neumayr, the sea molluscs changed only insignificantly during that time and that the changes that took place barely covered half of the species. At the thought of such numbers and in front of such perspectives, man, if he is not contaminated by the plagues that ravage our time, becomes quiet and humble. When I first stepped to the rim of the Grand Canyon, I walked hat in hand — unconsciously and thoughtlessly, as if entering a temple built by human hands.

There are thus classic works on the country's geology. There are accounts of journeys made in the labyrinths of temples and pagodas, on the river and on the surrounding plateaus, and monographs based on a long stay in northern Arizona. My portrayal has none of the merits that are distinctive for such works. The time of three weeks I spent in the Grand Canyon was too short to permit a deep and thorough penetration into its secrets. Some Americans have become so enamored with Grand

Canyon that they return annually to its sight, just as the pious pilgrims of Tibet and India make pilgrimages to their sacred mountains and rivers. Such repetition of visits is the right method for those who really want to absorb the unforgettable sights of this valley, of which someone has said that it is not the eighth but the first wonder of the world. The ideal would be to settle down for a whole year at some point on the southern edge and to, day after day, bathe your soul in the sight of the passing of the seasons and the play of ever-changing lighting over the earth's most grandiose erosional valley.

My visit fell during the height of summer when the air is almost always clear and no storms rage. For lighting the warm season is undoubtedly the most favorable, especially towards evening when wonderful sculptures appear in all their changing and yet law-bound diversity and architecturally decorative richness, while the south-west and west-facing facades of temples, pagodas and pyramids are hit by the light of the setting sun and glow in intense red hues. And over the painting arches a sky as blue as the noblest turquoise from Nischapur.

In the latter half of July, the rainy season begins. Unfortunately, I could not wait for its arrival. But guided by the verbal descriptions given to me at El Tovar, I can understand that the passage of the watery cloud masses over Arizona is capable of conjuring effects of amazing sculptural beauty. It happens that the clouds come rolling through the Canyon's deep channels of erosion and that their surface resembles a raging sea or a rushing river of enormous dimensions. It also happens that the rainbow spans its bridge between the northern and southern rims, but despite its rare brilliance of color it hardly manages to surpass the play of variegated tones on the west-facing walls of Marble Canyon and the Palisades.

In winter, the coniferous forests on the crest of the northern and southern rims lie covered in snow, and it must be wonderful to human eyes when the blizzard whips its white fluttering flags out over the deep. Then it also happens on calm days that the considerable temperature difference that exists between the crest of the plateau and the 5,000 feet of valley depth below produces dense, milky-white mists, which fill the entire Canyon up to near its rim. The surface of the fog bank can be perfectly smooth and dimly lit. If one were to see a photograph taken on such an occasion, one would

be convinced that it represented a still lake set between low, rugged mountains and flat, wooded shores. At the northern edge one would see irregular peninsulas cut and torn by deep bays running out here and there, small rocky islands, which in reality are nothing but the topmost tops of the pagodas and pyramids. One would have no idea about the secrets of the deep. You would not believe that the island that rises out of the fog north of El Tovar is the tip of an almost free-standing block on the northern rim, which has the same volume and rock mass as Mt. Washington!

But neither does anyone, who like me only stays for a few summer weeks, have reason to complain about the lack of variety in the lighting. On the contrary, this changes during the morning, afternoon and evening hours with each passing minute. After the diffuse and sleeping tones of the early moments, the sun comes and brings the colors to new life. The shadows lie long to the west, and the wall of the Palisades disappears in darkness. The sun rises ever higher, the shadows shrink, and their black fields diminish. The entire Canyon is bathed in light. The day star declines and the dark spots grow again, now towards the east. The illuminated parts shift more and more into red, and at sunset they are an intense but light ruby red. Then the wall of the Palisades also burns in the same glowing tone. The red gradually fades and becomes deeper, and when the sun has sunk below the horizon, the relief, so finely nuanced just now, is obliterated; all details disappear, all colors have faded away, and a blue violet rises in the new night over the wall of the Palisades in the east.

In trying to depict all this wild and powerful beauty, one constantly has a sense of failure. You feel shackled and limited in terms of the means of expression, you cannot find the right words, time and time again you search for them in vain and do not come up with them. Enchanted and captivated by the magnificent nature, the enormous dimensions, the wealth of colors and shapes and by an overall effect, which makes the Grand Canyon so unlike anything you have seen on earth and will make you think you have been transported to another planet, you grope in vain for words and pictures — and find none. In this new world, one would need a new, richer and more powerful language.

Not even the mood, the psychic sensations one experiences, can be described. Day and night, a Sunday peace reigns over the Grand Canyon, and the silence is deeper

than that which reigns in the desert. When the sun was high, when one was down on the banks of the Colorado River, you felt the bedrock shake under the weight of the masses of water, and heard the granite corridor filled with a thunderous noise, amplified by a thousand-voiced echo. A few hours later, you sit in the evening light up there by the edge and know that you have the river five thousand feet below you, and perhaps even see a glimpse of its course. It is known that, as in the past, for millions of years, the raging masses of water, without rest or calm, continued their journey in longing for the sea, but not a sound penetrates to the edge. The silence is enigmatic, mysterious, almost oppressive. It is like being alone in a church one night, where you see nothing and hear nothing, but still know that you are surrounded by images of saints, pulpits, altarpieces, candelabras and tombs, but everything is silent and the soft organ is silent.

You get checked even with regard to the distances. Up top it is two Swedish miles² from edge to edge and the river is an English mile deep below me. A cone that falls from a yellow pine, which leans its crown over the abyss, does not come to rest until it has reached a slope a thousand or so feet below. An eagle hovering so close over the forest that he can touch the tops of the conifers with the tips of his wings, is in a few seconds after he has sailed out over the valley, five thousand feet above the ground.

You grasp everything with your eyes, but still don't understand it. You sit for hours every day and just look and look and search in vain for a solution to the riddles. More clearly than ever, one feels oneself as a speck of dust in the immeasurable realm of creation. "How small everything becomes," is a thought that imprints itself on one's soul. All joy and sorrow, all hopes and worries disappear without a trace. What do the five thousand years mean, over which the light reaches from the torches of historical research, compared to the immeasurable spaces of time, which in the temples and pagodas of the Grand Canyon are engraved the stories of their feats! Only night rules the Grand Canyon. Then darkness spreads its blanket over the old temple city, and the eternal stars remind us of distant worlds, against which are the wonders of

² In many places throughout the text Hedin makes references to Swedish miles (as opposed to English miles), which unit of measurement had been standardized by his time at exactly 10 kilometers.

Arizona, yes, the whole earth turns to a grain of dust in the starlight, the heart's anxiety is stilled, and the wanderer sinks into a feeling of infinite rest.

If anyone thinks that this book contains exaggerations, I would like to have said that one cannot exaggerate a depiction of the grandeur and power of the Grand Canyon. Whoever, after reading my book, goes to the valley of the Rio Colorado, will certainly say that my presentation was dull and colorless, and that it in no way comes up to reality. The only ones who have succeeded are the geologists, who leafed through the vast annals of stone, recorded numbers and measurements and petrographic and paleontological diagnoses. For the artists, the task has been hopeless; in color it has not succeeded in reproducing reality, its tones and vast dimensions. A poet would make a fool of himself if he sought to sing the Grand Canyon, and a composer could never surpass the only music suitable to its grandeur — the never-ceasing roar of the Rio Colorado.

It is therefore presumptuous of me to illustrate my portrayal with my own sketches drawn and partly colored on the spot. But these pictures, which lack all artistic value, will, as I hope, may in someone facilitate the understanding of the text. I had permission to reproduce as many as I wanted of the numerous photographs handed to me at El Tovar. But the sketches have, in my opinion, an advantage over the photographic plates in that they reproduce personal impressions and an individual perception and thus possess a soul. Anyone can illustrate a book with photographs, even ones that have been colored by hand and are for sale at El Tovar. They left me completely unmoved; I did not want them as a gift, but preferred to try to capture the Grand Canyon to the best of my ability with my own pen and brush. No one can be more aware than I of the shortcomings of these pictures.

And now we can move on to the letters, which I sent home to my Mother.

TOWARDS THE FAR WEST.

On Sunday, June 10, 1923, I left the beautiful and pleasant University Club in Chicago, and went down to the Illinois Central railroad station to take the train, which at 9:55 a.m. departed westward. It rained and felt cold and terrible in the middle of summer. The weather and the day of rest combined to make the streets desolate and empty. The heavy train rolls into the night. From the raised track you can look down on the countless cross streets. Electric lights glimpse diffusely through the rain and the white eyes of the cars shine in the darkness. But the bright spots are sparse, the big city disappears behind us, you crawl into your berth in the Pullman car and sleep while the train rolls through Illinois.

Unfortunately, the Mississippi is missed, which is crossed in pitch darkness and pouring rain. Most of the state of Missouri is also behind us before dawn. But at least we get to see the Missouri River and its mighty swirling masses of water in broad daylight. You settle down in the train's dining car, which doesn't go any farther than Kansas City. Even before you reach this town, a negro walks through the wagons and offers morning papers. They are full of lively and juicy descriptions of the terrible floods, which recently ravaged huge areas in the state of Arkansas. It is the Arkansas River, a tributary of the Mississippi, which crosses this state diagonally, and has now overflowed its banks and submerged the country. Inch-high, sensational headlines speak of accidents and devastation, of losses estimated in the millions of dollars and of the thousands of people who have had their homes destroyed and are homeless.

It has been raining all night and the sky still looks threatening. At 11:25 we arrive in Kansas City. You set your watch back an hour. At 12 it leaves again. At the last moment, a gentleman, as I expected, has boarded the train and settled down in the seat opposite mine. His name is R. Hunter Clarkson, and my friends in the Santa Fé

Company have arranged for us to be traveling companions to El Tovar. A more pleasant and knowledgeable travel companion cannot be imagined. Mr. Clarkson is also a Scotsman of Swedish descent. At the very beginning of what was for me a very instructive conversation, which was to last for several days, we got into the war, and it was refreshing to speak with a man who had such a sensible, humane and objective point of view as Mr. Clarkson. We found that once, namely in the summer of 1916, we had been very close to each other on one of the theaters of war. When, during my visit to Colonel Kress von Kressenstein at El Arisch, with a couple of Turkish officers, I made a car journey in the direction of Ismaïlia; Clarkson was in command of the battery at the latter place. Now he told us about the nocturnal patrols, which on horseback or on dromedaries were occasionally sent eastward through the desert, and we laughed heartily at the thought how easily it could have happened that my car had been cut off from retreat by a patrol, and I myself, as a prisoner, been driven to Clarkson's tent. He intimated that in such a case I would have been treated with the greatest consideration, not only by himself, but also by all the other English officers. But I assured him that I preferred to be in his hands on the Santa Fé Railroad than his prisoner at the Suez Canal.

However, we left Kansas City and saw the mighty Missouri disappear to the right. Over lush meadows and fields, between luxuriant groves and gardens, the train whizzes on through the state of Kansas to the west and west-southwest. Often the fields are under water and all the ditches are overflowing. On juicy pastures herds of horned cattle and sheep graze, and here and there huge herds of pigs bleat in the musty mud. The country is flat as a pancake. For long stretches you feel as if you are passing through a single, uninterrupted garden.

Our carriage is the last in the train, and from its rear platform we see the ever-disappearing, rather monotonous landscape and the railway track straight for mile after mile. But otherwise we sit on our comfortable sofas and talk. The carriage is full, but it never gets crowded — you have your seat and don't have to crowd with others. An advantage of these Pullman carriages is that the passengers form like a large family; if you have nothing else to do, you can observe your fellow passengers, their habits and occupations. And you have a clear view through the large windows in both

directions. If you travel in a carriage with a side corridor and in your own section, you can certainly be in peace, which can be advantageous for newly married couples, but you then only have a view to one side.

It is half past two when the train stops at Emporia for a half-hour lunch break. With the help of the telephone, the train staff informed the station's restaurant in time how many guests were coming. There will therefore be no rush, no grab-and-scramble meal. You walk calmly and quietly to your seat. It is set at small tables, eight at each. You get tomato soup, ham with vegetables, ice-cream, tea or coffee. Clarkson and I are so much better off than other travelers that we need not pay; he is an official with Santa Fé, I am the company's guest.

On all other railroads in the United States the dining car is used. But here, at Santa Fé, the feeding of travelers is arranged according to the same system that used to be used on all Swedish railways. It is believed that all the railroads in the United States will in time introduce this system, for it has been found that the restaurant cars on the trains always run at a loss. In 1922, the Pennsylvania Railroad lost \$50,000 on its dining cars. Serving at the stations, on the other hand, becomes an excellent business, because not only passengers on the trains, but also other travelers, not least those who pass through with cars, take their meals there.

These food breaks come as a pleasant interruption. Tea, coffee and other light refreshments can be obtained from the negroes in their carriage. But lunch and dinner are taken at the stations. Both the food, the freshness and the service benefit significantly from that. And a journey of a couple of days becomes less monotonous if you get to touch ice from time to time and "go ashore" at a couple of stations a day.

While we eat our lunch, Mr. Clarkson tells us that the Santa Fé Company was founded around 1845 and initially named itself after the Atchison Topeka line, two towns in northeastern Kansas. Now it is the world's largest railroad company, owning 12,700 miles of track. In 1866, Fred Harvey began to set up hotels and dining rooms along the company's railway lines. After his death in 1900, the business was taken over by his son, Ford Harvey, who now owns twenty-five large hotels and countless smaller restaurants. In 1922, thirteen million meals were served at these. It is thus a

large company, and a business, which has developed into a solid and first-class organization. Ford Harvey, who has more experience in his trade than any other in the United States, has been solicited to erect and operate hotels in New York and other cities, but to such temptations he declines, preferring to concentrate and develop his business on Santa Fé fairways and since he probably considers the twelve or fifteen million dollars he has already earned sufficient for his earthly needs. He pays a fee to the government for the right to operate the entire hotel and excursion business associated with the Grand Canyon, hospices, tourist cabins, trails, mules, horses, cowboys, staff, automobiles, etc. The Grand Canyon, like so many other areas, is a national park and belongs to the government. In what follows, it will be found that the guardianship of this nature's most magnificent and wonderful workshop could not have been entrusted to better hands than Ford Harvey's. I had the opportunity to meet him once at El Tovar and can assure you that he is also an unusually engaging man in person.

But the half hour is over, we go back to our places and roll on through the flooded country. Vast bodies of water, cloudy gray or brownish-yellow and with strong currents in narrow passages, spread out on either side. Trees, gardens, avenues and small groves stand in the middle of the water. In some areas, the flood has washed away the ripening crop. Where the land slopes everything has been washed away, plowed, sown, sprouted and seeded; but where the land, as is usually the case, is level, a lot can be saved. From time to time we pass a farm, whose owner no doubt watches the vagaries of the floodwater with concern. On the average the farms in this part of Kansas have an area of 650 acres, a size which in Europe would be considerable. Kansas was at one time the most wheat-producing state in America, indeed within its borders the soil yielded more wheat than all the other states combined. Wheat cultivation is still high, although barley is the most important cereal. Kansas City is also number one among the places from which agricultural implements are distributed; in this respect, the state ranks 23 percent higher than the next in order. The principal factories for agricultural implements are located in Chicago.

We travel on the northern line through Kansas because the southern, which is under water, is interrupted. But even on our line the train rushes hour after hour between flooded fields, and the sky is as gray as before. At Peabody we see a forest of oil

rigs just like in Balakhani on the Caspian Sea or south of Los Angeles in California and it smells of naphtha from afar. Then the human ranks thin — we can go long distances without seeing a person or a house. In Newton, which we pass in the early afternoon, Harvey owns a dairy and a barn with 270 cows. Although there are many such establishments also in Texas, New Mexico, Colorado, Arizona, and California, their yield of milk, butter, and cheese is only sufficient to cover one-twentieth of the needs of railroad restaurants, and the main production must be procured from elsewhere. Harvey's facilities in that way actually have the task of regulating and controlling the market.

In fresh and moist summer greenery, the flat land spreads endlessly on both sides like an ocean. The flooded areas decrease in size and become increasingly rare. A good while after dark, the train stops in Hutchinson for the meal break, and in a magnificent hall, far more food than an ordinary person eats is presented, all excellently prepared and accompanied by whole rivers of ice-water with crystal-clear blocks of ice in the glass. In the evening the track follows the Arkansas River above Dodge City and in the dark of night, after having set our watches back an hour, we cross the border between Kansas and Colorado. A friendly old gentleman from Texas presents me with a miniature Mexican hair hat with the famous name El Paso on the band. He sits in the laundry- and smoking room and tells his life story. When you then enter the middle aisle of the carriage, all the heavy curtains are drawn and you find your berth made up by the negro. If you have a "lower berth" in the middle of the carriage, the movement is smooth and pleasant. The road is well built and conscientiously maintained. In the flooded areas, however, it was seen that in places the water only had to rise two feet to reach the rails.

When the negro woke me at half past seven on June 12th with the information that we had thirty-five minutes to Trinidad, we had already passed La Junta and were hurtling southwest to the border of New Mexico. The day was brilliantly clear, the country level and desolate, herds of cattle grazing on the vast expanses, and when we stopped at Trinidad, we thought we had arrived at a veritable oasis in the wilderness. The station house, like most others in Colorado and New Mexico, is built in the Spanish-Mexican monastic style with Catholic arcades, aisles and courtyards as well

as intensely green lawns and lush trees. Above the gate reads the name of the Spanish conquistador, Cardenas, who was the first pioneering venturer in these regions. The small town has a neat schoolhouse and several other new buildings. A dozen Ford cars are waiting at the station. But the passengers only have a few steps to the restaurant, where breakfast awaits. We are 1,311 meters above sea level and the morning air therefore feels cool and fresh. During the course of the day, we will climb another thousand meters. I don't notice the thinning of the air — I've been through worse. But Clarkson says he feels it as shortness of breath and difficulty going up hills.

A first small hill arches its dome right next to the station, and when we leave Trinidad we immediately enter a hilly landscape consisting of solid rock, gravel and loose layers of soil. On many slopes grow mighty junipers. The greyish hills and ridges are green dotted with bushes, and some shine everywhere with fresh verdure, covered as they are with grass and herbs. The climb is already quite noticeable, and our locomotive has been helped by another, which pushes on from behind. A little further on, where the gradient has increased, a third locomotive is coupled in front of the first. They stagger and knock to get the heavy train up to the high plateau, and the movement becomes bumpy and uneven without being unpleasant. With occasional pines on the hillsides, we go in strong curves up through the valley, which brings us to the Raton pass. We pass a village with a Spanish church on a hill and a coal mine nearby and shortly afterwards another coal deposit.

We are in the southernmost regions of the Rockies and to the north we are offered from a couple of points an endlessly beautiful view of snow-capped peaks. On the south side of the Raton Tunnel, we have crossed the watershed between the Mississippi and the Rio Grande del Norte, and one of the two front locomotives is disconnected. Here we have reached the highest point during today's journey, or 2,319 meters and have thus climbed more than 2,000 meters from Chicago, where the height is 180 meters. Now it leads downhill in not too sharply winding valleys, where from time to time you see a bend in the excellent old country road to Santa Fé and the coast.

At a smaller station, the train is flooded with today's issue of "The Denver Post," and everyone takes in the big fat headlines about the ever-growing flood and the

accidents and losses it has brought [Hedin quotes in English]: “Twelve perish in floods that sweep three states. Five thousand homeless, scores of towns are inundated, Vast wheat [*sic*] acreage destroyed. Martial law [*sic*] is declared in Kansas flood districts” — and other equally sensational headlines over colorful depictions. In petit style at the front of the paper, some short messages from the Ruhr and about Curzon’s attempts to mediate are read. In a telegram, Pierre Loti’s death was announced two days earlier.

Thus fairly quickly one sucks the juice out of “The Denver Post,” and when that is done Clarkson and I return to our interrupted conversation about the endless expanses of the earth’s surface, which spread out on both sides and which belong to the State of New Mexico. My traveling companion also teases my excitement for the journey’s nearest goal, the Grand Canyon, and is himself curious about the impression I suppose to get from it. He regards the Grand Canyon with almost religious reverence and says that its landscape cannot be described with colors, words or tones. All who have tried it have failed. Countless painters have come there with whole rolls of huge canvases and all the colors of the rainbow in their tubes. But they soon found themselves faced with an irresolvable task and they turned back without paintings, hopeless and discouraged. He also encourages me with the prospect that the Grand Canyon cannot be digested in a few days, you have to live there for weeks before you begin to understand that what you see is reality and not a dream. The first days were spent in dumb amazement and breathless admiration. You just sit and gape and don’t notice how time flies. You feel like a poor little mosquito, like a dust mite, which is blown away by the wind. Everything that happens in the world, people’s occupations and ambitions and restless pursuit of money, the political battles and the struggle for perishable honors — everything seems ridiculous and small. Even such an affair as the world war shrinks into a trifling little episode, which one does not care to remember and which is not worth a thought. What does it matter in front of this gigantic wonder of the irresistible work of natural forces, that a few million tiny human insects have killed each other and what does it mean in front of the open chronicle-books of the geological ages on which side you stood for a fleeting second in eternity! At the Grand Canyon you become a philosopher, you become a new person, you become

refined and gain a beneficial and healthy certainty of your own smallness. After such preparations, it is no wonder that I await with growing excitement what is to come.

In an open and superficially rounded valley, surrounded by low hills, is the little town of Raton with its dark station house in the usual Catholic style. And then we sped on on soft gray-yellow ground, here and there varying in green, but without water in sight, across the desolate plateau country of northern New Mexico. The track runs to the south-southwest. To the northwest rises constantly a long range of mountains about 15 miles' distance, and over its crest a smaller chain of snow is seen farther away. Here the steam horse puffs through the district where the Indians formerly hunted buffalo. Even 50 years ago, huge herds of this royal animal grazed here. Now there is not a buffalo left. In Montana, a herd of 300 individuals is protected, in Colorado 5,000. In the same way it has happened or will soon happen with the other wild animals. The beautiful feline, the puma, which is called the mountain lion here, is now very rare. In the mountains, the brown, black, grizzly and cinnamon bears are decreasing in number. But, on the other hand, the coyote, a relative of the jackal, is common on the prairies.

Sometimes a small town or village is passed, and here and there fields spread out around a farm, where horses, cattle and sheep graze. It is some settler who earns his livelihood from the refreshed earth. The ground on the plateau crest is smooth or slightly undulating. For long stretches the desolation is interrupted only by some group of railway workers. The telegraph poles have two cross hangers with sixteen wires and green insulators. When you sit all day on the same Pullman sofa and look out the windows, you attach yourself to even the most insignificant things and observe everything. Negative observations are also made, for example, that only rarely does a car speed along the ancient country road, which before the construction of the railroad was the main traffic route between Kansas City and Santa Fé and which is said to be the oldest in the states. Probably, in ancient times it was a simple path, used by the Indians.

Here we speed without stopping past a small town called Springer, watered by a poor stream. Such small communities are sometimes seen as oases in the desert, which envelops us again with its enchanting monotony and infinity as soon as we

leave them. Water is their first condition of life, and where water is lacking one looks in vain for human societies. The farmers are also easily counted. But sheep, cattle and horses are often seen grazing herds. It is actually a country for sheep breeding that we pass through. Usually the undulations of the ground are imperceptible to the eye. But you sense them in the speed and the sound. We are at an altitude of around 1,525 meters. The distance between us and the mountains gradually grows. That blizzards can rage up here on the plateau is betrayed by snow fences erected by vertically placed or horizontally laid planks.

Here and there a “mesa” or hill rises above the flat land, either cone- or pyramid-shaped, or the more wider ones are provided with a flat, tabular crest. This landscape form is typical of New Mexico. The engineers had an easy job when they laid out this railway. On long stretches there is no gravel bank and no ditches and only rarely a small bridge.

In the Valmora valley, the terrain becomes stony; solid rock and boulders on both sides, pines and grass on the slopes, water in a small trickle. At some point the path cuts through yellow sandstone slabs. The line here is single-track, but 4 miles to the south runs another track. On both lines, trains run in both directions. The highway is close to us; a car, in a hurry, overtakes us in a cloud of dust. A couple of peculiar vehicles with horses remind me of Russia in that three draft animals are abreast like troikas. On the side of the road we see a gypsy camp, which has made itself at home around its large pack wagons, overstretched with tunnel-shaped roofs.

It [the sky] thickens over the mountains in the northwest and nearby lightning blazes among the clouds, but our urgent train rushes along in blazing sun and it is warm in the compartments. Beautiful bluish mountains rise in the west; they belong to the Sangre de Cristo. The clouds have a threatening blue-violet stormy tone, but in the southwest it is clear. Maybe we'll leave the small storm center, which is out and about over New Mexico's plateau country. But the lightning still crosses each other among the clouds and shines like the swords of fighting giants.

Las Vegas gives us a half-hour breakfast break. In the station's “lunch room” you can eat a la carte, in its “dinner room” enjoy the dishes that are offered at fixed prices.

Five trains a day pass the station. But in addition there are numerous officials who do not take their meals on the spot [locals who go out for lunch] and, as mentioned before, [there are] travelers who pass by in their own motor cars. On average, they amount to 400 a day. Most of them are driven by tourists, who cross the continent from coast to coast, a pleasant as well as educational summer pastime in the United States.

In Las Vegas, you are at an altitude of 1,946 meters. Just outside its hank and sturgeon,³ the yellow-grey and red shifting ground unrolls its infinity again. And yet this desolate country is apparently “the big cattle country.” Soon the terrain becomes hilly again and we pass between small reddish-brown hills, often speckled dark green with bushes. The storm still seems to follow us. A small rain shower patters on the windows and fly screens. In the distance to the right are some “pueblos” or villages, built three thousand years ago by the Aztecs and now excavated by the archaeologists. We are led through a “lumber region”, where the felling probably proceeds quite carelessly among the yellow pines and junipers.

At an altitude of 2,262 meters we cross the pass of the secondary watershed Glorieta with a small village of the same name. And so the way carries on downhill towards the Rio Grande. The speed increases, and a motor train [trolley], which has been trailing behind us, can no longer keep up. After the track has been single-track for 140 miles, it becomes double-track again, and we meet a train with large railway wagons filled with fruit. The ground here has the same red tone that is so characteristic of the Grand Canyon. We rush in narrow passages through winding red valleys, often enclosed between vertical rock walls. “Lime kilns” rise up like huge white beehives.

From the small village of Lamy, a siding runs to the right or north to Santa Fé, the famous old town, which gave the railway company its name, located 4 Swedish miles away. With pain, one has to give it up and settle for a fleeting glance at Lamy’s “adobe huts”, characteristic Spanish houses built of sunbricks. The next town is Los Cerrillos. Large herds of goats graze on the prairie. You sit all day and watch the fleeing country,

³ A staked fence held together with metal rings or loops.

you get drowsy and doze off for a while. At a Mexican pueblo we arrive at the Rio Grande del Norte and then follow its valley. Here we have “horsebreeding country” with luxuriant greenery, lush meadows and park-like forest. At 3:46 we arrive in the city of Albuquerque on the left or east bank of the Rio Grande.

THROUGH NEW MEXICO AND ARIZONA.

It was Clarkson's duty to stop at Albuquerque and inspect Harvey's hotel, which had been completed two months ago, and this interruption suited me admirably, for after two hundred Swedish miles of railway travel one gets a little stiff in the legs. The hotel, erected in the usual Spanish-Mexican style, has cost no less than \$750,000, while the El Tovar guest house at the Grand Canyon, which is of wood, was accomplished for \$250,000. These two are the largest of Harvey's 25 hotels, the easternmost of which is located in Emporia.

Before dinner we paid a visit to Harvey's "Indian shop", which is a real museum. It sells modern things made by Native Americans, such as baskets, clay vessels, dolls, rings, silver bracelets and necklaces, and boxes with inlaid turquoises from Arizona. In a display, all the different types of semi-precious stones that occur in the latter state are exhibited. In a large room, they spread out on the floor a whole exposition of Indian rugs in peculiar, original patterns, where lightning and the swastika play prominent roles, and they showed us neat "rugs", something between shawls and mantles in red and yellow, which were a century or so ago worn by Indians. The sun and the effects of sunlight have certainly affected both the color and the pattern of several of them. Others are gray and black. The simply black and white striped ones have in their time been worn by chiefs. All kinds of objects of old Spanish-Mexican ecclesiastical art are also offered for sale, which were partly brought out from Europe and partly made on the spot by Spanish missionaries, such as pictures of saints, altarpieces, crucifixes, bishop's crosses in silver chains, candelabras, etc. Outside on the platform, where the travelers wander about during the part of the hour's intermission not filled by dinner, a line of truly picturesque Indian women of the Navajo tribe, dressed in motley costumes with red hoods and shawls and adorned with dangling silver ornaments, sat selling "pottery" and other small wares. One could have wanted to stop to draw or paint, but time did not allow it.

Albuquerque is a rather boring and anything but beautiful city named after the notorious conquistador, who ravaged and plundered the area around 1540. But in the surroundings there are remarkable remains from ancient times. The population consists of Mexicans, Indians and settlers.

After a restful night in a delightful and cool hotel room with the unmistakable fine wire grills for windows, we took a "yellow taxi" and went in 35 minutes to Isleta. Eight miles of the road is cemented, a luxury that here costs 15,000 dollars per mile. You cross the Rio Grande del Norte on a narrow iron bridge with a wooden carriageway. The river is huge but shallow, as is often the case out west, and its water is as thick as pea puree.

Isleta is considered to have a population of 25,000 people and has grown considerably in recent years. Most are Mexican. The houses are built in adobe style, i.e. of sunbrick. The Pueblo Indians or the settlers are Catholics. Several prominent Indians are buried under the slabs of the 300-year-old church, one of the oldest in these parts, decorated with flashy color prints. Patern, a Frenchman, who has spent 30 years in this dreadful place, was unfortunately not at home.

We were alone in the Mexican Mission Church of San Felipe. Beside the old Mexican city with its sun-baked, dull and dusty streets and its gray mud walls, the new city is purely American with its banks and business houses, its residential quarters of beautiful houses and gardens, its avenues and its "public garden." Tamarisks and poplars are common. You do what you can to conjure vegetation and cool shade trees out of the dry yellow ground. The small town's trams are driven by women, who, when the men came back from the war, didn't want to give up their jobs. In Isleta's Indian quarter, where the yellow mud houses resemble the homes of Western Asia, we visited a handsome old man, 78-year-old Manuele Antonio Carpio, a brilliant type, copper brown and with chalky white hair. The interior of his cabin was simple, but neat, and he even had Native American rugs on the floor. He harvested seven tons of "alfalfa" in his meadows and was satisfied with life.

We go back to Albuquerque, our day draws to a close, the dinner table is full of guests, who then wander the platform waiting for the train to depart. The vast majority are uninteresting; however, interested tourists are out to see their great country. On their way from the Atlantic to the Pacific, they follow the sun and gain four hours, because the continent has four different times, East time, Middle West time, Mountain time and Pacific time. In New Mexico the American from one of the eastern states has come to a new world. Here Spanish Mexico and the Indians are the dominant feature, spread out on endless desolate expanses with their herds of cattle, horses, sheep and goats. Here mountain ranges rise from a base that is itself high above the sea. Here the population is sparse in a country not yet completely conquered by the U.S.A.

At 9:30 in the evening we left Albuquerque. The city is visited daily by around ten trains. Before departure, the platform is full of people, and when we roll out into the night, not a seat is free. Clarkson and I settle in a Pullman car, although the train, which bears the name "The Scout", also has a "tourist car", 15 percent cheaper but on the whole as good as a Pullman. You have to take care of your space! All the hand-luggage is shoved under the seats, the ladies' bulky hats are put by the negro into paper bags, which are hung from the ceiling, and the black man and his equally black assistant fold down the upper berths with admirable virtuosity, and place the travelers' small things, outer clothing, books, newspapers, magazines and toiletry bags at the foot of their beds. In the meantime we sit in the smoking section and study the map or read the little organ called "The Albuquerque Herald." Out in the open it is around 25° C, but in the carriage it is suffocatingly hot. You therefore have your window open and make do with the wire mesh. But at night, it happens that you wake up to a creeping cold and put the window down. As for the landscape, which we pass through during the next six or seven hours, it will be no loss if sleep and darkness deprive us of its sight. We have already seen the Rio Grande del Norte in daylight, but it would have been interesting to see the region in the western part of New Mexico where the continental divide between the Atlantic and Pacific Oceans appears.

One is awakened by the negro and is finished in time for breakfast at Winslow, where the dining-room has a bright and pleasant light, owing to the absence of the

otherwise usually shadowy arcade gallery. In hot places, such as Albuquerque, however, this does its job by mitigating the heat and solar radiation. Here we are also piled high with “The Los Angeles Examiner” full of murders, court cases, divorces, scandals, boxing and sports, the most valued soft drinks for America’s thirst for education.

And then the train goes out again into this terribly desolate land, where not a person, not a cabin or a tent is to be seen, and where one searches in vain for life-giving streams of water. Only boundless wastelands span the gently undulating terrain in waves as far as the eye can see. As soon as the sun has risen above the horizon, the heat becomes palpable without being bothersome in any way. Here and there, horned cattle and horses graze among sparse tufts. We are in the state of Arizona and approaching the Colorado Plateau. Low mountains can be seen in the north. A first miniature canyon is crossed, and a second, deeper one soon follows. Over the horizon in the northwest floats a dull rose ash, which is probably — like the “ice flash” in the polar seas betraying the proximity of the ice fields — a reflection of the morning-blush redness in the Grand Canyon. Dark green belts of dense bush vegetation bring a change. In places they are interrupted by shallow furrows overgrown with artemisia. Canyon Diavolo [*sic*, Diablo] is deep, narrow and dark like an abyss.

A couple of hours from Williams, a sparse forest of pine and elm appears, and the trees increase in height towards the west. Between them, the ground takes on the greenish tone of grass. The country is hilly, and the railway runs between hills. An observation tower has been erected on the crest of one of them, from where a lookout is constantly kept over the forest and warning signals are sent out in the event of a forest fire. In the north, a mountain looms higher than all the others in the area, with white streaks of snow along the sides. Flagstaff is the name of a larger station, beautifully situated in the forest between the hills. Here a few cars rest, fully loaded with chests, bags, tents and other luggage. These are transcontinental tourists on their way to California, who also don’t neglect to glance over the Grand Canyon in passing. Not far from the station, lumber is harvested in the Flagstaff Lumber district. The forest belongs to the government. Near Flagstaff station, the Lowell Observatory rises on its hill. Its astronomers have made the study of Mars their specialty. And let’s not forget the small town of Flagstaff with about 5,000 inhabitants. Several red cottages with

white trim and window frames could be seen in the area, and one could not help but wonder if the inhabitants were Swedish emigrants. At some distance to the north, are ruins said to be of an Aztec city 1,500 or 2,000 years old with houses, forts and sun temples well preserved.

The San Francisco peaks are still visible in the north, and at ten o'clock we pass the Arizona divide, the watershed between eastern and western Arizona. The sky is completely clear, in the forest the heat is not dangerous. The highway changes to red; it's the same road we've seen so many times before and which connects New York with Los Angeles and San Francisco. A line of trucks haul logs from the Flagstaff forest. The workers, who are busy with the felling, live in small, neat wooden houses, which they built themselves.

The forest thins out and the hills recede as we approach Williams. These hills consist of volcanic ash. At 12 o'clock we arrive in Williams, a small town with 400 inhabitants, some small streets and low houses. Our train stops for 10 minutes and then disappears into the west on its long journey to Los Angeles. But we who are going to the Grand Canyon will stay and pass the time by hiking in the typical Western American resort, which will eventually grow into a city. On the mountain-ringed plain there is room enough! Fred Harvey's house by the station has a large and pleasant hall with a fireplace, where in winter a good fire burns. The floor is covered with Indian rugs, not really beautiful, but original in their simple symbolic geometric patterns, and here, if ever, not out of place.

Although the train from Williams to the Grand Canyon has already arrived, it takes two hours before it leaves. It consists of just two carriages, the rear of which is a "parlor car" with an open viewing platform at the back. The number of passengers is not large, so the two carriages are quite sufficient even after train No. 9 from Chicago to Los Angeles arrived at 3 and discharged a few more tourists for the Grand Canyon. But then we get on board and roll north. The air is lovely, even cool thanks to the height of 2,226 meters at which we are. Williams disappears behind us. We whiz in curves between sparse trees and hills. Nothing in the entire surroundings lets us guess the proximity of the Grand Canyon, and yet it is only a couple of hours' journey there. But after 10 minutes of driving, we pass the root and beginning of Havasupai

Canyon, which is 55 miles long and exits into the Grand Canyon. But who could have guessed the space, the void in the earth's crust, into which this little inconspicuous valley opens! After everything you have heard from others and seen in pictures, however, you are prey to a feeling of festive excitement and wonder if the reality will correspond to the expectations you have made. Looking north in the hope of not missing the first sight is of no use, for only for a few seconds do you catch a glimpse of the Grand Canyon in the immediate vicinity of El Tovar. One of the remarkable characteristics of this earth's largest erosional valley is that you have no idea of its existence until you are a few steps from its edge.

Onward we rush between sparse trees, then between flat rounded hills, overgrown with tufts. The San Francisco Peaks emerge again, now to the east. But gradually they fade away like other mountains in their vicinity. A south wind blows. Thanks to the train's speed, we only notice it during the short stops at the small stations. Once, however, we had to wait a quarter of an hour while two trains from the Grand Canyon passed by. On this line are also brought the masses of provisions which are consumed in El Tovar's hotel, even the water, not only that which is intended for drinking and cooking, but also the bathing water is brought in tank cars this way to the edge of the Canyon.

Sometimes the track goes through dense thickets. The hills become more and more flat and we rush across desolate expanses. Trees and bushes cease, only sparse tufts grow on the prairie. Small, short bridges cross over now dried-up ravines. The track runs in an almost straight line. Annita [Anita] is a small place with a school house for the local children. Then again forest of pine and a buckhorn (goat apple) takes over. Between the trees, the ground changes to yellow-red as before. Finally, the terrain is hilly again and the course winding. The locomotive howls at every bend to warn, but life is seldom seen in this desolate landscape. Only occasionally do you see horses and horned cattle. In parts, the forest develops into an almost Nordic beauty.

We are getting close! Only ten minutes left! Through a clearing in the forest we catch a glimpse of the bright red rock wall on the other side of the abyss. You hardly have time to get your heart racing and startled until this first dream vision is over. A

couple of minutes later the train stops at El Tovar and in cars we are taken up to the hotel. It's just a couple of minutes drive, a couple of zigzag bends up there. Before you know it, the car rolls up to the south-facing veranda of a rather large brown wooden house in country style with two floors and reminiscent of a tourist hotel. The façade thus faces south, and, on the drive in front of it all the traffic and movement takes place. Here you have no idea about the Grand Canyon; the hotel building itself obscures the view.

Already in Chicago I had asked to have a room, from whose balcony or window I had a clear view of the Canyon and where, during a couple of days of rest, I could sit and draw and paint, observing the changes in the light effects during the hours of the day. But there are no such rooms and no balconies in El Tovar's hotel. Presumably this device is intentional, otherwise it is inconceivable. Perhaps it is intended that the tourist flock should not be distracted immediately upon arrival, but should calmly settle in before directing its steps to the brink of the abyss.

Even now it was teeming with guests. On average, 500 arrive a day, many of them in their own cars, probably most, because the number of cars is 100 a day (minimum 75, maximum 120). Most tourists arrive early in the morning and leave late in the evening. The hotel's 130 rooms are therefore usually sufficient. In case of emergency, the simpler rooms are also hired for 1 or 1½ dollars, which are housed in small temporary cabins.

On arrival at El Tovar we were met by Mr. Carleton J. Birchfield, whom I had met in Chicago, and who is Assistant General Advertising Agent of The Atchison Topeka & Santa Fé Railway System, where he serves most closely under Mr. William H. Simpson, who, as I before mentioned, is Assistant General Passenger Agent. He is always accompanied by his photographer, Mr. Edw. H. Kemp, and the two gentlemen harvest every summer a new crop of magnificent photographs from the Grand Canyon.

With another couple of the leading men of the place I make acquaintance at once. Colonel [Walter W.] Crosby, who is the Superintendent of the Grand Canyon National Park, and Mr. Victor Petrosa, Manager of the El Tovar Hotel, who during my stay

attended to me in the most amiable and present manner way. Colonel Crosby orientated me in the vast area and provided me with all necessary maps and companions, and Mr. Petrosa was responsible for my care during the excursions.

With my new friends, I agreed to take it all calmly and composed. You have to digest these overwhelming landscape images bit by bit — in “small portions”, otherwise you freeze. I will follow the same principle in depicting the Grand Canyon.



The Palisades from Navaho Point.
(facing p. 48 in the original edition.)

THE FIRST IMPRESSION.

After having dinner with Birchfield and Kemp in the crowded dining room, the three of us already this first evening made a drive to some of the nearest vantage points, Maricopa Point, Hopi Point, Mohave Point and Pima Point, all named after Indian tribes and all located to the west near El Tovar. The road follows “the rim” or the sharp edge, from which the drop of the rock walls is vertical down to dizzying depths. However, the Grand Canyon’s southern rim is by no means a straight line. On the contrary, it is quite irregular with its bizarre “peninsulas” and its more-or-less deeply cut canyon bays, although in this respect it can in no way compete with the northern rim. Our outing to Pima Point was just under 10 km (6¼ miles) long, in a straight line not quite 6 km, for the road goes first west, then NNW to Maricopa and Hopi Point, then SW and NW to Mohave Point and finally to the south, west and WNW to Pima Point. But the greater part of the road runs along the edge itself, and from the car one constantly sees a landscape which is absolutely unique in its kind on earth and which in overwhelming and imposing beauty has very few competitors. Sometimes you are only a few meters to the edge of the *ättestupans*,⁴ sometimes you see the mighty gap between the outermost trees as if from a gallery of slender columns. El Tovar is built deep in a blunt bay, bounded by two projecting headlands. The eastern one is called Yavapai Point, the western Maricopa Point. To the latter we drive through the forest at some distance from the edge. When you emerge from the safe semi-darkness of the forest onto the bright promontory, which like a diving board seems to point towards an abyss of open space, you are close to gasping. You stop for a few minutes on the crest of the headland, which bears the Powell Memorial or

⁴ “Ättestupa is a tradition or legend that says that during Nordic antiquity, elderly people threw themselves, or were thrown, to their death by over a steep cliff, or *ättestupa*. According to the myth, this was done when the elderly person became unable to support himself or contribute to the work on the farm.” (Wikipedia.se online, accessed in Swedish and translated online, August 22, 2022.)

monument erected in memory of Powell's daring boat trip through the canyons of the Colorado River in 1869.

Then you go out to the tip of the cape itself. On three sides, to the west, north and east, the earth's surface has disappeared. There the void looks down to a depth of 5,000 feet or 1,500 meters. You don't see the vertical sides of the promontory you're on — unless you lie down with your head outside the edge and let your gaze fall vertically down along them. But on the first day, you are happy to refrain from all neck-breaking experiments and calm down until you can trust your head and legs. Because it can happen that you get dizzy and lose control of your muscles. You feel like you're standing on a free-floating outcrop without a base and with a land anchorage only to the south. And everywhere you look, you have the infinity of depth below you. At the bottom you can see the dark channel in which the Colorado River flows, but the river itself has cut so deeply through the granite that it is not visible at all. Opposite us at about 8 miles' distance runs the northern ridge, still much more irregular and incised than the southern, and before its front we perceive this gigantic fabled city of pyramids, temples, pagodas, towers and walls, fashioned by a master's hand that has not his equal among the children of men. They are blocks of the solid earth's crust, which by the mechanical forces of erosion and weathering, the flowing and falling water from the clouds, the winds, the hailstorms, the scorching heat of the sun and the blasting frost, have been sculpted through millions of years to that stage of perfect plastic beauty, which this giant sculpture in limestone, sandstone and granite achieved during the current geological age. For one cannot readily imagine that these killer masterpieces of nature will ever achieve a higher degree of beauty than now. After new millions of years they must rather drop in height and pass into a state of ruins. Well, the Colorado River also continues its sawing and corrosive work down through the granite, and the river is here 760 meters above sea level, but it flows in its deep, narrow granite channel, The Inner Canyon or The Granite Gorge, and the relative heights of the pagodas and temples in relation to the deepest part of the Canyon are not thereby affected.

The free-standing pyramid-shaped blocks, here usually called “temples,” are built according to [physical] law, largely identical to each other and yet constantly changing. Their crests are horizontal and lie in the same level plane as the surface of the Colorado Plateau in general. Their sides are partly vertical, partly steeply descending, and these steps of 500 to 800 feet in height alternate with each other. Everywhere one sees the same steps again at the same level and with the same variations of color, and one soon learns to distinguish the different strata or horizons of limestone and sandstone from one another, and recognize them in whatever part of the Grand Canyon one is.

All these temple-shaped blocks are to be considered offshoots from the northern rim and are thus located on the north or right side of the Colorado River. The north rim of the Grand Canyon, where the tourists only rarely go, is, as already said, far more capriciously incised and cleft and therefore also richer in smaller side canyons than the south. The view from south to north is generally more favorable than in the opposite direction. Because during the brightest hours of the day, you have the sun in the south and are not dazzled by it when you look towards the north, while the landscape in the north is sharply sunlit and reveals all its details. But if you walk along the northern ridge, you are dazzled by the sun and see the rock wall of the southern ridge in shadow. The fact that you are around 300 meters higher in the north than in the south is hardly noticeable to the naked eye. This is only generally valid. Because the red illumination of the morning sun and the evening sun is equally captivating whether you see it from the north or the south, I will show in what follows that in the north you can witness scenes that break all records. You probably come closest to the truth if you admit that for every step you take on the northern as well as on the southern rim, you are prey to astonishment and admiration, a well-being of the soul, which lacks all boundaries, all measures, all possibilities for comparison.

The sun approaches the horizon. Of the red, yellow, grey, brown and violet tones, the reds become increasingly dominant. It is the evening blush that begins its play. But now the shadows are also thickening and lengthening, the harbingers of night. The entire sculpture therefore appears with extraordinary sharpness. This wonderful

world of fairytale castles and fortresses, Javanese temples and Indian pagodas, millions of times larger than all human structures, stand increasingly sharply drawn beside and behind each other, surrounded by their mute enigmas and by the unfathomable mystery of creation and destruction. You don't talk to your companions, you put your hand to your forehead and wonder if it's reality or a dream. In vain you try to grasp the dimensions. It is well and good to be told that it is 8 miles to the north rim and that the Colorado River is 5,000 feet below us. But that doesn't help us. All measurements and distances seem so enormous. When one arrives at the edge of the Grand Canyon, one feels that an immeasurable piece of the earth's crust is missing. It is as if the creator, when he assembled the solid land on earth, forgot to fit in his puzzle game the last piece, in whose place therefore only the void watches. A circumstance, which is here also apt to overlook the visitor, consists in this, that, while his eye is otherwise always accustomed to look up from the foot of the mountains towards their slopes, ridges and summits, he finds himself here so high you come and look down on this fantastically modeled world of red shimmering Alps. As long as he stays at El Tovar and all the other vantage points that garnish the southern rim, he is always at the same height. The angles of perspective therefore only change horizontally, and the play of colors changes during all the hours of the day, during the pursuit of storms, cloud masses and mists, often from minute to minute. A traveler who does not submit to the trouble of going down to the river will therefore leave the Grand Canyon with unclear concepts of its dimensions and its relief. To that category belong most of the tourists, those who do not sacrifice more than a fleeting day on this most wonderful of all spectacles. This includes the distinguished lady from the salons of New York, who leisurely walked the hundred steps from the hotel to the parapet at the rim, took out her binoculars, cast a glance over the Canyon and with a jaded sufficiency asked [Hedin writes the tourists' comments in English]: is that all? This also includes the miss, the jazz girl from the ballrooms, who simplified the great riddle to the fleeting remark: is'nt [*sic*] it cute? Or the rich millionaire, who became stone rich on chewing gum or galoshes and was not impressed by anything but accumulated capital, who exclaimed: what a hell of a gash! But to a completely different category of unartistic philosophers belonged the child, who at the edge of the abyss asked his father: what happened? In that question [Hedin writes in Swedish]: "what has happened?" in fact

contains everything that geologists have sought to answer over several decades of toil, renunciation and contemplation.

In order to get a reasonably clear concept of the Grand Canyon's dimensions and shapes, it is therefore not enough to associate only with the perspectives that lie in the horizontal plane. You have to go down to the Rio Colorado and from there continue to the northern rim. During such a trip, you get the opportunity to witness how the vertical perspectives also change, you get to see the "temples" from below their bases and, like at the foot of ordinary mountains, look up towards the top. And you can also see how the southern and northern rim-rocks raise their vertical walls towards the sky.

The distance between the sun and the horizon continues to decrease. All the projecting parts facing the west are brightly illuminated and colored in brilliant red tones as if they were of ruby and as if glowing furnaces burned within them. The parts not sunlit are almost black, and in the dense shadows it is difficult to distinguish the details. The relief appears with greatest sharpness and clarity when the sun is low, the different pyramids modeled by atmospheric variety, and the ridges, divided into different elevations by means of steps and steeply terraced slopes, stand free from each other with a clarity that can never be achieved when the sun is at its noon height in the south and the entire landscape in the north merge into one, into a single background, where the different, separate parts obscure their own shadows.

A better vantage point than Hopi Point for a first orienting look over the Grand Canyon cannot be imagined. For it is the middle of the three promontories, Maricopa, Hopi, and Mohave, which, like extremely pointed thorns, point northward from the nearly square peninsula, which west of El Tovar itself is directed northward, projecting further into the Grand Canyon than any other point of the southern edge near the guest house. One stands there as if on the tip of a very narrow peninsula, which is surrounded on all sides except in the south by an ocean, which is not filled with water but with air. One thus embraces with one's gaze almost the whole of the most interesting part of the Grand Canyon from The Painted Desert's gigantic vertical wall of rock, the Palisades, 20 miles to the east and follows the Colorado downward just as far away in the northwest.

Before proceeding further in the description of the picturesqueness of these sublime pictures of the landscape, and while we are still at Hopi Point, I desire to seize the opportunity of sweeping with a glance the more prominent features as they roll past here from east to west, in the direction of the river as it flows through this part of northern Arizona. For a topographical basis I use the maps I obtained at El Tovar, an outline of which is here attached,⁵ and as regards the geological structure, which I only briefly touch upon in this connection, I follow the excellent representation given by N. H. Darton in his book "Story of the Grand Canyon of Arizona."

Farthest to the east, thanks to the shape of the entire vast valley, we perceive the sharp arc in which the Colorado River changes its southern direction to a western one, yet there is not a glimpse of the river itself. It is chiseled too deeply in its narrow corridor. We see the grandiosely drawn rock wall, which from the edge of the plateau first vertically, then steeply and in ledges, plunges down to the left bank of the river precisely in the insanely picturesque area where the Rio Colorado describes its arc. The rocks that form the entire plateau, which is cut through by the river, are, with a few exceptions, horizontally layered. At the top we find the limestone, which, like the three formations below it, belongs to the coal period and is called Kaibab. On the surface of this limestone run all the roads on the southern and northern rims, where grow the forests, where stands El Tovar's guest house and where are located all the famous viewpoints that tourists visit and of which Hopi Point is one. The Kaibab limestone is 700 feet thick and forms the vertical cliffs that we everywhere see at the top of the southern and northern rims as well as on the crest of many temples and pyramids. Closest below this formation we find the Coconino sandstone, 300 feet thick and also belonging to the Carboniferous period. These two names are also found in the topography of the landscape, for the level, forested land north of the river is called the Kaibab Plateau, the 300 meters lower and similarly forested land south of the river the Coconino Plateau. If the river had not existed, people would have had no idea of anything other than the Kaibab Limestone. But thanks to the geological phenomena which took place in conjunction with the erosive power of the river, all the

⁵ Refer also to Hedin's map, which is reproduced at the end of his book (as well as in this translation).

underlying horizons — with the exception of those obliterated by “the great denudation” — down to the primeval rock, the granite, have been exposed, and therefore the earth’s history here lies open to the researcher like an open book, giving us an insight into the structure of the earth’s crust as in no other part of the planet’s surface. The Grand Canyon therefore not only offers humans a world of incomparable beauty, but also lessons of inestimable value to geological science.

We will soon get to know the horizons under the Kaibab Limestone and the Coconino Sandstone. Now I will only mention that to the eastward of the vertical wall of rock, the Palisades, which rises on the left side of the river arc, spreads the flat and desolate country known by the name of The Painted Desert, famous for its wonderful splendor. From places which we shall later visit, one can see the hills and ridges that to the east and northeast bound »Den målade öknen» [“The Painted Desert,” in Swedish], with fabled memories of the happily free days of the Indians and where the last, merging-together groups of the Hopi tribe still live in their simple mud huts.

If, from Hopi Point, we look down into the valley depth and to the east-southeast, we perceive the extremely energetically cut granite corridor in which the river flows, and we see it as far as it goes, that is, to the point where the granite dips below the covering Unkar group’s ancient and steeply plunging rocks to the north. Here and there the shale slopes of the 1,000-foot mighty Cambrian Tonto Formation are also visible, and on its crest rises, like a vertical wall, the 500-foot-high limestone bed called the Redwall, which is the oldest of the Carboniferous formations here represented.

To the east-northeast, always from Hopi Point, we have Cape Royal, a seldom-visited promontory jutting out towards the south from the Kaibab Plateau in the north, one of the most wonderful vantage points in the entire Grand Canyon, to whose dizzying ättestupor I shall later lead the reader. South of the promontory and as if forming a continuation of its peninsula rises Wotan’s Throne, an almost detached part with a tabular covering of Kaibab Limestone and below it in turn the other formations, the Coconino Sandstone, the 1,100 feet of mighty red sandstone and shale of the Supai Group, the Redwall Limestone Wall, the Tonto Group greenish slopes and finally the dark granite.

To the east of Wotan's Throne stands Vishnu's temple with its cupola of Kaibab limestone and with its two offshoots, the Rama Shrine to the southeast and the Krishna Shrine to the southwest, both thus rising on the north or right bank of the river. The Vishnu Temple is one of the monumental colossi of the Grand Canyon, visible from almost any point on the South Rim, as well as from many on the North Rim and on the valley floor.

If we direct our gaze to the northeast, it meets a singularly beautiful pyramid, forming the detached continuation of a peninsular spur from the Kaibab Plateau to the north, and like this at the top is covered with Kaibab Limestone. This pyramid bears the name Buddha Temple. The Manu Temple, which lacks the Kaibab Limestone and whose crest is made up of Coconino Sandstone, forms a sort of sunken bridge between the Buddha Temple and the plateau north of it.

About the middle of the line which joins Hopi Point to the Temple of Buddha rises the curiously tabular Pyramid of Cheops, composed of Redwall limestone, but isolated and separated by weathering from the spurs of the northern plateau country. Its 500-foot-high sides are vertical and rest on the green shale slopes of the Tonto Group. The lower parts of these slopes pass into dark quartzites, red shale and sandstone, which belong to the Unkar Group, the fragmentary and discordant horizon common in this region between Trinity Creek and Phantom Creek, the two small canyon valleys that are separated from each other by the Temple of Isis and Cheops Pyramid. Here, too, the layers of the Unkar group appear to fall steeply towards the north, while all the other formations lie almost horizontally. Where the Unkar Group is lacking, it is the slopes of the Tonto Group that descend to the upper edge of the narrow, dark corridor the Colorado has cut 1,000 feet through the granite. The distance between Hopi Point and Cheops Pyramid is only 3 miles. Between both flows the Colorado River in its granite channel. At a couple of points we see the river's fine gray band, the width of which here, however, amounts to 250 feet or 80 meters. We seem to have the river almost directly under our feet. The elevation difference is 4,600 feet or 1,400 meters. You must not have vertigo!

The Pyramid of Cheops, the Temple of Buddha and the Temple of Manu are thus located on a line drawn from Hopi Point to the northeast. Parallel to and east of this

line we find a side canyon cutting from the right or northeast by the actions of the geological ages with tremendous energy, which bears the name of Bright Angel Creek. From Hopi Point this valley, running in a remarkably straight line, offers a stately sight, sandwiched as it is between the drop-like scenery of temples and pyramids with vertical plunges, sheer slopes and terraced sides of astonishing wildness and grandeur. Its root and beginning in the interior of the Kaibab Plateau is also situated at a distance of 11 miles from the Colorado River. We will later have the opportunity to establish closer friendships with Bright Angel Creek as well.

As this side canyon is bounded on the west by the Temple of Manu, the Temple of Buddha, and the Pyramid of Cheops, so it is enclosed on the east by a similar line of wild, rocky erosional remains of the usual pyramidal or temple form. They are modeled out of an ancient continuous southwest projecting spur from the Kaibab Plateau in the north and bear the names Deva Temple, Brahma Temple and Zoroaster Temple. All three are capped by Kaibab limestone, which through its hardness protects the underlying softer Coconino sandstone from weathering. Here, too, we find the characteristic 500-foot vertical wall of rock of the Redwall Limestone, always as easily recognized and superimposed by the red escarpments of the Supai Group, while the slopes of the Tonto Group begin from its base and continue in their 1,000-foot thickness down to the Cambrian sandstone on the crest of the granite. Everywhere the same law rules; the same steps, the same walls, slopes, terraces, towers and colors recur everywhere, right up into the side canyons.

Directly north of our vantage point rises, at a little over 5 miles' distance, the glorious Temple of Shiva, which is likewise one of the most famous giant sculptures in the Grand Canyon's fabulous fairytale city. Here we see more clearly than ever the entire sequence of geological layering exposed in all its splendor and although I have already mentioned the various formations, I am recapitulating them once again for the sake of better memory. Thus, at the top of the Shiva temple we see a horizontal platform of Kaibab limestone (700 feet), below that the Coconino sandstone (300 feet) visible everywhere in the Grand Canyon as a horizontal band of discrete light gray color, further into the depths are the shales and sandstone of the Supai Formation, partly as solid-rock outcrops, partly in the form of steep cones of gravel

[taluses], red in color and extending down (1,100 feet) to the upper edge of the Redwall limestone (500 feet), which also at the Shiva temple form vertical walls. Below this follow the greenish shales of the Tonto Group in less steep slopes and extending down (1,000 feet) to the Unkar beds and granite.

From the middle slopes of the Shiva temple massif, and thus considerably lower than this, extend highly irregularly shaped outcrops belonging to the Redwall Limestone and crowned with Supai shales. To the western of these spurs is the Temple of Osiris, which even has a cap of Coconino sandstone on its crest, visible to the north-northwest from Hopi Point. The Temple of Osiris emits in its arrangement to the southwest the Ratornet (Tower of Ra) with picturesque red sandstone masses of the Supai Formation. To the same group belong two heights on another southern spur from the Temple of Osiris called the Temple of Horus and the Tower of Set.

The eastern spur from the Shiva Temple mass, visible to the north-northeast from Hopi Point, is called the Temple of Isis and consists of Redwall Limestone bearing Supai Cliffs and with a small remnant of Coconino Sandstone on top. The Kaibab limestone is thus missing from both the Osiris and Isis temples. It has been carried away by weathering, and the soft sandstone is thus more exposed to attack by water, weather and winds and doomed to meet a more rapid destruction, geologically speaking.

Finally, if we turn our gaze toward the northwest or down the Grand Canyon, we notice a whole line of picturesque, wooded, limestone promontories, which, like Hopi Point, project northward from the Coconino Plateau. The farthest one within sight is called Havasupai Point, to which the unforgettably grand spectacle it offers we shall eventually direct our way. Between all these promontories lie transversely steep incisions or bays, short in comparison with those which gnaw the northern side. Farthest to the northwest, the horizon line is formed by the Powell Plateau, which rises as a relentless boundary wall to a continued view of the Grand Canyon. Capes, pyramids and valleys can be seen there too, many of which have names. In this context, it may be unnecessary to list them, preferably as I have not visited them, only seen them from vantage points on the southern side.

The orientation I received at Hopi Point was thus very valuable and included many of the most characteristic points of the great trench. I got a first inkling of the position of Navaho Point to the east, Havasupai Point to the west, Cape Royal to the northeast, the Hermit Cabins in the deep, the bridge over the Colorado River, noble places which in the following days I was to visit.

But the evening progressed. We got back into the car and rode along the Hopi Wall in an arc along the edge of the abyss known as The Inferno. From Mohave Point, where we rested for a short time, we have the same landscape in front of us, only the immediate surroundings change. From here we follow The Great Mohave Wall on the Hermit Rim Road and then immediately to the right is a Ginungagap, which is called The Abyss.⁶ After 7 miles we arrive at the destination of today's journey, Pima Point, and behold, leaning against the iron railing at its extreme edge, the Colorado River as the finest, faintly meandering, ribbon in the depths. Here the width is said to be about 400 feet and the speed to 18 or 20 miles an hour. At several points the river forms rapids. Only when the wind didn't blow in the pines for a moment could I faintly perceive the noise of the thundering masses of water. I would get to hear it louder!

From Pima Point we also see at a distance of one English mile to the northwest and 3,600 feet or 1,097 meters, below us the rest-place called the Hermit Cabins, and to which the trail is 7½ miles long. When you stand at the very edge of the vertical rock wall, you don't understand how a bridleway can lead down there. In a couple of places it appears with the binoculars as a fine light yellow thread. It must be neck-breaking, one thinks, and wonders if one doesn't have every prospect in the world to slide forward over the mule's head and continue over the edge of a vertical slope. From the Hermit Cabins, it is another 1½ miles down to the river at Hermit Rapids, dropping another 1,200 feet or 366 meters.

But now the day has passed and the sun is setting below the horizon in the west. The evening blush, which colored all the temples and pyramids red, fades away and the magnificent tones fade away and pass into violet and then black shadows. Dusk descends on this fairytale world and night is coming. Then it is time for us to return

⁶ "Ginungagap (Norse mythology, 'gaping abyss', 'yawning void') is the primordial void mentioned in the Gylfaginning, the Eddaic text recording Norse cosmogony." (Wikipedia online, accessed August 22, 2022.)

home to the hospitable abode in the wilderness, which bears the name of the first Spaniard at the Grand Canyon, Tovar.

After three days on the railway and a couple of hours in the canyon, you become somewhat subdued and quiet. It's not worth trying to portray one's feelings of rapture and astonishment. You agree with yourself to try to pull yourself together and be humble in the face of the impossible. And yet, I cannot avoid betraying that in certain ways I was stronger than the other tourists. Thirty-nine years ago, I had copied a number of American plates of the Grand Canyon in huge format for a presentation that lecturer A. E. Törnebohm gave in the geographical society, and which are probably still at the Technical University in Stockholm. I had also, like no one else, seen the vast trench between the Transhimalaya and the Himalayas, through which flows the Tsangpo or Upper Brahmaputra. Both in length, width and depth, the Colorado Canyon is a pygmy compared to the Tibetan depression, which also largely owes its creation to erosion. I had also ridden over most of the canyon valleys of the Satledsch, some of which, though grand in their measure, were still innocent by comparison with the Grand Canyon. So, for instance, to cross the Satledsch tributary the Ngari-tsangpo, one must descend precipitously from the level plateau country to the river, which flows 2,720 feet or 830 meters below. In terms of grandiose erosion, the rocky valleys of the Yangtsekiang, Mekong and Salwen in the borderland between Tibet and China also rank very high.

But at the Grand Canyon, the surface forms are unlike anything else on earth. What strikes us most are the vertical cliffs of the southern and northern edges, the stepped and terraced pyramids, the deep granite channel in which the river flows, the desert-like desolation, the brilliant play of colors, the paradoxical-sounding circumstance that despite the enormous measurements and dimensions we nevertheless have the whole landscape before us and, as from Hopi Point, master it with the eyes. From this last-mentioned circumstance, many are led to believe that it is enough to see the Grand Canyon from El Tovar. This is a big mistake. Until you have crossed the entire erosional valley and spent several hours with pencil and brush in hand at all the most important points, you have no clear idea of this region that is saturated with beauty and grandeur.

Which spectacle is more imposing: that which unfolds before and below us as we stand on Hopi Point or that which meets the gaze of a traveler as he stands on the 19,000-foot Chang-lung-yogma pass in the Karakorum? After seeing the part of the earth's crust that is controlled from there, I noted: "above and beyond the nearby, partly black mountains, you see a white horizon, a saw-toothed line of mighty Himalayan peaks. In the depths below us we see the small valley through which we have worked our way up with so much effort. It looks pitifully small from up here, an insignificant gutter in a world of gigantic mountains. The horizon is clear, its outline extraordinarily sharply drawn. Silver-white, sunlit peaks tower above and beyond each other, but usually the eternal snowfields shimmer in shades of blue of varying strength, either dull or dim, depending on the angle of the slope in relation to the height of the sun. This whole agitated sea of the earth's highest mountain range looks wonderfully smooth as one's gaze sweeps unhindered over its ridges. But this smoothness is of the same kind as that of the sea during a raging storm."

Anyone who has had the privilege of seeing both of these landscapes and thus has an opportunity to compare them with each other, is very careful about all comparisons. They lack all points of comparison. One shows us the earth's mightiest and deepest erosional valley, the other the earth's highest mountain system. They don't outshine, darken or obscure each other. It may happen that when you stand at the edge of the Grand Canyon, you see in your memory a vision of the Himalayas in the background. One is then amazed at the forces that managed to fold the surface of the earth up to 29,000 feet above sea level and raise the mountain ranges to the image of a raging sea. And one is also giddy at the thought that since these sandstone and limestone beds of the Grand Canyon have been deposited in water to a thickness of thousands of feet, they are again, by movements in the earth's crust, in an unaltered horizontal position, lifted up to a height of 7,000 feet above the surface of the world's oceans, and meanwhile cut through by a stream of water, which was strong enough to carve out this unheard-of chasm and still with every second that escapes and through countless millennia, it fleetingly, without rest or respite, completes its victorious course through the hard granite.

With such thoughts I returned to El Tovar's great salon, where the tourists had returned from their various excursions to now talk in groups about today's experiences and tomorrow's plans. Among these good walkers and hikers, who did not interest me in the slightest, I found an old man who interested me to the highest degree. His name was Edward E. Ayer. He was one of the directors of the Field Museum in Chicago, and for 26 years he had traveled for four months every year in Europe and North Africa to collect and purchase precious and rare objects of ethnography, archaeology and art, all on behalf of his museum. Nowadays he confined his travels to his own continent and spent four months of the year in an automobile all across the U.S.A. And he was 82 years old! He was magnificent, full of life and enthusiasm and rich in ideas and plans. Now he had come to the Grand Canyon, which he loved, but stopped as briefly as a migratory bird and only to move on the next day on his rolling wheels. In the civil war he had participated in 1862–64. In 1884, he and his wife, who was still accompanying him, had made the perilous journey down the Grand Canyon during a time when not even the slightest trail had been prepared.⁷ And he had much to tell of the toils and dangers with which such a journey was connected. Among the acquaintances I made on this trip, Mr. Ayer was one of those I will never forget.

It was not uncommon, after the powerful impressions of this day, to retire at last to a pleasant bedroom and let the night rule with its coolness and its peace.

⁷ In May 1885, Ayer, with a party that included his wife, Emma, hiked down the (Old) Hance Trail to the river. The butte that overshadows the trail, Ayers Peak, was named for Mrs. Ayer, said to be the first non-Native woman to go into the canyon.



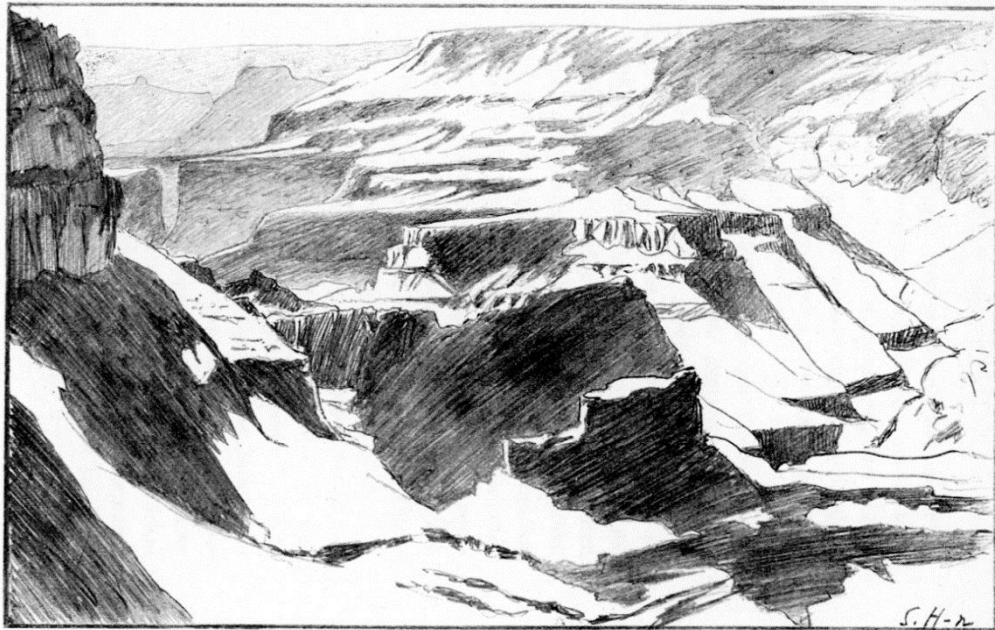
Utsikt mot N 10° V från El Tovar.
(Ungefär mitt på bilden synes The Battleship.)

View towards N. 10° from El Tovar. (Approximately
in the middle of the picture The Battleship appears.)
(p. 63 in the original edition.)



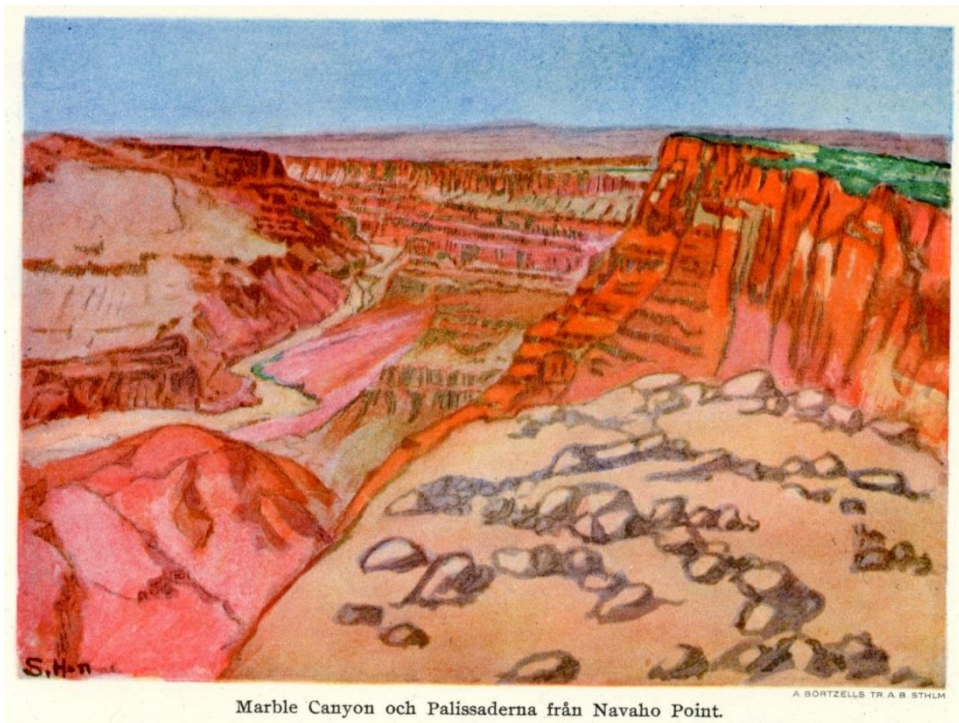
Aftonskuggorna vinna terräng.
Utsikt mot NV från en punkt strax öster om El Tovar.

The evening shadows gain ground. View to the NW
from a point just east of El Tovar.
(p. 69 in the original edition.)



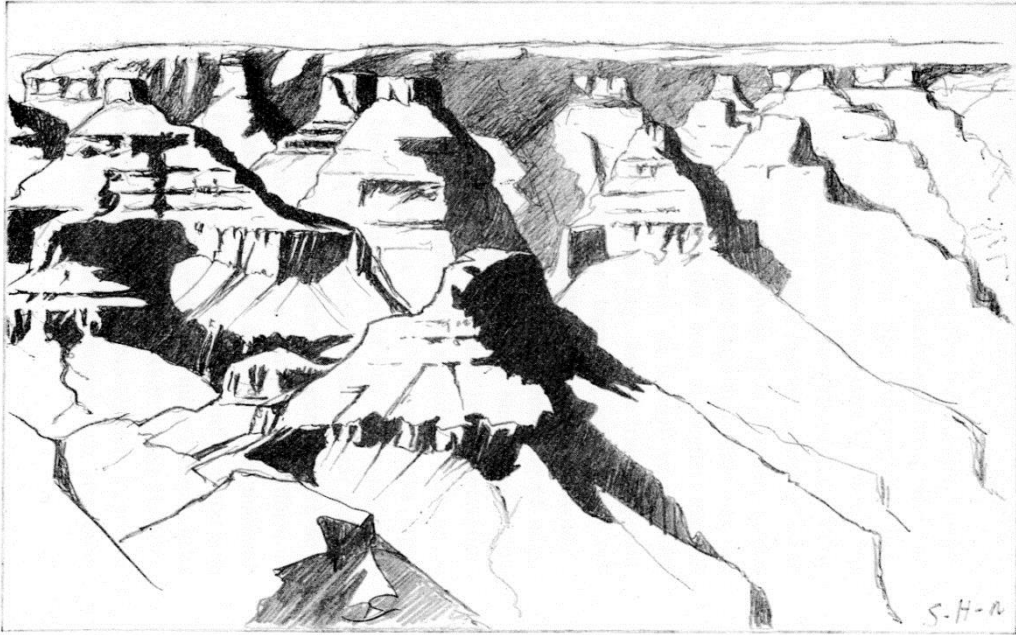
Utsikt mot NV från en punkt strax väster om El Tovar.

View to the NW from a point just west of El Tovar.
(p. 75 in the original edition.)



Marble Canyon och Palissaderna från Navaho Point.

Marble Canyon and Palisades from Navaho Point
(facing p. 80 in the original edition.)



Utsikt mot N 16° V från en punkt strax öster om El Tovar. Ett virrvarr av »tempel» med skarpa eftermiddagsskuggor.

View towards N 16° W from a point just east of El Tovar. A jumble of “temples” with sharp afternoon shadows.

(facing p. 81 in the original edition.)

THE VIEW FROM GRAND VIEW.

June 15th was a windy day, and dense clouds hovered over Arizona. I hiked along “the rim” to draw a couple of sketches and then had lunch with Clarkson and Colonel Crosby, the government representative at the Grand Canyon National Park. I then took a drive with Messrs. Birchfield and Kemp to Grand View, one of the finest viewpoints in the whole district.

The place is situated 11 miles’ distance to the southeast from El Tovar, but the road is 15 miles long. Namely, it departs from the rim and meanders through the lovely, fragrant coniferous forest that adorns the northern belt of the Coconino Plateau. At the heart of the indentation formed by Hance Creek is Grand View’s little guest house, and 1½ English miles directly north of it, the Kaibab limestone juts out into the marked promontory called Grand View Point, where weathering has carved out the most wonderful columns, walls, and towers, some of them with uninviting names, Thor’s hammer, Suicide Rock, and the like.

The vantage point itself, where we take a thorough study break, is a white limestone platform, which points out into space and is surrounded on all sides by vertical chasms. There were only a couple of meters to the edge of the precipice. Even if you are used to the dizzying paths in High Asia, you feel a little ill at ease when you walk out onto the extreme tip of the cape. You don’t walk and fumble and talk and look around. You keep your eyes fixed on the path and do not lose control of your steps. It’s not worth stumbling or slipping on a rolling stone. A suicide who takes the leap over the edge of Suicide Rock, can be quite sure of reaching his goal. The little that was possibly left of him down there in the depths, could not be tracked down without dogs.

In general, the view sees the same landscape as from Hopi Point. But at Grand View Point we are 235 feet (71.5 meters) higher than that or 7,406 feet (2,258 meters)

above sea level. Opposite us under the northern rim in the direction of Cape Royal, to which the distance is a little over 8 miles, the rock walls shimmer in red, red-yellow, and grey-violet tones, and before the solid front rise picturesque pyramids, temples, and pagodas, like the ruins of an enchanted city built by great architects. Behind us, the forest stands guard, dark and majestic. The only sound that disturbs the silence is the rustling of the wind in the crowns of the trees. When one considers that this tremendous work of excavation has been accomplished by unceasing destruction, one sits and waits to hear the reverberation of a race when one of these limestone columns rising from a relatively small base to a dizzying height finally reaches the possible limit of equilibrium and falls like the Campanile into Venice. But everything is quiet. We don't even hear the rattle of a stone that has come loose and, according to the inexorable command of the law of gravity, tumbles down. And then I take one stone myself, as big as a fist, and hurl it over the edge. I don't hear its fall. It seems to disappear and be swallowed up in a bottomless gully. And yet the work of decomposition is constantly going on. You then gain a certain respect for the time it took to create the sculpture we now admire.

Not only in the depths where the Colorado River flows, but also here at the edge, it is primarily running water that works, and this work only takes place after rain or when the winter snow melts. Violent showers give rise to raging, rushing torrents, whose extraordinary power is increased by the boulders and gravel they bring with them. The undermined projecting rock parts, which are finally broken off by their own weight and as a result of cracks, plunge into the depths, broken into a thousand pieces and millions of shards, pulverized, carried down into the valley by winds and water and finally with their fine dust give the river the turbidity that gave rise to the name Rio Colorado. As a result of the limestone's ability to dissolve in water to a certain extent, caves, hemispherical niches and alcoves appear in the vertical walls. These also entail undermining, which greatly contributes to the verticality of the canyon walls in the upper regions below the rim.

Now a few words about the view itself and about the remarkable points in the Grand Canyon, which are within sight from Grand View Point. At a distance of 16 miles to the northeast, a marked promontory, Cape Solitude, juts out from the Kaibab

limestone slab of the Painted Desert and hovers directly over the left or east bank of the Colorado River. The incredibly steep precipice which here limits the Painted Desert is called, right up to Cape Solitude, the Palisades of the Desert, and north of it, in Marble Canyon, the Desert Façade. This wall, which in projection is little more than half an English mile distant from the river, and, in contrast to other parts of the ridge, is but little incised, is pierced immediately north of Cape Solitude by the coming in from the east the tributary of the Little Colorado River, whose gaping canyon gate I would later see from the west. In its narrow corridor, Marble Canyon, the Colorado River is thus enclosed between the Desert Façade to the east and a range of lesser massifs to the west, Maigosa [*sic*, Malgosa] Crest, Kwagunt Butte, Awatubi Crest, Chuar Butte, Temple Butte, and Lava Butte. Further south on the same side, The Basalt Cliffs can be seen.

Northeast of Grand View Point we see in the deepest part of the Grand Canyon the point where the narrow granite corridor borders the rocks of the Unkar group. In the northwest, however, the dark granite walls on both sides of the river support the relatively less steep slopes of the Tonto group. Among the deposits of the Unkar group, the present river valley is more open than in the granite, and cliffs of quartzite, red shale, and gray limestone rise on its banks. Here and there masses of basalt in a liquid state have penetrated and solidified. At such a point asbestos has been formed by the heat, and below Grand View Point we also see on the north side of the river a small valley, which bears the name Asbestos Canyon.

Arguably the most famous and most visited point, Grand View Point juts north from the Coconino Plateau and the Grand Canyon's southern rim. To the west of that are a series of other headlands, all accessible by horse or on foot. Counting from El Tovar, they are eastward as follows: Grandeur Point and Yavapai Point, both near El Tovar and connected by a causeway; Yaki Point, whose lower continuation swells to the outcrop O'Neill Butte; Shoshone Point with Newton Butte and Lyell Butte in front. Between all these ridges, lacking the Coconino Sandstone and Kaibab Limestone, and consisting of the older Supai and Redwall formations, lie short, steep canyon valleys, each provided with a "creek["] or drainage furrow for rainwater, and sometimes carrying a small, ever-flowing trickle from its source. Then follows Grand View Point,

in front of which to the north and quite close to us we perceive the peculiarly built Horseshoe Mesa, faithfully resembling a horseshoe with the arch facing south. It belongs to the limestone of the Redwall Formation. My cicerones show me and with the binoculars I can perceive the small path winding in countless bends, Berry Trail or Grand View Trail, which towards the northeast and north leads to "Hästkoberget"⁸ and thence in vertiginous ledges to the path which, parallel to the river and along its southern bank, on the sandstone slopes of the Tonto Formation, runs westward to the Indian Garden and Hermit Cabins, two well-known places that we shall soon visit. At Horseshoe Mesa there is a copper deposit.

Also to the east of Grand View Point a series of promontories and outcrops jut out to the north. We note within sight Three Castles and Coronado Butte, the latter with all the formations visible, from Tonto to Kaibab. In its Redwall walls we see the recesses formed by the dissolution of the limestone by the water, the previously mentioned bowl-shaped niches and caves. What remains of limestone on Coronado's Crest resembles the form of a recumbent camel, a grand monument on a plinth of overwhelming dimensions.

East of that we have Moran Point, Zuni Point, Papago Point, and Pinal Point, all with tremendous cliffs and ledges and terraces down to the river nearly 5,000 feet below them. Next comes Lipan Point and finally Navaho Point or Desert View, the last before the Palisades of the Desert begin their stretch to the north. In the imposing row of the Palisades we notice only one promontory right up to Cape Solitude, namely Comanche Point. This is easily recognizable by its rise, similar to the prow of a ship, and by its ledges jutting out in front of the surrounding palisade wall, reminiscent of a gigantic petrified waterfall, and finally by its location in the longitudinal alignment of the Grand Canyon and its nakedness due to no vegetation. Of the Palisades I have made several drawings, and in all of them Comanche Point appears very distinctly.

What chiefly captivates the visitor at Grand View Point, however, is the absolutely fantastic scenery, unsurpassed in wild and magnificent beauty, which meets his gaze to the north. There we see in the background the huge block of the northern plateau

⁸ Hästkoberget is a scenic viewpoint in Örebro county, Sweden.

country, which is separated from the Kaibab Plateau by Bright Angel Canyon's deeply incised valley and which is called the Valhalla Plateau. It is connected with the former through a relatively narrow neck, a headland with chasms on both sides. On its southern front, the Valhalla Plateau itself is quite deeply cleft by the valley of Clear Creek. To that part of the plateau, which is situated to the east of this valley, I would later undertake one of my most rewarding excursions. Its southernmost point is the famous Cape Royal, which we see opposite us, almost to the north, somewhat to the east. The plateau's farthest eastward projecting promontory is Cape Final.

From Cape Royal extend towards the south two spurs of the most curious shape, resembling forked dragon tongues or the decoratively whimsical flames with which the Chinese in sculpture, painting, and textiles are wont to surround their dragons. On the eastern of these spurs are noted Freya Castle, the beautifully pyramidal Vishnu Temple with the Tonto Slopes at the bottom, on these the vertical Redwall walls, above them the ledges and terraces of the Supai Group, and at the top the Coconino Sandstone with its cap of Kaibab Limestone — further, southeast of the Vishnu Temple, the Rama Shrine, missing both Kaibab and Coconino, and southwest of that Krishna Shrine. The southwest spur from Cape Royal bears the stately massif, which has been called Wotan's Throne, and which is situated west-northwest of the Vishnu temple. This massif is visible far and wide. Southwest of Wotan's Throne we see the wild steep cliffs, which bear the poetic name Angels Gate.

West of Clear Creek we discern the great depression known as the Ottoman Amphitheater, which is bounded on the north by the Valhalla Plateau with Obi Point, and on the west by the aforesaid stately pyramids, which proceed from there and bear the names of Devas [*sic*], Brahma and Zoroaster. West of them we again have Bright Angel Creek. We have already heard that these three temples are crowned by the highest horizon, namely, the Kaibab Limestone, which on the middle of them still remains to the height of 400 feet.

Like detached forts around a fortress thus rose in a grandiose confusion of languages and an imposing mixture of religions, the Valhalla of the Nordic gods and the temple of the Indian gods and Zoroaster are in fraternal association. We can take solace in the fact that at least the Thor Temple west of Cape Royal and Wotan's Throne

southwest of it really belong better in this neighborhood. But for a northlander, who from his early school years has become fairly familiar with the divinity of his fathers, and for an Asiatic traveler, who has seen the sacred fire burn in Zoroaster's temple, who has spent weeks by the lake called the soul of Brahma, and who has wandered around Shiva's paradise on Kaila's top, this sounds, just to the sound of the names, as a pompous but otherwise arbitrary nomenclature, anything but genuine. One wonders why these names of the gods of the oldest religions have been tossed about each other right here, on American soil. On one and the same massif we find Odin, Thor and Freya in association with Vishnu, Krishna and Rama. The Egyptian divinities are nearest neighbors to China's great religious teachers. In no other part of the world has such a geographical act of baptism been undertaken with so little piety. Such names as Tovar, Powell, Navaho, Hopi, Kaibab, Coconino, etc., are fully in place. Newton, Lyell, Huxley and other great naturalists may well have their monuments in stone on the shores of the Colorado River. Names that are indicative of forms, e.g. Scorpion Ridge, Three Castles, Horseshoe Mesa, for colors such as Red Canyon, for minerals such as Asbestos Canyon, for rocks such as Basalt Cliff, are the best; they have a meaning and a soul. But those who have been taken from the religious life of foreign peoples and continents should be just as ruthlessly exterminated as those that — God knows by what genius — were put there. Where they can be replaced by genuine, characteristic and descriptive Indian names, such should be introduced in place of the present ones. And where this is impossible, let the natural temples in desolate majesty point their pinnacles to the eternal stars — without all earthly or heavenly names.

It is 6 o'clock in the afternoon, and the tableau, which spreads out before us from El Tovar, grows every minute in captivating splendor. It is the hour of the red tones, the evening blush and the sunset that has struck. The vertical giant walls appear in bright, healthy, ruby-red tones, sharply drawn against the darker grey-green on slopes and escarpments, which are not directly hit by the sun's rays. From the smooth outline of the northern rim, the evening shadows stretch their sharp-edged wedges between temples and pagodas and join in the valley depths with gloom over the corridor of the Colorado River. I am sitting on one of the benches on the terrace in

front of the hotel and am separated from the abyss only by a low, cemented parapet. My view includes only the quadrant between the northwest and northeast, the rest being obscured by the two nearest outcrops, Maricopa Point and Grandeur Point. Deep below me, to the north-northwest, rises a peculiarly shaped point, bearing the significant name of The Battleship, forming a continuation of Maricopa Point. It casts its dark shadow over most of the slopes on the south side of the river.

The surrounding lighting does not last long. You would never have time to paint it, because it turns into new, deeper shades with every passing minute. The crimson tone darkens to rose red and this too turns into brown and finally into a diffuse colorlessness. By then the sun has set and night is regaining its dominion over Arizona.

I had dinner with my usual friends, who never tire of giving me new information about nature and life around El Tovar. They tell us that with the place's refrigeration machines ten tons of ice are made a day and that whole trains of water are brought to the hotel daily from a distance of 160 miles. This water was not only used for drinking and cooking, it was also drunk by 130 mules and a significant number of horses and was used for washing, bathing, irrigation and much more. It's quite an extensive apparatus required to serve the human migratory birds that alight on El Tovar. In 1921 the number of visitors was 57,000, in 1922 85,000 and even during the current year the number was on the rise.

At 8 o'clock every evening, a lecture about the Grand Canyon illustrated with diagrams, tables and photographs is held for the orientation of the guests in El Tovar's Musical Hall. Such a preparatory course is very useful and valuable. In the main, the topic is always the same, which matters less, as the audience constantly changes. Time after time, other talks and entertainments were also offered for those who could not live without cinemas or music, and for whom the magnificent spectacle unfolding in the depths beneath them was not enough.



Eftermiddagsskugga i Bright Angel Canyon. Från El Tovar.

Afternoon shade in Bright Angel Canyon. From El Tovar.
(p. 97 in the original edition.)

TO THE HERMIT CABINS.

At eight o'clock in the morning on June 16, it felt really cold and as late as 10:30 it was only 12.2° C. The [number of] tourists was above average, sitting at their breakfast tables, packing their boxes of provisions and getting ready for their various excursions by car or on horseback. The sky was almost completely covered with clouds and the wind was strong. With Messrs. Birchfield, Kemp and Bryn and the driver, our cowboy Sandy MacLean, I got into a car and drove the Hermit Rim Road, which I already knew, past Pima Point through the woods to a couple of small log cabins, the Hermit Rest, and on to the point known as the Head of Hermit Trail. From there starts one of the two commonly used trails that lead down to the bottom of the Grand Canyon and to the left or south bank of the Colorado River. Our nearest destination is Hermit Camp, as the crow flies, just under 1½ miles north of the starting point. But when you are told that the trail is 7½ miles long and requires 3½ hours in the saddle, you can understand that it must be twisty and runs in all directions. At first you ride towards the south and southwest, then turn towards the north and northeast and finally towards the west and south. The path takes us in turn through the five common formations, the Kaibab Limestone, the Coconino Sandstone, the red sandstone and shale of the Supai Formation, the Redwall Limestone and finally ends up on the more moderate slopes of the Tonto Group. You thus have the opportunity to get up close and personal with the various rock types, which until now have only been seen from above the rim. With good eyes or with the help of binoculars, from the Head of Hermit Trail you can see the destination of today's ride, Hermit Camp, 3,600 feet (1,097 meters) below your feet. It seems quite close. Gliding with an airplane, you would be there in a couple of minutes. It is more difficult to ride down the steep slopes on a mule, over whose head you can sometimes do a salto mortale⁹ on the worst slopes if your knees are not secure. But the mules are remarkably reliable and never fail. They

⁹ Italian; a risky, possibly lethal somersault.

just have their kind's unpleasant tendency to walk on the very edge of the precipice. And if a mule is not "broken," i.e. tamed and used to the trail and its surprises, all it takes is a boulder, a bush or an oncoming hiker for her to shy away and with the speed of a steel spring throw herself to the side. In the fierce wind that slammed and whipped through the clutches of rocks, Sandy advised us not to let our hats fly off, because in that case, he assured, the mules would go a little crazy. For my part, I had nothing to complain about, but Sandy's own mule was cheerful and frolicking on the slightest occasion.

However, the animals having being kept in readiness at the Head of Hermit Trail, we mounted and began the descent at a quarter past 11, the temperature having risen to 13.5° C. The trail leads along the right or east side of the cut known as the Hermit Basin, a small side canyon to the Colorado River. Right from the start, the plunge is pretty decent. After half an hour we have descended 800 feet from the rim, passing "The White Zigzags" and the Kaibab Limestone, and making our entrance into the sandstone beds of the Coconino Formation.

After another ten minutes we have descended 1,100 feet and ride between sparsely growing junipers and pines. Lizards (horntoad) [*sic*] scurry over the stones and here and there a "yucca" appears on its long stem, in English called "candlestick of the Lord."¹⁰ At each turn of the path, the view changes. You sit with rapt attention at every moment; you are amazed at the sight of these picturesque, wild red walls that rise up beside the path and you gasp sometimes when you only have one foot to the edge, from where it descends steeply or vertically towards the bottom of Hermit Basin.

At the side of the path stand a couple of small cabins, which provide shelter for the "Hermit Basin trailkeepers." In innumerable switchbacks, often not more than twice the length of the mule, we descend into the secrets among the red sandstone layers of the Supai Formation, laid bare by the restless erosion of the Colorado and Hermit Creek. The latter, the bottom of which we are approaching, has in its deepest part a drainage, Hermit Gorge, which can now be seen on the left hand side.

¹⁰ *Hedin's footnote*: Prof. Carl Skottsberg informs me that Yucca in Swedish can be translated as palm lily or tree lily and that its common popular name in America is Spanish dagger.

Our path leads onward, indeed sometimes also under projecting roofs and moldings of red sandstone, and at every new cliff corner that we ride by a new perspective of enchanting architectural beauty opens up. How often did one not want to stop to draw a sketch and with the brush reproduce these imprisoning chambers in the interior of the earth, which open only to the outside canyon's endless abyss.

Thorny bushes and other plants thrive here and there between the stones, but trees are sparse and become increasingly rare down the valley. The wind tosses and howls in the clutches of rocks; sometimes you wobble in the saddle. We ride past a group of tourists. The dust swirls with the steps of the mules, and clouds of gray dust dance about us as long as we ride through the gray limestone, but they change to red after we make our entry into the red sandstone.

We rested at a quarter past 12 at Santa Maria Spring. There is a small wooden shed with a green roof, under which people sit down on benches around a table and take out the cartons stored in their saddlebags containing sandwiches, eggs, cakes, apples and oranges. The spring, whose fine warm flow is the same in all seasons, runs in the interior of the shed, and from its reservoir the water is led on to a long tin trough, from which the mules can drink to their heart's content.

At Santa Maria Spring we have dropped 1,600 feet from the rim, and the temperature has risen to 19.5° C. You feel that you are on your way to a completely different climate than up there; the wind is getting warmer and grumbles and whistles in the outcroppings of the rocks. Right here we are separated from Hermit Creek by a backdrop of flatly drawn scenery.

After half an hour's lovely rest, we sat back in the saddles. For nearly twenty minutes we stay at about the same level, dropping to a mere 1,700 feet below the rim. We ride on the gently projecting strata of red sandstone as on a shelf, where the path sometimes even leads upwards, and where we double picturesquely projecting corners, and by the winding path are carried into wedge-shaped incisions between high and wild scenery, to immediately return to a sharply sculptured promontory like a buttress on the wall of a church. And like just now, at every such bend it is as if a curtain was pulled aside to show us a new perspective of astonishing beauty. In front

of us in the north, the view is not bad either! Through Hermit Canyon's mouth we see in paler tones the large Canyon and in the distance its vertical north wall in reddish and grey-green tones and dark, horizontal bars of shadow.

At 2:30 we have descended steadily 2,000 feet and passed the ridge of the immense spur, whose extreme, vertical promontory rises directly south of the Hermit Cabins and resembles a giant's grave. For a while it forms a shadowy screen east of Hermit Creek, but to the north the view is clear from Lookout Point, where a small side trail to the left leads to a "waykeepers' cabin." Time after time, the height figures are indicated on the side of the trail, either painted on small pieces of wood, or on flat, easily visible boulders. You therefore always know how much you have sunk and how far is left to the Hermit Cabins.

After another ten minutes we ride past Last Chance Spring and a moment later have a vertical, partly overhanging rock face several hundred feet high on the right hand and the equally vertical plunging chasm, the Redwall Limestone, on the left. We have dropped 2,100 feet and have 1,500 to go.

Now Hermit Camp appears clearly on the left and is constantly, with a couple of small interruptions, within sight. It shines like an oasis, a healthy green patch in the gray-yellow landscape down there, where the less steep waves of undulating terrain in the Tonto group arch their curving ridges and fall against the dark regions of the granite. We see sharply and clearly the small white cabins with their green roofs and the bright, winding path that leads down to them.

At Breezy Point we have descended another hundred or so feet, and now we are at the mighty, 500-foot vertical Redwall, which would offer a perfectly hopeless obstacle in our way if its wall had not been interrupted in the innermost wedge by an incision through the cross-slope of talus. On its surface the path runs in innumerable short, steeply crossing, sharply angled zigzag bends called Cathedral Stairs, although one must look for a cathedral with such uncomfortable stairs. When you reach the beginning of this dizzying descent, you think that the trail ends and that the way is lost over the edge towards unfathomable depths. Sometimes, when you find yourself

in one of these corners, you don't see the ones below you either. Despite the trust placed in the safety of the mules, people here prefer to go on foot.

Unfortunately, the wind was so strong that only a couple of pictures could be taken by our small group. Otherwise, it means that I have to recall a view or a mountain section to immediately get a memory of the ride. But then I got a whole bunch of photographs from the Grand Canyon, even if they didn't always connect to my paths and my experiences. However, a couple of pictures were taken in and below the "cathedral steps."

After leaving behind Cope Butte, a narrow and sharp outcrop of Redwall Limestone facing north and after covering the steep cliffs, "The Long Drag" begins, where we slowly descend to the undulating terrain of the Tonto Shale. A winding part of the road is called "The Serpent," and beyond it we have descended 3,100 feet. In the following seven minutes we descend another 300 feet. Here cacti grow among fallen boulders. A few more minutes and the most breathtaking view opens before us to the south through the wild, narrow, dark canyon of Hermit Creek. And finally we arrive at the goal a few minutes before 3 o'clock.

Thus in the 3½ hours' ride we had descended 3,600 feet (or 1,097 meters) and found ourselves at Hermit Camp 3,200 feet (975 meters) above sea level.

Hermit Camp or Hermit Cabins is a whole small village in the deep wastelands of the Grand Canyon, and in this "village" the scepter is held by Mr. Poquett and his wife, whose name is Jonsson and who was born of Swedish parents, but never learned the language of her homeland. The father is a 64-year-old farmer in Wisconsin. Mrs. Poquett was almost doomed after a severe illness and operation, but since she had now spent two years at Hermit Camp she has recovered her health, which she attributed to the divine climate.

Whoever falls into the hands of Mr. and Mrs. Poquett suffers no hardship. I spent a couple of unforgettably lovely days in their little oasis. Above where I was riding, especially headlong down vertiginous steeps, I felt quite stiff at first, but soon limbered up again.

The small village consists of Poquett's cottage with a kitchen and, in connection with it, the dining room, where the guests take their meals together. Furthermore, storehouses are noticed, which are always well supplied and from time to time are filled by small caravans that are sent down from El Tovar. Chicken, preserves, bread, fruit and soft drinks, etc., are the most important ingredients. The former were on site, and 400 chickens were now fattened to be ready for the table in a month. A kitchen garden is carefully tended and some shade is afforded to the dozen small houses called Hermit Cabins by sparse groves of poplars. The calcareous soil is infertile and you have to use fertilizer to make the seed grow. Incidentally, it is the irrigation water from Hermit Creek that conjured the small oasis out of an otherwise almost desert-like land.

You have a telephone connection with El Tovar and can therefore requisition new goods on time. Each group of travelers that descends to Hermit Camp has its guide and he brings a mule loaded with fresh meat and ice. At the beginning of the year, 12 tons of coal were brought down, which was carried by 20 mules daily for a whole month. The laundry, sheets, tablecloths and the like are sent up to El Tovar with the returning party.

Immediately below the dining room are the tourist huts, [in English] "the cabins," in a row with a kind of shared veranda — or corridor in front. There is a barrel with a spigot, always filled with fresh drinking water. In the shower room, you can cool your body externally whenever you like. Just in front of the huts we find "the rest room" equipped with a veranda, overlooking the most beautiful view in the valley. Comfortable easy chairs are available there, and with your feet on the rail you like to dream away an hour in the sunset.

Another party of tourists, two young people each with their girl from Los Angeles, had already made themselves at home in the place, and while they readied to go down to the Colorado River, I considered this my residence. I had decided to stay for a couple of days in order to be able to calmly digest the new paintings of wonderful beauty that rolled up in all directions, and not to, like other visitors, simply do a quick walk down to the river.

My cabin contains a room with a bed, chest of drawers, dresser, table and a couple of chairs and a stove — because even in winter the Grand Canyon is visited, if only by a small number of travelers. I have a porch similar to a chicken coop because it is fitted on the three outer sides with mosquito netting of the finest steel wire. You are thus protected against flies, mosquitoes, moths, rattlesnakes and other creatures that have made themselves at home in the oasis. On three occasions, Mr. Poquett had killed rattlesnakes in the area. Even scorpions can be found, although strangely enough they do not appear until the rainy season at the end of July and in August. There are two beds on the veranda, and it goes without saying that this is where you spend the night during the warm season.

In lovely summer weather (25.2° at 4:30 and 24° at 6), under a remarkably clear and turquoise blue sky and with the noisy whistling of strong but mild gusts, I passed my first afternoon at the Hermit Cabins. At first Mr. Poquett exhibited his menagerie, which was of a very unassuming but most unusual composition. Namely, it consisted of some large white rats, albino, with ruby-red eyes, two black-pawed cats and a yellow rat dog, Rock. They lived in the best harmony with each other, the cats walking cautiously around with the rats on their backs, and Rock showed not the slightest temptation to make use of his terrible superiority over the latter. However, they did not seem to trust him, because when he came and sniffed at them, they sought to bite.

Then I took a seat on “the rest rooms” porch and watched the stately mountain landscape that now shone in red, light tones, where slopes, crests and peaks were struck by the rays of the setting sun and otherwise melted together in an ever denser shadow. To the northwest I had the mighty spurs which issue from the Mesa Eremita, part of the southern rim, and whose taluses of gravel plunge to the granite corridor of the river. In the north-northwest, on the other side of the Colorado valley, rises a beautifully drawn massif belonging to the northern rim and the area around Mencius Temple. To the north is seen a peak, called the Cathedral Spire, which really resembled the ruin of a church with tower and nave. Behind me I had the brilliantly illuminated part whose highest point is Pima Point. There now appear in intense golden yellow tones two incredible steps in limestone, below which three more steps in brick red sandstone follow. The steps themselves are vertical, but the spaces

between them are steep slopes, bearing vegetation and quite strongly varying in green. On the lowest slope visible from here, our path goes below the Cathedral Stairs.

Nevertheless, the most beautiful of all, which is within sight of Hermit Camp, is a rock outcrop eroded in strong and architecturally perfect lines and forms, the root of which in the southern rim may be said to be located near the Head of Hermit Trail. When viewed from the side, from the east or west, it appears as a rather elongated shield. From Hermit Camp, however, it is foreshortened and resembles a wonderfully picturesque spire, erected on a pyramid with huge steps. Early in the morning, the narrow gable is brightly lit by the sun, while the entire western long side merges into dense shadow, where all fine details disappear. This magnificent mountain massif appears no less enchanting in the afternoon, when the entire western long side is bathed in a purple glow from the setting sun and the north-facing gable is in shadow. Then this is where the fine vertical sculpture of the steps is engulfed in darkness. Only when the sun has set and night has come does the entire monumental sight disappear. Otherwise, at all times of day and in all lighting, Hermit Peak occupies one of the foremost places among the erosional phenomena in which the Grand Canyon is so rich.

At El Tovar there is a so-called Hopi House or a house built of adobe in pure Indian style. Its task is simply to give the tourists an impression of how the Hopi Indians live and how their ancestors lived in ancient times. A couple of Hopi families had set up their lodgings on the lower floor, where they cooked their food, cradled their babies or made all sorts of small things from Native American handicrafts. In the yard in front of the house some Indians performed their old dances every afternoon, and were dressed in all the warlike armor we remember from Cooper's stories. The tourists circled around them or watched them from the roof of the Hopi House. After the program was finished, the Indians went about collecting their wages, and they seemed to make quite a good profit from this daily recurring performance.

Now my hosts and friends had found a way to prepare a successful surprise for me, which was to start this very first evening. The Hopi chief at El Tovar, Joo Secakuku or [in English] "The Yellow Feet," had been ordered, after performing his usual afternoon dance in the courtyard with three of his tribesmen, to come down to the

Hermit Camp and dance and sing for me. They came too. They had run in 1½ hours the same distance we rode in 3½. It wouldn't be an art to gain time if you had to use shortcuts that cut off the wild curves. But this is strictly forbidden, because stones could come loose and roll down, injuring other hikers. "The Yellow Feet" and his companions must therefore follow the trail and all its curves. Their clothing did not hinder their movements, for they had only a bandage around their foreheads, a thin garment that vividly resembled swimming trunks, and moccasins. They ran at an even and safe pace, breathed without straining and also appeared in excellent condition.

First they had a very thorough dinner, which occupied them for a full two hours. They ate and drank, talked, laughed and sang and made a terrible noise. Guided by a lantern, at 10 o'clock in the evening we went down the slopes towards the bottom of Hermit Creek, like a narrow-holed side valley to the Colorado, of which I have spoken before. Thereby we pass the mark whose number betrays that we are 4,100 feet below the rim. And from thence we have but 70 feet to the very gravelly bottom of the ravine, where an immense fire was already blazing and throwing its red glow over the vertical or overhanging wall of rock, which formed an effectual background to the spectacle we were now to witness.

On a small open spot on the bank of the creek and surrounded on all sides by the impenetrable darkness of night, the Indians danced the dances of their ancient times and their memories. In the firelight they looked fantastically wild and genuine. Their dance seemed enchanting, fascinating. You could think you were transported to the time before the discovery of America by the whites, when the redskins lived free in Arizona and on the banks of the Rio Colorado and had no enemies other than neighboring tribes. There was an irresistible sadness about this wonderfully picturesque view, and one had an oppressive feeling of sympathy for these last ruins of a proud and glorious people, suffocated, crowded out, and dying away. They accompanied their singing with a drum and a couple of rattles. In impeccable English, Joo Secakuku explained the meaning of the songs and dances. Everything went so fast that I didn't have time to follow along in the notebook. Here are just a few hints, which connoisseurs of the dying Indian culture must find more than meager.

The first dance, which Joo called "kachina," is dedicated to the forces of nature. From all his explanations it was evident how deeply the reverence for nature and its secret powers is still rooted in the minds of the Indians, though many, probably most of them, by contact with white Christendom have softened their confidence in the religious views of their fathers. However, there are still supposed to be clan songs, which, according to what Joo told us, are not allowed to be sung in front of strangers, only within the tribe. As for himself, I got the impression that he still clung to the old faith. That every afternoon at El Tovar and this night at Hermit Creek he could bring himself to appear in dance and song before strangers was only and solely for the sake of income. It would not be surprising if the last remnants of the weaker race allowed themselves to be swept away resistlessly by the current called the pursuit of dollars and on whose shores the white Christian has erected a temple to his chief deity, Mammon.

In the glow of the red flames and with red fields of color stretching across the rock walls above us, the Indians then performed the "spring dance," a tribute to the four cardinal points and to the yellow clouds from the north, the green clouds from the west, the red from the south and the white from the east, who come traveling with rain and give the people grain and fruits to live on. The dancers' skins were copper-brown, they were well-built, hardened and weather-beaten, but now they wore their characteristic costumes of variegated colors, their jewelry and necklaces, their headbands with feathers and their beautiful implements dating from an age that disappears beyond the obscurity of fairy tales.

Rainfall also plays an important role with the people of Eastern countries. In certain dances and songs the Indians seemed to lay down a pious incantation for the inducing of rain, an insistent appeal and supplication to the spirit powers who had the power to rule over it. In the "butterfly song" they sing about rain clouds with lightning and thunder, about fertilizing showers that cause everything to sprout and watermelons to swell. Then boys and girls go dancing and sing their songs of thanksgiving for the prosperity and happiness that the rain has given to the children of men. Joo tells us that "the dance of the butterfly boys and butterfly girls" expressed the joy

that the young and the old alike felt that the yellow, green, red and white clouds were benevolent and bring blessings.

With a powerful voice and a broad smile, he gave a small speech before each dance and song. He stood there royally straight and confident as a chief befits and he spoke with strength and conviction as if he had wanted us to understand the deep meaning of the achievements and what those words and movements meant to him and his people. His eyes shone like glowing coals, his teeth like snow, his face and arms like copper. In his voice I still thought I heard an undertone of sadness. He must have had an atavistic sense that this evening and the whole environment was genuine. Among such deeply cut and hidden valleys his fathers might have lived. The same fires had burned at campsites where they performed their dances and let their songs echo. The same red glow in the distant past had shifted over the rock face like the blush on a girl's cheek. And the stream, which now bore the foreign name of Hermit Creek, still rippled tonight as melodiously as in the days of yore, when the redskins in undisturbed freedom hunted mountain lions in the ravines and buffalo up there on the prairies. "The Yellow Feet" rejoiced in the world of memories that rose like apparitions out of the darkness around the fire. He spoke with rapture, he sang with warmth and he danced as if the long stony road from El Tovar had been nothing to his footsteps.

Still he and his comrades stood out as pitch-black silhouettes against the flames, then they appeared in all their relief when they were half illuminated by the light, half obscured by the shadow, then their figures stood bright and red against the dark background and then their shadows played like giant ghosts on the cliff face.

This dance is not graceful, soft and elegant like the women's in Samarkand, Delhi or Kyoto, or like the male dances in the Caucasus. It is very angular, wild and fast. The Indians sneak, crouch, cower like cats, rise, lunge forward, swing around, and utter piercing howls. If one follows the oriental dances in dreams, gets drunk and is carried away to unknown lands, one is captivated in another way by the Indian dance. One sits in the greatest anticipation, not missing a beat and always wondering what will come next. In Ladak and among the Affridis and other North Indian peoples one can witness dances which resemble these. But the incantation dances in Tibetan classes

are of a different kind. There they stand dancing and jumping on either the right or the left foot, spinning around so that their mantles resemble mushrooms, and striking and fencing with arms and legs.

The chief of the tribe and the high priest set the times for the annual dances, which depend on the position of the sun and the phases of the moon. Joo had no idea how right he was when he exclaimed:

“Our dances are serious, yours are just a game and a pastime.”

The Indian dances have a meaning, an intention and a goal. They are a religious act, a means of worshiping and appealing to nature and its unknown powers. The “buffalo dance” of the Hopi Indians, which was now performed, and which otherwise belongs to autumn, means a prayer for rich game and abundant snowfall during the coming winter, because the tribe’s villages and farms are located in the Painted Desert and depend for their prosperity on the rainfall and the availability of water. The dancers here are dressed as buffaloes with skins and horns and make leaps and movements reminiscent of buffaloes. After the various services have been completed, people march to the shrine to offer sacrifice and worship to the forces of nature.

After the “eagle dance” followed a “war dance,” to which Joo added information that the Hopi Indians were peace-minded, but that in ancient times they fought bravely in self-defense if they were attacked. Therefore they also had their war songs. But ask the Navaho and Apache Indians, he added, if the Hopi people are not peace-loving.

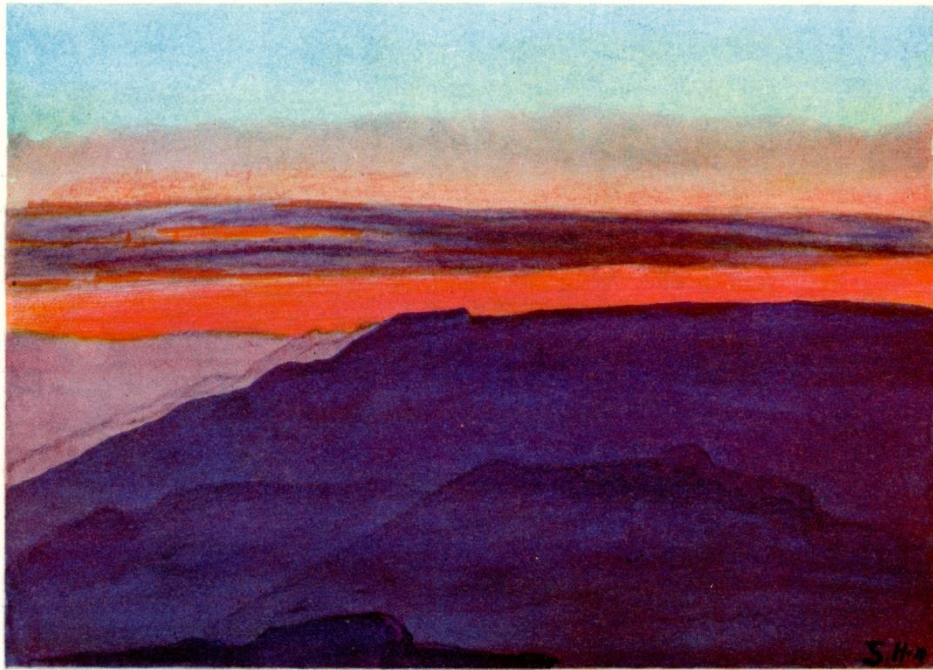
He spoke of religious beliefs and practices, which are obscure to us, of spirits and their sorcery power, of the “snake dance,” which strangers rarely get to see and which is not performed outside the boundaries of the “reservation.” The dancers have live snakes in their mouths. In connection with that, he also spoke of a kind of brotherhood called “the snake killers,” which is highly regarded and of which he himself is a member. Finally he sang the “harvest song,” which seems to have an erotic content. Boys and girls are out in the fields to cut the corn. Then see the rain clouds rise and a storm is about to break loose. All hurried away to seek shelter in a nearby cave, in the

mouth of which they lit a large crackling fire. Inside the "smoke cave" they pass the time making love and feeling very happy.

Joo and his comrades danced and sang for an hour and another before explaining the program overview at midnight. No fatigue could be noticed in them as they scurried like alpine goats up the hill and disappeared into the darkness. The following morning at 6 they would borrow our mules and return to El Tovar, which would be brought back by Sandy.

We ourselves left the fading embers and followed the trail of the Indians up to Hermit Camp. The climb of 570 feet was felt in my post-ride stiff knees, and it was with indescribable pleasure that I went to rest inside the wire mesh on my first night in the depths of the Grand Canyon. For a while I lay and listened to the brays of the wild donkeys. They are called "burros" and were left behind some fifty years ago by some miners. They managed on their own, drinking from the river, streams and springs and having enough pasture. Now their number is estimated at about 3,000 and they roam in small herds, but only on the south side of the river. No one harms them, yet they are almost as timid as the wild asses of Tibet. Capturing and taming them is not considered worth the trouble, because they are degenerate through constant inbreeding and are unfit for work.

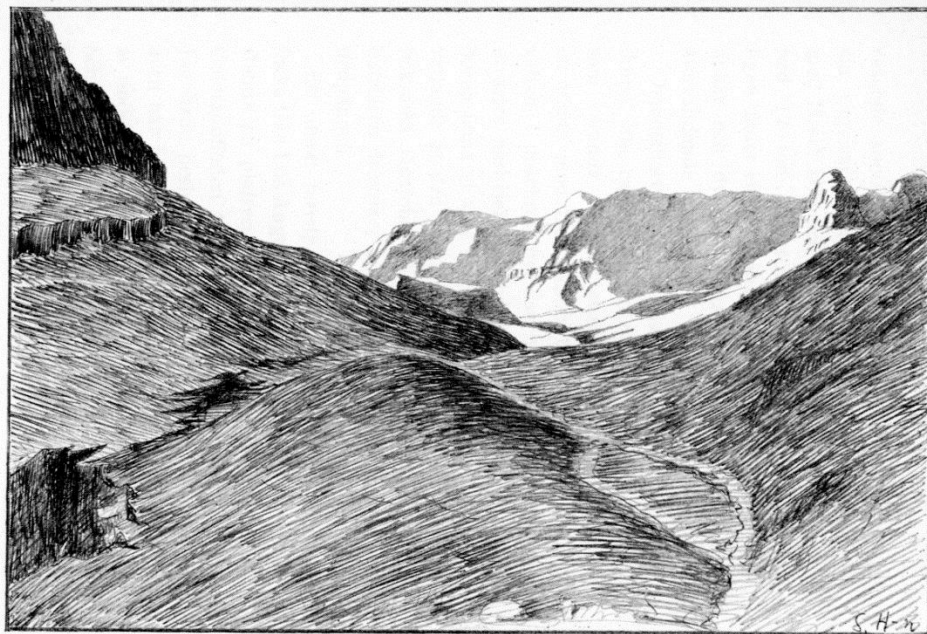
There was no need to complain about the heat, even though we were in the middle of June. At 12 at night it was 20° C., at 6 a.m. on June 17 16.1° C., when it even felt cool, at 12 noon 25.5°, at 3:30 29°, and at 4 32.5° C. I used the day for a few short rambles, the execution of sketches and the reading of a couple of works on the Grand Canyon brought with me. My traveling companions Birchfield, Bryn and Kemp returned to El Tovar, and in their place a German professor, Leede, arrived from Seattle with two ladies.



Ett moln över aftonrodnaden. Från Navaho Point.

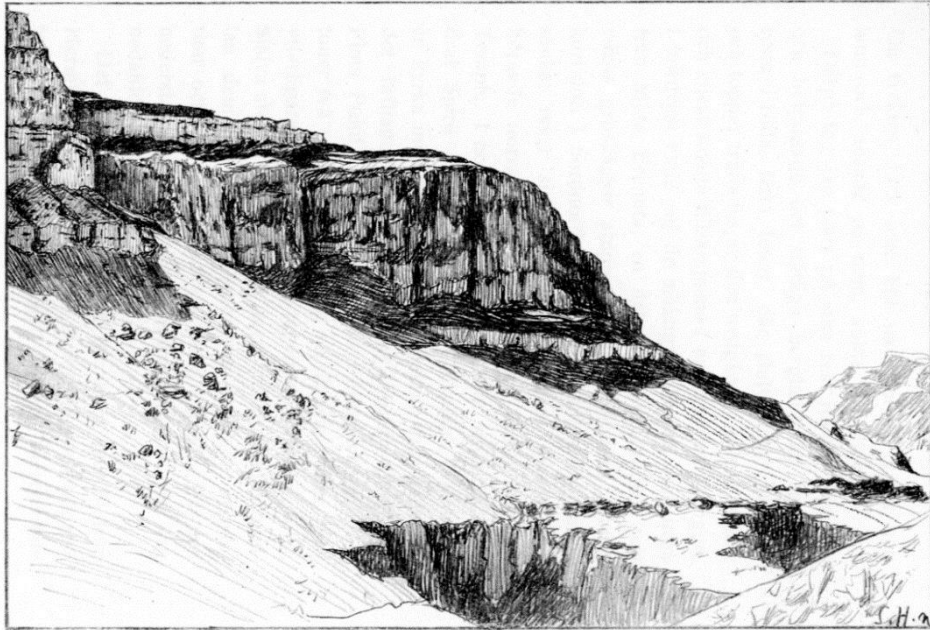
A. BÖRTZELLS TR. A. B. STHLM

A cloud over the evening blush. From Navaho Point.
(facing p. 112 in the original edition)



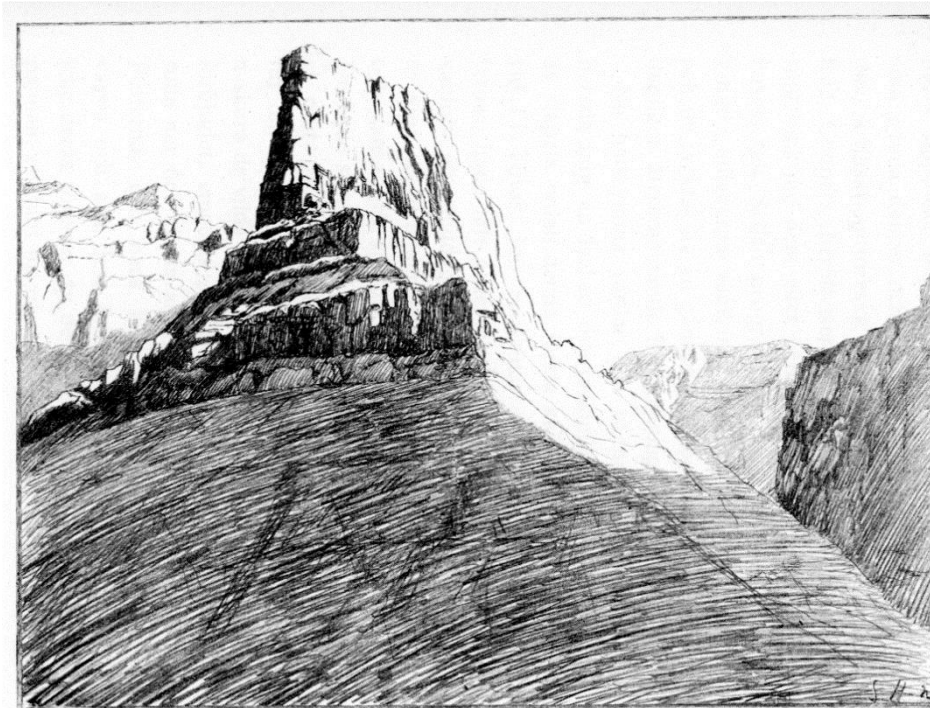
Mot NNW från Hermit Camp. Cathedral Spire längst till höger.

Towards NNW from Hermit Camp. Cathedral Spire on far right.
(p. 115 in the original edition)



Mot väster och NV från Hermit Camp.

To the west and northwest from Hermit Camp.
(p. 119 in the original edition)



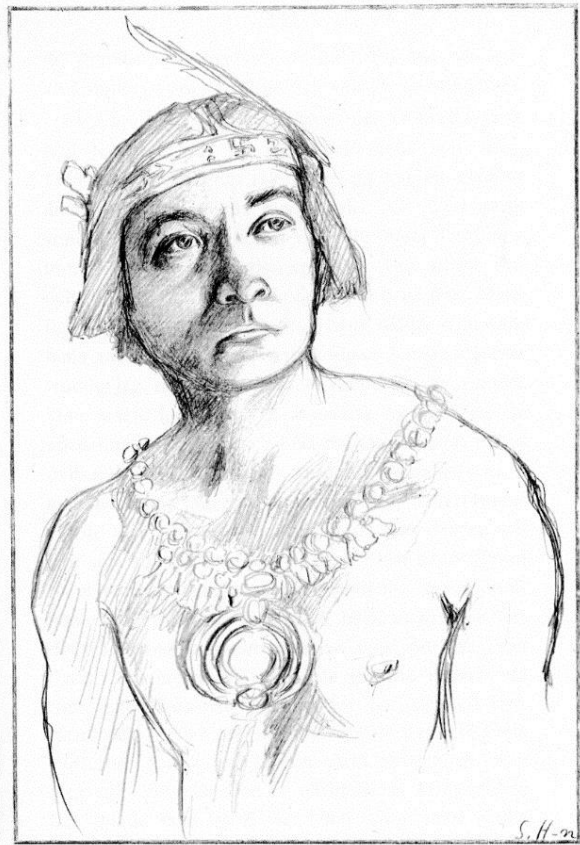
Hermit Peak rakt i söder från Hermit Cabins. Solen står i väster.

Hermit Peak due south from Hermit Cabins. The sun is in the west.
(p. 123 in the original edition)



Hopi Indian i Grand Canyon.

Hopi Indian in Grand Canyon.
(p. 127 in the original edition)



Hopi Indian vid Grand Canyon.

Hopi Indian at Grand Canyon.
(p. 130 in the original edition)



Från Navaho Point efter solnedgången.

A. BORTZELLS TR. A. B. STHLM

From Navaho Point after sunset.
(facing p. 128 in the original edition)

RIO COLORADO.

The next day I made a trek on foot down Hermit Creek's narrow, winding and indescribably picturesque valley to the left bank of the Colorado River. The heat had already risen somewhat; at 11 it was 27.1° C. but down in the tunnel at 1:30 34.2° C. The sky was brilliantly clear and fierce gusts tumbled between the rocks. The path led past the scene of the nocturnal dance, and then I had to cross again and again the little clear spring stream, which ripples in its stony bed and whose banks here and there are overgrown with fairly dense thickets. All the way, which is 1½ English miles, you drop 900 feet, roughly the equivalent of an Eiffel Tower. The trail is very comfortable. In some places it is provided with parapets. Vertical or steeply plunging rock walls enclose Hermit Gorge. Lizards wedge between gravel and boulders. Otherwise, wild-life is meager. Only once in a while does a horsefly whiz past.

The stream is no wider than you can take in one leap. Where it is slightly swollen, stones are laid out to step upon. Fifteen times one has to cross it. At each crossing, my only traveling companion, the rat dog Rock, barked, and I soon learned about his wishes. He wanted me to throw a stone into the water, which he quickly retrieved and returned to me.

After crossing the creek for the last time, you suddenly find yourself at the point where Hermit Creek exits into the wider and yet so narrow and energetically cut corridor, where the Colorado River tumbles its immense masses of water. In the mouth of the valley, where the width does not exceed 25 meters, a small field of dunes of flying sand has formed, partially bound by plants. Otherwise, the patch of dry land that spreads between the valley mouth and the river bank is littered with boulders and gravel. The river water has a grey-brown color and is as thick as pea soup. One seems to feel how the ground trembles under the heavy masses of water, and a dull, reduced roar fills the mighty granite channel, which from above the rim looks like the

narrowest of streaks. The landscape that unfolds around me is grand, but no more remarkable than from the banks of some Himalayan river. One is trapped between granite rocks and sees only in the extensions of the two valleys, i.e. in three directions, a glimpse of distant heights. On the ridge up there at El Tovar and other vantage points, you are as high up as you can get and have to direct your gaze horizontally or downwards when looking at the strange landscapes. But at the point where I now found myself, I was as far down into the Grand Canyon as I could sink at all, and directed my gaze horizontally and upward at the pattern of wild relief produced by erosion.

At this point the river approaches from the east and is framed between dark, sheer granite cliffs. Going up its course along the [river's] left bank is impossible; the rock walls drop vertically into the water. From my vantage point, the river runs in an elongated arc to the northwest and is framed on the left bank by vertical, often overhanging rock walls, while the mountains on the right bank form steep slopes. And if I look towards the south-southwest, up through the valley of Hermit Creek, I perceive a mighty mass of mountains in terraces and steps alternately forming a protruding projection from the southern rim in the vicinity of Hermit Basin.

Immediately below the point where the side canyon enters the main valley, our attention is arrested by Hermit Falls, where the river boils and seethes, and where the masses of water seem to wrestle and break their way between and over boulders that have fallen into the bed and are not visible above the water. In fact, there are no falls, only rapids. Above them in the east the river is wider, calm and quiet. But then the suction begins down to the rapids. The water bends and arches in beautifully shaped shiny waves, which constantly, with this amount of water, maintain the same position and appearance. The first big wave turns into an overhanging crest with no foam on the crest but with dark shadow below it. In the next it breaks into sizzling foam and from this witch's cauldron rises the roar that fills the valley.

I stayed for several hours at the site and made some drawings. At 3 o'clock the temperature had risen to 36.1° C., but I was also between sun-baked rock outcrops in the enclosed valley. For the most part the air was calm, only once in a while did a fresh easterly breeze come, which stirred up the flying sand into dancing clouds. Time after time small black trunks and branches of driftwood scuttled past on the river's surface.

They betrayed more clearly than the water itself how powerful the current's suction was. In the maelstrom of the rapids they disappeared without a trace.

I have to dedicate a line to my friend Rock. I could hardly have had nicer company on the shores of the Colorado. He was very funny. I sat and drew on a lumpy boulder, which was half awash by the water. Just beyond this another boulder rose out of the brownish-gray waves, and between both the water was compressed by the suction of the current so that there was an insistent spattering and plashing. It looked like they were constantly throwing rocks into the water, and this joke annoyed Rock. He stood on the far end of my boulder and barked hoarsely. And time after time he turned to me to complain of this wanton mockery. I then had no choice but to throw a stone into the river. The dog jumped in with truly magnificent boldness, dived, fished out the right stone among thousands of others, and came up dripping wet and laid it by my side, after which he gave me a shower, which endangered the sketch-book, pricked up his ears, laid his eyes on me and waited for the next stone. He was careful not to venture out into too deep water, and always made sure he had a firm footing on the bottom. Of course he disturbed me while drawing, but neither of us got tired of the game, and I don't know who had the most fun, Rock or me.

At 6:30 the thermometer showed 18° C. in the river and 29° C. in the air. Just as I was about to break up to return to Hermit Camp, Mr. Poquett appeared with two mules, and I was therefore spared the ascent of 900 feet into the valley — on foot. We arrived just in time for dinner. Besides Dr. Leede and his two ladies, another party had arrived from El Tovar. They were young girls, teachers from some school, who used their vacations to quench their thirst for education and explore their great country. Only 10.2% of all tourists who visit El Tovar also go down into the Canyon and of these 60% are ladies, most of them school teachers and nurses.

In the evening, a small crescent of moon spread its pale, ghostly glow over this wonderful valley, and the wild donkeys were heard braying in a few places out there. Like a mighty memorial, an enigmatic sphinx of fairy-tale age, Hermit Peak raised its dark spire to the night sky, and above its crest a star twinkled like a diadem.

When Dr. Leede and his wife returned to El Tovar on the afternoon of June 19, I decided to accompany them. The temptation to take the trail along the river to Indian Garden and from there up to El Tovar was not great, because partly I had already planned an excursion over Indian Garden and the river to the north rim of the Grand Canyon, partly because the 20-plus mile long trail along the river is rather monotonous. Incidentally, it is located at the same height, approximately the same as Hermit Camp, and as it takes most of a day and is practically without water, one does not get the opportunity to draw. Its name is Tonto Trail because it constantly runs on the slopes of the Tonto Formation. Just below Hermit Camp, this path diverges from the one on which we came down from the southern rim. Through sharp, time-wasting curves to the south, it must avoid small deeply incised side canyons, namely Monument Creek, Salt Creek and Horn Creek, to finally ascend Indian Garden Creek. In equally sharp bends to the north it must skirt the projecting promontories from the southern rim, namely Cope Butte, which is the continuation of Pima Point and on whose ridge are situated the steep Cathedral Stairs, The Alligator with its two promontories projecting to the northwest and north, the last spurs from Mohave Point, Dana Butte, the root of which is located at Hopi Point, and The Battleship, which emanates from Maricopa Point.

We therefore broke up after lunch, passed a place with the descriptive name of Four Echo Rock, and in two hours were again at Santa Maria Spring, where we drank water and ate oranges. Down there at Hermit Camp the temperature had been 33.5° C.; now the degrees had dropped to 26.

The ride up the steep slopes is much easier for a good rider than the ride down. In the former case, one sits as if in a chair, which is lifted up step by step and jerkily, in the latter one must constantly have a firm brace in the stirrups so as not to slide headlong over the mule's ears. I was told that since El Tovar was built 17 years ago not a single accident has occurred.

At the top of the ridge, a nice tourist cabin, Hermit Rest, has been erected. There, on cold days, a fire burns in an open fireplace, and there, as now in the summer, you can get soft drinks and pastries as well as postcards for a pittance. A hailed car

brought us in no time back to El Tovar, which was full of cute misses and tourists of all kinds.

During the day the whole sky was covered with clouds and looked threatening. However, the actual rainy season does not begin for another month. The year 1923, however, was considered colder than usual and it was suspected that the rain would come sooner than otherwise. I hoped it would calm down until I saw what I wanted to see, because in the rain the Grand Canyon loses its charm, the characteristic sculpture does not come into its own and the brilliant colors disappear. On the other hand, highly peculiar effects and very surprising landscape images are said to be evoked by the mists, which time after time fill the huge chasm. White as whipped cream or a river of idle foam, such a mist can come rolling through the Canyon's valley, completely obscuring its nether regions. Temples, pagodas and rock outcrops rise out of the fog like islands and rocks in a raging sea.

A day of rest was allotted to walks along the rim and the execution of some drawings from picturesque points. I also spent a good while with the amiable Colonel Crosby, the Government representative at The National Park. He lives in an unusually nice and rustic cottage in the woods not far from the railway station. Its interior is vividly reminiscent of Lundbohm's cottage in Kiruna. He gave me maps, brochures and photographs, and we made plans for a couple of new road trips as far as you can possibly go along the southern rim.

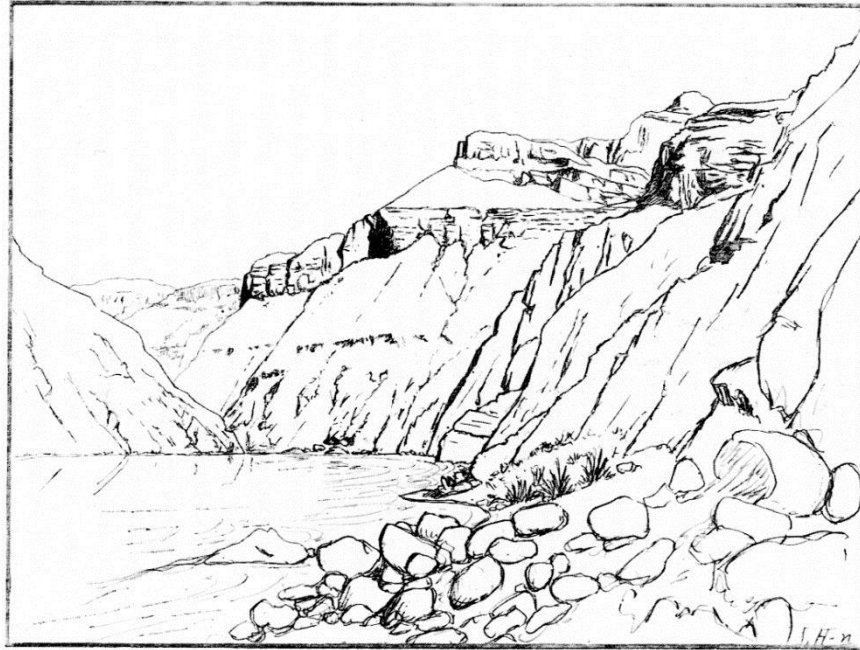
In the afternoon I heard a very exciting and instructive lecture by Mr. Kolb, who had undertaken a daring boat trip on the Colorado River down the Grand Canyon of the same kind as that which was in his day performed by Colonel [*sic*] Powell.

Then I visited Joo Secakuku at his house after he had finished his usual dance for the tourists. He showed me Indian rugs with strange patterns and I bought about ten of them.

Finally I also met Mr. Ford Harvey and the vice president of his concern, Mr. Wells, both friendly, sympathetic and hospitable. They had come to El Tovar to consult with their architect and other experts on the site about the construction of a new magnificent hotel, because the old one, which had cost close to a million kroner, was now

insufficient and within a few years would be far too small. I have already mentioned that the annual number of visitors is on the rise. On this same day, 700 guests had arrived, and although most of them are motorists, who spend the night in or next to their vehicles, the hotel is still always full. I took the liberty of telling the young architect, in my opinion, that a hotel at El Tovar should be located and built in such a way that as many rooms as possible had an unobstructed view of the Grand Canyon. Nor would I place it in an incised bay, as is the case with El Tovar, and where the east and west projecting promontories only admit of a view, which is even less than the breadth of a quadrant. No, I would erect it on Hopi Point, from which through the front windows one could command two full quadrants or half the horizon, and from the corner rooms three quadrants. The current hotel at El Tovar is about as bad as it gets in terms of the view.

So we sat and talked in the large lobby, which is also a common lounge, and the fires crackled in the fireplaces. Even on this day, the weather had been gloomy, windy and cold and at 2 a.m. the thermometer showed only 9.2° C. It is the considerable altitude above the sea which is responsible for such a low temperature in the middle of summer and at 36° N. Lat.



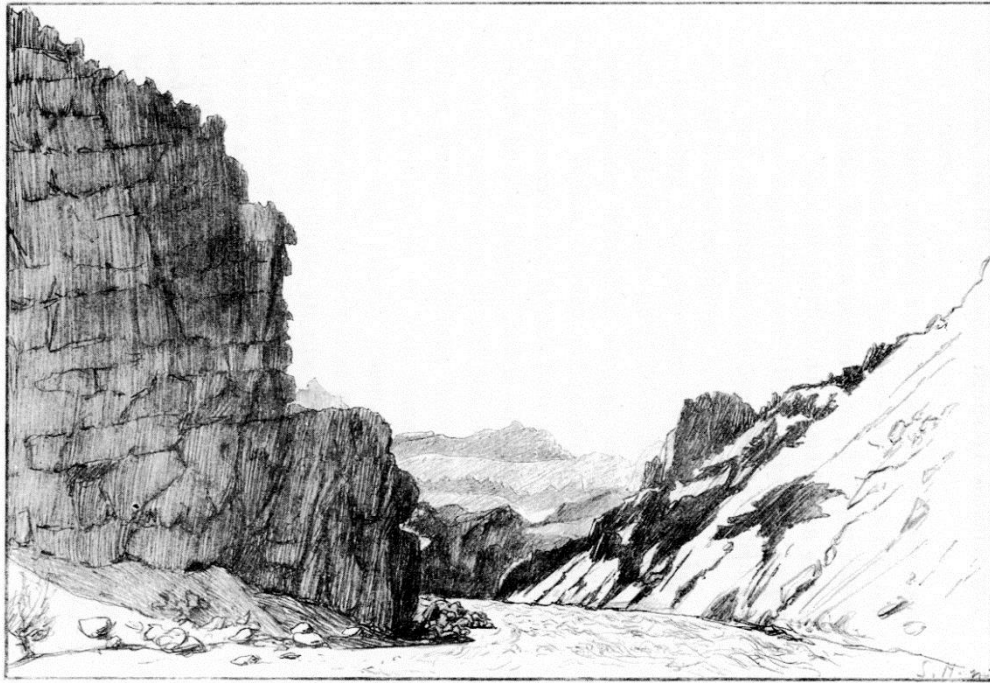
Från mynningen av Hermit Creek. Utsikt mot öster, uppåt Rio Colorado.

From the mouth of Hermit Creek. View to the east, up the Rio Colorado.
(p. 139 in the original edition)



Mot SSV från mynningen av Hermit Creek.

Towards the SSW from the mouth of Hermit Creek.
(p. 143 in the original edition)



Utsikt nedåt Rio Colorado från Hermit Creeks mynning.

View down the Rio Colorado from the mouth of Hermit Creek.
(p. 147 in the original edition)

NAVAHO POINT.

After a long visit to the painter Dawson Watson, who showed me his desperate attempts to reproduce in oil the splendor of the Grand Canyon, and after viewing in the museum building Ayken's large painting of the same hopeless subject, a painting which was artistically very successful,¹¹ I drove east out to Desert View or Navaho¹² Point, a distance of 30 miles.¹³ It was 3 o'clock, the temperature was pleasant (20° C.) and I should reach the destination of my journey in good time before the sun went down.

Mr. Petrosa had provided me with a sack of food for the evening and for the whole of the following day, for I was to spend the night in one of the three tourist cabins which were at Navaho Point and where no one lived. They therefore also gave me kerosene for a lamp, bedding, sheets and blankets, as well as, not least important, the key to the kitchen house, where I would find a stove and where I could make tea water or coffee and maybe also find something edible in the cupboards, jam or something like that. Just before the break-up, one of the gentlemen at the hotel asked if I should not bring firearms, as one was not safe from mountain lions, bobcats, wildcats and coyotes, the jackals' relatives, but I took his warning as a joke and was not disturbed by any wild animals either.

In a small Ford I was driven by Mr. Tillotson, one of the gentlemen on the staff at the Grand Canyon, the long way through the woods. As far as Grand View the road is excellent. We pass Thor's Hammer, leave Grand View Point on the left and have to stop for a good hour, due to car damage, at an old ranch that was formerly used as a guest house. Here is the border of the national park. The area has been bought by

¹¹ This was Louis Aikin's canyon view that was displayed in Verkamp's, the curio store near El Tovar and Hopi House.

¹² *Hedin's footnote*: Or, written in Spanish, Navajo.

¹³ *Hedin's footnote*: This number was given to me at El Tovar and was scratched by the driver. According to Darton's book it is only 20 miles, but according to the map at least 25.

Mr. W. R. Hearst, who apparently intends to build a house on the brink of the precipice in order to thereby acquire another secluded abode for the many he owns and to which he usually retreats for a week or so from his noisy newspaper profession. From this point one has a magnificent view of the Canyon and of its southern rim, which seems to become higher towards the northeast and where three wooded promontories beyond each other assert themselves, separated from each other by vertical, bare rock walls.

Then the road gets worse, but nowhere offers any difficulties. In places, small groups of Navaho Indians are busy improving the roadway. From a "lookout," a wooden tower which rises above the forest, is a constant watch to warn the area's settlers and farmers if a forest fire has broken out. It must be a killer job to sit up there and watch the forest. But when someone like me rushes through these dark, cool colonnades for the first time, then you enjoy it. It is quiet and solemn there. Rarely does a gust of wind rush through the crowns. A deer, a marmot and a prairie dog were the only inhabitants of the wasteland to appear. The latter sat gray-yellow and calm, watching us from a clearing. In a wooded area to the left of the road, porcupines were said to linger and not infrequently come within sight. At one point there was a terrible commotion in the otherwise quiet forest and that's when we met a whole caravan of motorcoaches, no less than eight, fully loaded with tourists, returning from their excursion to Navaho Point. They roared and rattled past through the forest, the ground shaking beneath them. It was quite nice to know that we would find an empty house when we arrived at the headland.

Mr. Tillotson drew my attention to the prevailing trees of this wild forest. They were yellow pine (*Pinus ponderosa*), Douglas fir (*Pseudo-tsuga taxifolia*), Utah juniper (*Juniperus utahiensis*) and black oak. Half an hour before you arrive, the yellow pine stops, and the piñon prevails. The former, however, appears again in a depression where the loose layer of soil is stronger, because this tree requires more soil than the others.

The road runs in such sharp curves that you sometimes go west. Here and there you can see "tanks" or ponds dug in for the collection of rainwater for the cattle that

graze in the forest. Otherwise, they often die of thirst. On the left-hand side we pass Lipan Point and are in a quarter of an hour before 6 at the finish line.

Between the trees on the promontory projecting towards the north, Navaho Point or Desert View, were three tourist cabins erected at a distance of a few hundred paces from the edge of the abyss. The easternmost of these is provided at its two short ends with verandas woven with wire mesh and its interior is occupied by the dining room and kitchen. In the latter there is a small stove, wall-mounted cupboards containing some supplies, such as tea, sugar, coffee, jam and biscuits, as well as water supply, pails, jugs, buckets, dippers, dishes and cups, etc., all of enamelled tin.

The westernmost cabin consists of a single room with a porch. The room is furnished with a bed, chest of drawers, wash basin, some rattan chairs and a stove. The middle cabin is of the same kind. A couple of smaller groups of tourists can thus spend the night at the site. But now there was no one at Navaho Point, no watchman or servant, not even an Indian or a negro. We had met the last visitors on the road, no one had wanted to stay overnight. Thus I would become a mole alone in the wilderness, far from El Tovar, the outermost outpost of civilization.

Tillotson opened the two cabins I needed and showed me where everything was. And after we unloaded packs and provisions in my sleeping cabin, he said goodbye and disappeared with his car through the forest. Then I moved a couple of the chairs out to the edge of the headland and started to draw a couple of outline sketches and coat them with paint. It must go quickly, because the shadows lengthen every minute and the play of colors undergoes constant changes. The entire north-to-south family crest, the Palisades, which form the sharpest imaginable boundary to the Painted Desert on the east, a boundary infinitely more powerful than the Great Wall of China in its heyday — and at whose western foot the Colorado River flows, now stands in the sunset bathed in intense red lighting. Almost everything else is in the shadows. In the depths of the valley, the winding silver band of the river can still be discerned.

The sun is on the horizon in the western end of the Grand Canyon and she is going down in glowing fire. Then the red lighting on the desert Palisades fades and all the colors merge into rather dull violet and gray. I also tried to capture this lighting in a

hasty sketch, where more attention was paid to the atmosphere than to the details of the topography. After another moment, the latter are more and more obliterated, the relief so energetically prominent in daylight is smoothed out and only its large features make themselves felt in various heavily shadowed fields. Over the western horizon lingered another deepening afterglow of the setting sun, and over the earth a cloud hung like a long, straight bridge.

From my vantage point, I had the dizzying depth just a couple of feet away. An inscrutable mist seems to prevail down there. Only the canyon's northern edge is still sharply drawn and the river bed appears brighter than its surroundings. But dusk is closing in and the night's veil is drawn across the magnificent sculpture. Behind me around the cabins the forest darkens, the moon is high and the pines rise like ghosts with outstretched arms, casting pitch-black shadows across the bright limestone outcrops. The light and uneven evening breeze that rustled their crowns and swept around the cape has fallen asleep and it is as quiet as a tomb on the rim of the Grand Canyon.

The atmosphere is wonderful; its greatness cannot be described. The feeling of vertigo disappears — you can't see how deep it is to the bottom of the valley. I sit and listen and have a feeling as if I was waiting for something to happen. But not a sound disturbs the silence. Well, what is this? Alas, just a night owl. In vain I wait to hear a rock come loose and tumble down the slope. But in this night the Canyon's walls stand firm, nothing falls from them. I could be sure that the coyotes of the Painted Desert would come in to the edge of the forest and complain and howl. But I wait for them too in vain. Perhaps they sense that a human has settled in the wilderness and therefore keep their distance.

It is a rather unusual and peculiar feeling to be absolutely alone, to not even have a dog for company and to know that it is four or five Swedish miles to the nearest human being. Now that I had observed how the night took care of the Grand Canyon, I had nothing else to do but light a fire in the kitchen stove, put on the water for tea, and in my cabin display the beautiful things Mr. Petrosa had left in my basket. There were sandwiches, bread, butter and cheese, chicken and eggs, a bottle of red wine and a bottle of cream, oranges, peaches and plums. The silence of the forest and the abyss

surrounded me. I didn't miss the locomotive's signals, the roar of the engine or the noise of people's voices. My room had five glass windows and I pulled up the curtains to let the moon shine in. The door between the room and the porch had to be left open, but the front porch door was kept closed, and even the most enterprising felines would probably have refrained from scratching the wire mesh. The roof is double; it consists of cuttings and burlap and flutters and bangs like usual tent canvas when one or another nocturnal breeze comes over the end.

I didn't have to complain about the heat — it was rather fresh, at 8 12.2° C. and at 11 a.m. 7.8°. After setting up my rest camp and fetching washing water from the kitchen, I went out to the headland again to cast a farewell glance over the enigmatic Ginungagap that lay there open in the night. Then I went to bed, turned off the lamp, and lay awake for a while in the moonlight, still lost in listening for the evening song of the desert dogs.

At 6:30 the following morning I was back out on the headland. The sun had just risen. But now the red glow which colored the wall of the Palissades the previous evening and which was probably caused by the fine particles, both dust and water vapor, which fly about in the air, was completely missing. Now the sky was perfectly clear and blue and the red tones had disappeared. In the twilight, the Canyon was certainly beautifully lit, but not in the warm tones of the evening. The palisade wall and the north-south section of the Colorado River now lay in dense shadow. The landscape had completely changed appearance. But the broad lines were still always the same, and the promontories, ridges and temples projecting from the northern and southern rims were bathed in morning light. The temperature was 8.4° C.; at 10:30 it had risen to 14°.

After having breakfast in the kitchen, I sat out again on the headland with pads, watercolors and water and set my chair in the shade of a pine tree. The day was brilliantly clear, but the wind was quite brisk and the wind howled in the steep cliffs and ledges and in the crowns of the trees. A swallow whizzes past me like a shot just a few feet above the ground, but after a second and after she has left the edge of the ridge behind her and soared out over the Canyon she is suddenly 4,600 feet above the ground. Otherwise, the bird life, at least out here on the cape, is very poor, and there

is also a lack of insects. A couple of flies buzz in the air and a mayfly flashes over the precipice, but turns back into the forest. Towards evening the swallows became quite numerous and seemed to find pleasure in chasing each other out over the gaping *ättestupas*. Otherwise, nothing disturbs me, no sounds are perceived, no voices are heard, the most perfect Sunday peace reigns over everything and I sit alone in the top row and have before and below me the most grandiose spectacle that exists on earth. I just sit and watch and admire and can't bring myself to start. You drown in this incredible wealth of detail, feel awkward, ridiculous and neglected and find that the task is completely hopeless. And if you seek salvation in a camera with large glass plates and sharp lenses, you will certainly get a faithful image of these hundreds of thousands of dark vertical furrows created by the erosive power of the rain and weathering, as well as of these horizontal layers, moldings, floors and walls with steep terraces in between, which show the deposits of the geological epochs. But the colors are missing, the air, the perspective, the distances, the incredible depths do not appear in a photograph.

With contempt for death, I finally start a watercolor. The whole Canyon is sun-drenched. The shadows make themselves felt. They are otherwise a help, because they hide the details over certain fields. I try to exclude all the little things and stick to the big lines, but soon find that I still lose myself and the fast-flying time in too many small things. And without the detailed drawing, however, the Canyon image loses much of its peculiar charm. It is these innumerable prominent, sunlit vertical columns between the vertical erosional channels that resemble huge galleries on different floors in a cathedral of superhuman, fantastic dimensions and against whose countless numbers one feels powerless. However, I go on, but the result is kaput. The night before, when the last minutes were chasing each other and the whole landscape was red or shadow, I got a better sense of the indescribable atmosphere.

To the east, the vertical walls of my promontory, Navaho Point, plunge into a smaller unnamed notch or side canyon, at the opposite edge of which the wall of the Palisades swings in and merges into the jagged contour of the southern edge. On the crest inside the rim in the east, slightly undulating green fields spread out, similar to meadows, but it is likely to be shrub vegetation, prairie plants or perhaps even a small

forest, which due to the distance only asserts itself through its greenery. A table-shaped mountain [Cedar Mountain] is also visible in this direction. In the east and northeast spreads The Painted Desert, the colorful desert, on whose "mesas" the Navaho Indians have built their villages. This desert fills the entire northeast corner of the state of Arizona and also extends across the borders of the neighboring states of Utah, Colorado and New Mexico. Its western limit is the Canyon of the Colorado River, and thence it spreads before the eye endlessly, shifting in the lightest and most delightful shades and transitions, in yellow-grey and red, in pink and pale green, in blue and violet. Flat waves of terrain and some flat, table-shaped hills are visible in increasingly lighter tones all the way into the disappearing distance, where you cannot always tell whether their contours belong to the earth or are merely banks of fog or thin cloud veils on the horizon. This desert, so unlike the Asiatic ones with their monotonous grey-yellow tone and their eternal fields of flying sand, exerts like them an irresistible, clear charm, and I have to fight my desire to spend a week or two in its interior.

A very characteristic and sharply prominent feature in the part of the Painted Desert, which is closest to me, is the dark line that denotes the Canyon of the Little Colorado River. This left[-bank] tributary of the Colorado rises from the Colorado Plateau and flows in an almost straight line to the northwest to join the main river just above its sharp bend to the west. As the spectator at Navaho Point is nearly level with the general surface of the Painted Desert, it is clear that the entire depth of the corridor of the Little Colorado River must be hidden from his view. The only thing he sees is the top rim on its right side, as vertical and sharply drawn as "the rim" on the sides of the Grand Canyon. The fact that you see anything at all of this right-hand stripe is because it is higher than the left.

As you soak in the view from Navaho Point, you agree with yourself: this is still the best I've seen of the Grand Canyon yet. I had previously had the same impression at Grand View. It is probably safest not to make any comparisons at all, but simply to admit that each of these vantage points presents us with a world of incomparable and unimagined beauty. Seen from El Tovar in the saturated purple glow of the sunset, the pagodas and towers on the northern rim are of course perhaps the most prized of

all the spectacles you get to witness here. But besides the fact that Navaho Point gives us the sight of the red splendor of the evening illumination over the Palisades, this point also has the strength of allowing us to command the valley of the Colorado River both to the north through Marble Canyon and to the west where the river has cut its furrow through the granite. For Navaho Point lies precisely in the very elbow, where the river, having just flowed from north to south, changes its course to the west. From the north, somewhat to the east, the river comes tumbling down through Marble Canyon, where its bends, just above and below the mouth of the Little Colorado, are very insignificant. But just below Comanche Point, the course cuts into meanders, the first of which is clearly marked and appears in a couple of my photos. With the binoculars I see the violently undulating course of the water masses, but not a sound of their roar reaches my ears. The water itself and the gravel bed at the shores have the same gray shade as the Tonto slopes. In a couple of places, narrow green bands of vegetation can be seen in the shoreline itself. In the northwest and west, both the river and the start of its granite corridor further down are obscured by a mighty spur from the rock wall of the southern rim. But slightly to the left of this spur's pyramid, almost due west, a glimpse of the granite rift emerges as an immense, gaping fissure with sides like mottled wedges cutting through the Tonto slopes. Seen from here, these do not appear to be particularly steep, and in the lighting that prevails at noon, they shift into a greyish tone, with a tendency towards green. Above the Tonto Formation rise the usual easily recognizable horizons, the Redwall with its vertical cliffs, the slopes of the Supai strata, the Coconino and Kaibab deposits in somewhat undecided, murky tones, where, however, the red predominates. Just below me in the west-southwest runs a small side canyon with a winding gray band at its bottom — I can't decide if it's fine gray cobblestone gravel or if a small, equally gray watercourse also runs down through its furrow. It's called Tanner Canyon. The vast valley stretches to the west-northwest and fades far into the distance as in an indistinct mist. But the wind is also quite fresh and the air is not clear.

Turning my gaze to the northwest, it meets first and nearest the mighty spur belonging to the Supai Formation, which bears the two elevations of Escalante Butte and Cardenas Butte, the former with fragments of Coconino Sandstone on its crest.

Then the river follows the depths and on its other side several of the previously mentioned temples and pyramids, which are offshoots from the Valhalla plateau, such as the Vishnu temple and the Jupiter temple, where the red sandstone and slate of the Supai layers strongly assert themselves. Wotan's Throne, rising beyond the Temple of Vishnu and belonging to the ridge which springs from Cape Royal, bears on its crest a capping of Kaibab limestone. I was soon to make a closer acquaintance with this lovely region.

Beyond the row of "temples," which bear the names of Apollo, Venus, Jupiter, and Juno, and which belong to a very irregular spur from the Valhalla Plateau, and have their root near Cape Final, rise two pyramids called Siegfried Pyre and Gunther Castle, which stand out in different lighting on a couple of my pictures.

In one important respect the very bend of the Colorado River, above which we now find ourselves, has a very different appearance from the other parts of "the inner canyon" which we have seen from other vantage points and from the mouth of Hermit Creek. Here in the east the valley is more open and wider, in the west crowded like a narrow corridor. This is because the river, on exiting Marble Canyon, flows through the softer layers of the Unkar formation, while further down, at about a Swedish mile from Navaho Point, it begins to cut its furrow through the granite. The slopes of the Unkar group, through which the river has cut its channel, consist of red shale and gray and brown sandstone, but mostly change to red. The black strips of rock that here and there interrupt the Unkar hills consist of diabase, which in a liquid state has been pressed up from the interior of the earth and penetrated between the sedimentary deposits.

In my pictures from Navaho Point, which represent the magnificent expanse of the Palisades, Comanche Point stands out clearly, and especially in the pencil drawing, where, thanks to the evening light and the marked shadows the relief comes into its own more strongly, this promontory with its terraced precipice towards the valley resembles a petrified waterfall of enormous proportions.

The hours passed and too quickly the shadows in the valley lengthened. I sat as if nailed to the edge of this tomb, in whose bosom countless millennia had been buried

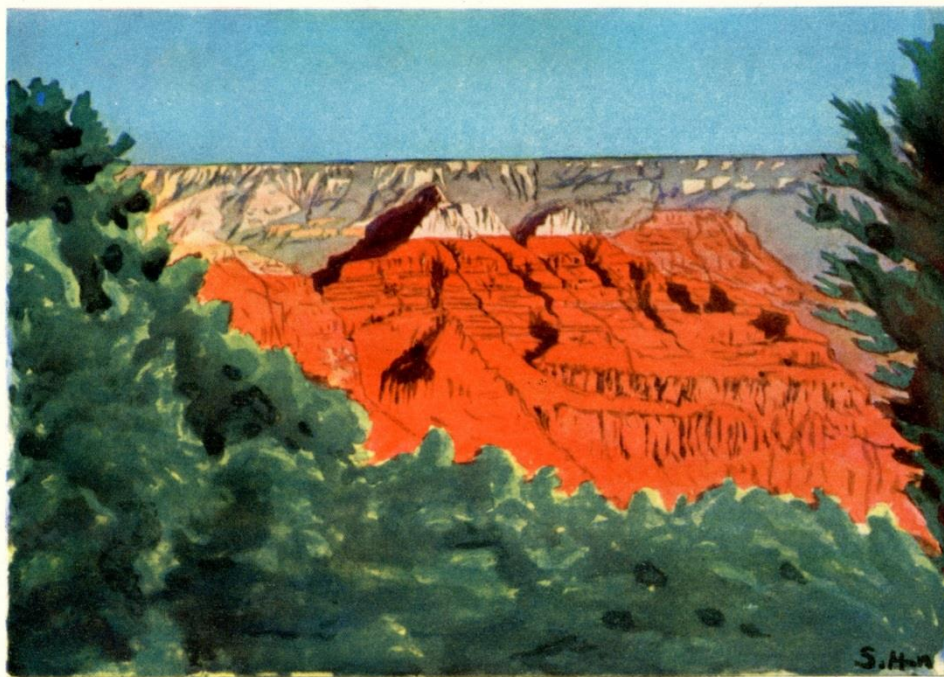
and then, thanks to the erosion of the Colorado River, risen again from the dead. And this tomb is at the same time a monument to the seemingly capricious play of natural forces, a city of sanctuaries, temples and towers, a planetary library of records of earth's history. I sit alone in my dreams and make desperate attempts to capture the essentials in my sketchbook in colors and pen strokes.

Suddenly the peace is disturbed by a noise in the forest! It is 3 o'clock. There are people rolling in heavy motor coaches, men, women and children, wholesalers, clerks, teachers, schoolmistresses and governesses, newly married couples, in a word tourists. They don't have any nice manners, they stand right behind my chair and look at my poor sketch with much more attention and curiosity than they do to the Canyon, which they don't understand at all. However, it is quite funny to overhear their intelligent conversation [recounted by Hedin in English]. "What is that grey thing down there, is it a road?" — "No, it is the river." "Which river?" — "The Colorado." — "Oh, is it, how very interesting." They better not stay more than an hour. I was happy when I heard the noise of the motor coaches die away, and the silence return to the forest.

Of strange sayings about the Grand Canyon, I think of the following, which I once heard out there: "This valley is hell without fire and brimstone and with the lid lifted." Yes, Dante would have had new ideas if he had seen the Grand Canyon, although that would have been a lot to ask of a contemporary of Marco Polo. The master Doré would have enjoyed the architecture here, which far exceeded his wildest imaginations.

New hours slip away and soon the day is gone, another second in eternity. At 6 o'clock I eat dinner in the kitchen, urgently so as not to lose the most beautiful of the evening's spectacles. The sun goes down and the rock walls begin to glow like rubies again. It is as if the earth's crust was heated from below by liquid magma and as if the high rock walls of the Canyon would soon soften, sink together and melt away. It lies like a mist in the valley of the Colorado River. I can just make out Marble Canyon, just now covered in black shadows. In the west, where the sun is on the horizon, the mountains have no colors at all. At their height, you can say that the furthest ones appear as light gray-blue screens in the distance. The canyon's walls and spurs appear in increasingly darker tones, the closer they are to me. And the scene under my cape is already pitch black.

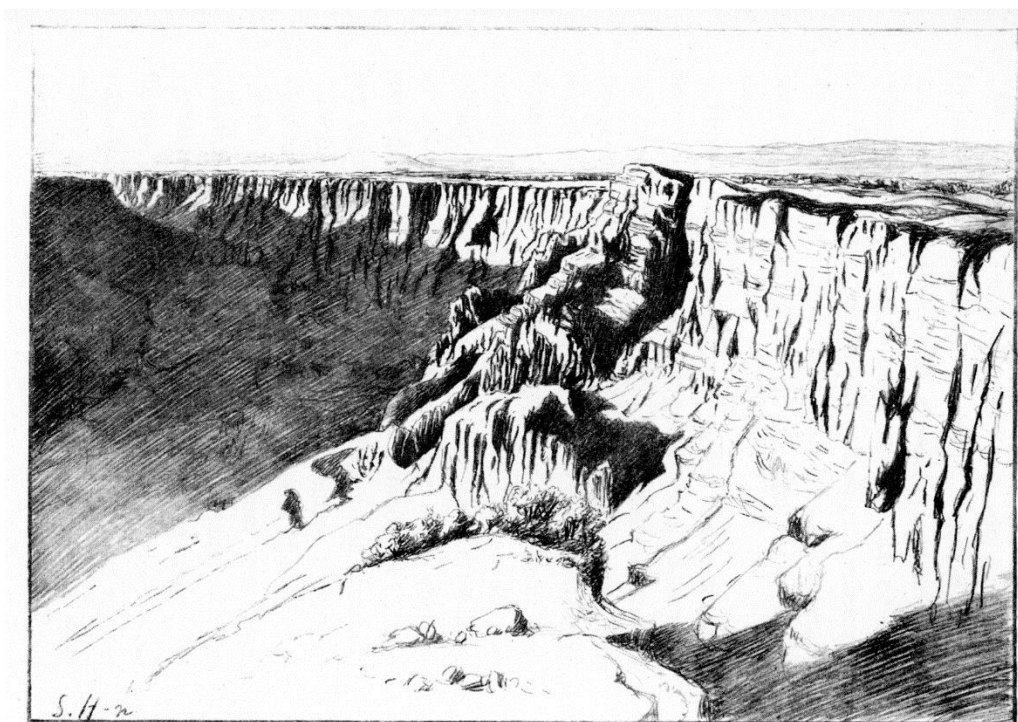
The wind blows non-stop. Dusk falls. I'm waiting to hear the roar of the car engine in the forest. It was agreed that I should be picked up after sunset this evening. But all remained silent. I therefore prepared to meet the new night, fetched water for the bedroom and was just busy filling the kerosene lamp, when a shrill siren song cut through the silence and a White taxi drove up between the cabins. My things were packed aboard and with the headlights sending their white beams across the road and the moon shining over the landscape we drove back to El Tovar. A couple of porcupines once stood out by the side of the road, and once we were about to run over a cow. In El Tovar the electric lights shone as in a city, and the civilization to which I returned seemed to me very poor in comparison with the atmosphere which prevailed about my place of pilgrimage on the edge of the desert.



Brahma och Zoroaster templen från Wylie Way Camp.

A BÖRTZELLS TR. A. B. STHLM.

Brahma and Zoroaster temples from Wylie Way Camp.
(facing p. 160 in the original edition)



Utsikt mot NNO från Navaho Point. Palissadernas mur med Comanche Point i mitten. Till vänster Marble Canyon med Rio Colorado i djup skugga. På Palissadernas krön och till höger Painted Desert.

View to the NNE from Navaho Point. The Palisades wall with Comanche Point in the middle. To the left Marble Canyon with the Rio Colorado in deep shadow. On the crest of the Palisades and to the right the Painted Desert.
(p. 169 in the original edition)

TO HAVASUPAI POINT.

June 23 I used for small rambles along the rim, where some drawings were made. When I passed the wildcats' [bobcats] large cage in the open in the morning, the unfortunate captives from the wild forest were nowhere to be seen — they sheltered from the bright sunlight and kept hidden in their artificial cave.¹⁴ In the afternoon I again watched the Indian dance and followed with sadness Joo Secakuku's customary antics before the white congregation. On these occasions, the Indians were dressed in all their barbaristically picturesque splendor, variegated feathers in the headband, necklaces and bracelets, rose-red cloaks without sleeves, bows and arrows, etc. But they are prisoners, just like the wildcat, and the invisible grid that surrounds their life is as impenetrable as the iron bars of the great cage. They are a dying people with a past full of freedom and wilderness poetry, and to them all life is a sunset with no hope of a dawn.

At dusk I returned to the wildcats. Now they had awakened in the hour of the shadows, now their pupils dilated, and from the bare branches of the tree that stood in the center of the prison they could let their eyes go southward into the dark recesses of the forest, where of old they had hunted deer, calves, sheep, and hares. Now they had to live on meat, from whose muscle bundles even the warmth of the pulsating beats of life and blood had already flown. A beast with sideburns, high brush hairs in the lobes of the ears, and an air of unquenchable hatred and indomitable savagery and cruelty, sat before the grate, motionless as a museum piece, as if lurking for a victim and ready to pounce. When I went forward to examine the prisoner, he sprang up as if struck by a snake, wrapped his paws around a pair of bars, drew up his upper lip, barred the gap, and hissed with ominous force, as if he wanted most of all to sink his fangs into my throat. I flinched and involuntarily took a step back. My

¹⁴ At various times over the early years at Grand Canyon, concessioners displayed for tourists' curiosity a variety of captive animals, in cages or rude habitats, in the area near El Tovar and Hopi House.

revenge was limited to a blow with the cane against the iron bar above the little angry beast's head. Like an arrow it sat on one of the topmost branches of the tree and its eyes glowed like coal and as if it wanted to pierce me with its hateful gaze. It's strange that an animal can hold so much hatred. But maybe it's not so strange either. The wildcat knows its most dangerous enemies and asserts its right to live.

Not far east of El Tovar on the way to Grandeur Point and Yavapai Point, the path along the ridge is double and runs in two tiers. The upper one leads between trees and here you can wander in safety. The lower one follows a ledge, a narrow, irregular step, and it wanders up and down along the very edge of the abyss. Here you should watch out for every step and know where you put your foot, otherwise the walk can be very short — or very long, whichever you want, because if you are stupid and stumble, it will lead to eternity. Here, too, trees, pines, hemlocks and oaks grow and sometimes they have gained a foothold in cracks and crevices a few meters away from the path. Then only their crowns stick up above the white limestone edge and you walk as if in a narrow gallery with a vertical bare rock wall on the inside and on the outside an irregular row of kiosks, between which a brilliant view opens up of the wonderful world of the Grand Canyon from the bare interior of the earth. For every ten steps, the perspective changes, and every now and then you stop in front of new and astonishing motifs.

It goes without saying that the distant view of the entire basin of the Grand Canyon remains unaltered, and that its labyrinth is now awash in copper-red temples and pagodas in the sunset, with their bright crests of limestone showing no perceptible influences from so slightly altered viewpoints. But the foreground, "the rim," with its protrusions, promontories and sometimes independent pillars changes and lends an ever-varied form to the red background out there in the abyss. You stop time and again with feelings of astonishment, enchantment and admiration. I also take a break here and there to take a sketch. This evening is not enough for some experiments in colors. I see exactly how I would like it, but I can't and I don't have time. Now that the purple luster has faded, I would like to cover the pyramids and temples with the color of a freshly polished copper pot, but not shiny and lustrous like one, but dull. I wish I could depict the view of the temples of Osiris, Shiva, Isis and Buddha in a series of

pictures with the dying light of the evening blush over the escarpments. A picture should be painted every quarter of an hour during the two hours before sunset. They would offer a series in which each image would be different from the others. One would find how the brilliant red illumination at first colored considerable fields of slopes and precipices, how these fields of light then gradually diminished in extent and brilliancy, and how, immediately after sunset, they completely died out. So e.g. would you find that at 7 a.m. [*sic*] seven-tenths of the valley is hidden by shadows. And where the shadow fields spread, the details disappear. But the more powerful the shadows become, the sharper the still sunlit parts stand out. However dark the shadows are, blue is always included in their tone. Over it all a remarkable light blue sky stretches its canvas and in the foreground beneath my feet The Battleship rises its dark hull like an eternally anchored ghost ship.

For six hours I wandered alone along the edge. As dusk spread its wings over the Grand Canyon, I took the safe forest road, where no one was now visible, and returned to El Tovar to spend the evening with Mr. Harvey, Colonel Crosby, Mr. Clarkson, and the young architect Shaw. Even now, the burning question, which had previously occupied us several times, was debated, namely the new hotel on the site. I was stating my personal opinion bluntly — Americans have the unusual and very likable quality of listening with pleasure and attention to other people's opinions, even if they run counter to their own. Now I told you that when I was in Chicago in the office of the Santa Fé Company, I made a modest request to get a room in the hotel at El Tovar, from whose window I had an unobstructed view of the Canyon. I would then be able to capture a quick image or a fleeting lighting effect at any time of the day and always have my drawing and painting materials at hand. I should be able to get up in my nightgown to admire the sunrise, and I should be able to cast a glance in the middle of the night at the magical glow of the moon on the spires of the temples. But when I then came here, I found that no such room was available. Six months before, I had stayed at the Grand Hotel in San Remo, where at least every floor had its own little balcony overlooking the sea. Because it is precisely the sea that you always want to have in front of your eyes when you travel to San Remo to rest. And what is the ocean compared to the Grand Canyon! The sea with its infinity is always enchanting and you

never tire of it. But it is pretty much the same from all coastal towns. The Grand Canyon, on the other hand, is unique and if, like most tourists, you only travel there for one or a couple of days, you want to imprint its beauty in your memory as thoroughly as possible. I think we were pretty much in agreement on this point, and I rejoice in the hope that on my next visit to the Grand Canyon — if it ever comes — I will be able to stay in such a room as I envisioned.

Then we sat for a while in the lecture hall and listened to songs and music in Los Angeles and Kansas City on the radio. It seemed somewhat banal to me, but was still remarkable out here in the solemn stillness of the wilderness.

My next excursion in the Grand Canyon was to the part of the South Rim that is west of El Tovar. Broadly speaking, the road first goes west-southwest, then northwest and north and finally east. You do not touch the edge itself until you are almost at the goal, Havasupai Point. The whole line of promontories, which on the way there stick out into the Canyon, stops at a considerable distance to the right and out of sight from our cabin. Right up to Hermit Basin we have already gotten to know them. Those situated west of it bear the names of Yuma Point, Cocopa Point, Mimbreno Point with Vesta Temple in its extension and Topaz Canyon at its foot, Mescalero Point with Diana Temple in its extension, Jicarilla Point with Pollux Temple in front and in the depths Agate Canyon, Piute Point with Castor Temple and Sapphire Canyon to the right and Turquoise Canyon to the left of its promontory, Walapai Point with the projecting lower promontories Shaler Plateau, Drummond Plateau and its continuation Le Conte Plateau; further Signal Hill with Ruby Canyon in the depths, Havasupai Point, which is the goal of my excursion, and in its vicinity Fossil Mtn.¹⁵ and Bass Camp. West of this latter point we can note Chemehuevi Point, Toltec Point, Montezuma Point, Point Huitzil, Point Centeotl, Quetzal Point and Apache Point.

In these western regions the river in its Granite Gorge describes immense bends. At Havasupai point you thus have the Rio Colorado both [*sic*] to the east, north and west. You are on a peninsula here, the northern edge of which has been most horribly

¹⁵ The geographical feature, Fossil Mountain, is labeled on the topographic maps as "Fossil Mtn," which Hedin does not seem to have discerned means "mountain" in English, and he spells it consistently as "Mtn." His spelling is retained in this translation.

eroded and scarred by millions of years of erosion. West of this peninsula, the river makes a very sharp arc to the south around a ridge called the Marcos Terrace projecting from the Powell Plateau located in the north. South of the arc is a mighty incision in the southern rim called the Aztec Amphitheater. Yet farther west, the river flows northeast for a stretch before continuing westward in huge bends to form the Arizona–Nevada and Arizona–California borders and finally, in Mexican territory, emptying into the Gulf of California. Near the border between California and Mexico, I would later, in the Imperial Valley, have the opportunity to see this river again, one of the most remarkable on earth.

I couldn't have celebrated Midsummer better than with this unforgettable excursion to Havasupai Point. Mr. West, one of the splendid guides on the National Park staff, drove me in a small Ford the 28 English miles that separated us from the goal. I can assure you that we all had a delightful day! And I blessed our little Ford and his big daddy, Henry, because the fact that the car didn't crack on a bump was wonderful. Mr. Darton rightly says in his previously quoted book [Hedin quotes in English, and the ellipsis is his]: "Unfortunately . . . these points (Havasupai and its surroundings) are some distance from roads and trails and are therefore not convenient to visit."

At first it goes well, but then the road becomes treacherous, a forest path where you tumble and throw over roots and sticks and shake in deep, annoying ruts. The forest consists mostly of pines, and a majestic stillness prevails between tall, dark trunks. Then the forest thins out and stops, and instead follows a prairie of bushes and tufts, and here you sometimes have to hold on to not fall off! And yet Mr. West drove as carefully as he did skillfully. The worst was when we drove over rock outcroppings, which stuck out of the loose layers of soil and where you could at any time fear having a wheel ring suddenly cut off in the sharp-edged gravel.

A deer jumped in light leaps over the ground and at some bushes a herd of seven strays idled. They pricked up their ears, looked at us blankly, and stood motionless as long as we rode. But when we stopped for a moment, they took off in maddened flight to a more distant observation point, from which they again scrutinized us, just like the wild donkeys of Tibet when a caravan comes trailing by.

We passed a cabin where a horse owner has his headquarters. We rocked along between “black bush” and “sage brush”¹⁶ and finally drove into a beautifully endless forest of junipers, as big as trees and with black trunks, which against the healthy deep green of the conifers makes the striking effect so much stronger because the ground here is brick red. After two and a quarter hours we were happily at Bass Camp, where a couple of cabins had been erected and some men were employed in the service of the national park. From this point we only have 20 minutes to go to Hava-supai Point.

Near the headland the ground was fairly hard and level. We drove all the way to the tip. If you come here at speed and there is something wrong with the engine or the steering, you have every prospect in the world of going over the edge and into space only to, after a few seconds of floating between heaven and earth, turn into a pile of scrap a couple of thousand feet further down. But Mr. West stopped nicely at the right moment and put little Ford in the shade. He took one of the car cushions, placed it at the end of the tip of the promontory, and here I settled down in the middle of the sun’s blaze. The stones were so hot that you couldn’t touch them, and it almost burnt smoke from the cushion.

The height is 2,028 meters and the view is crushing in its sheer size and bold, wonderfully bizarre design.

It was close to three quarters to one when we arrived. I thus had barely 4½ hours, because we should not return later than 5 o’clock. The road is absolutely impossible to find in the dark, and even in daylight you drive certain stretches by feeling where the terrain seems passable. I couldn’t know if I would ever come back to this place in my life. The fleeting moments must therefore be utilized. And yet the first half hour is spent only in astonishment. One is taken by this sight and stands gaping. It’s too much at once. In all directions except the southwest, the view is overwhelming, paralyzing. You become completely silent and ask no questions. At the moment I am not in the least interested in what all these pyramids, ridges and chasms are called on a map. It

¹⁶ *Hedin’s footnote*: Prof. Skottsberg reports that black bush and sage brush are the two most important character bushes on the Colorado Plateau and the slopes down towards the river. The first-mentioned, *Coleogyne ramosissima*, is a rosacea, which one could call “black rice”; the latter, *Artemisia tridentata*, is wormwood.

is as if I were standing at the high altar in the holiest church on earth. I almost forget to breathe and become short of breath. I need time to collect myself and to correct my impressions and concepts about space and distance, about dimensions and angles of incidence, about colors and shapes. I notice the river down there in the granite corridor and receive an orientation aid.

Then I turn my attention to the immediate surroundings. I am standing on a promontory which, like a bowsprit, juts out to the northeast, and which is surrounded in all directions by bottomless abysses, to the west, north, east, and south, and only to the southwest connects to the broad peninsula surrounded by the river. Even at Havasupai Point, one finds oneself as if on a trampoline pointing out over the void. Considerable stretches of the river itself are within sight, standing out as a narrow gray band, and here and there the rapids are plainly seen. To the east, the regions I already knew, the gaze reaches as far as the wall of the Palisades at a distance of a good five Swedish miles. In weak light tones, this stately background is seen as through an open gate, whose Propylae are made up of sharply drawn and sharply cut promontories from the northern and southern rims. In my diary I write for the fifth time: This point still offers the most beautiful view in the Grand Canyon! It surpasses anything I have seen so far. Yes, during the time I had already spent on the Rio Colorado, my impressions of this fabulously modeled part of the earth's crust had reached a crescendo, and I took it for granted that Havasupai Point would be a climax that could not be surpassed.

After I recovered from the initial astonishment, the pad and pencils came out. For some musings in colors, the poor four hours were not enough. I began a sketch of the landscape to the west. It shows a nearby offshoot from the southern rim, which in the west-northwest merges into Fossil Mtn. This image gives a fairly clear idea of the alternation between steep ledges and vertical walls, recurring in all temples and pagodas, and of the protruding moldings, which so clearly betray the horizontal layering of the strata. With your eyes, you follow these slopes and see how they continue right down to dizzying depths right under your feet. Beyond the nearest pyramidal peaks, the usual foundation and sequence of layers in different color tones are seen everywhere in the Grand Canyon.

For almost two hours I have struggled with this sketch and go on the next one another step to the right with N 20° W in the center of the pad. In the foreground of this sketch can be seen the tip of a spur, which probably belongs to the Fossil Mtn., and which on its eastern side shows a row of four quite similar, vertical parts that, when they stick out in front of the densely shaded wall of which they are a part and are sharply illuminated by the sun, therefore stand out brightly against the black background. They resemble pilasters in a gigantic structure. A superhuman architect has made the blueprint for them. They are absolutely stunning in their decorative beauty and grandeur and one wonders if one is facing an archaeological conundrum. Is it possible that nature itself could design and model these regular wall-fixed columns? When I follow their outlines with the pencil and place the shadows as I see them, I cannot free myself from the thought that this detail of the sketch seems highly improbable.¹⁷ If anyone doubts its accuracy, he can go there and check. The journey is extremely comfortable, as prior to your arrival at the Grand Canyon the bad road I described will no doubt have been remedied and a cement road laid out in its place.

The high part that can be seen in my drawing above and beyond the pilasters is the Grand Scenic Divide [*sic*, Grand Scenic Divide] and the valley depth behind it is the Serpentine Canyon. And yet further away, other parts of the Grand Canyon's framework are visible. However, it is not always so easy to determine which is which, as in certain lighting the layers that are always at the same level melt together into seemingly continuous lines, which in reality belong to different parts. For the same reason, it is not easy to determine where the Colorado River leaves the landscape that is here in view.

On the northwest side of the Grand Scenic Divide [*sic*] is traced a spur called Huxley Terrace. Between both lies Bass Canyon. West of Huxley Terrace is Spencer Terrace, and between both Copper Canyon. Garnet Canyon is located west of Spencer Terrace. These three spurs resemble the fingers of a hand, with the flat middle hand itself being the Darwin Plateau.

¹⁷ See Hedin's admittedly improbable illustration at the bottom of p. 112 in this translation.

On the other side of the river, in the north-northwest, the mighty Powell Plateau stands out with a number of spurs to the south, southwest and west and bounded in the east by the deeply incised Muav Canyon.

At last I had only half an hour left, and it was taken up for the most part by a sketch to the N 30° 0. In its foreground is seen the furrow of the river, and for the rest the jumble of ridges and side canyons belong to the Shinumo Amphitheater. This whole part of the landscape now lay in the afternoon sun, and the shadows had not yet gained dominion over the sides of the mountains. And without this harmonious alternation of shadows and daylight, the recklessly bold sculpture does not emerge. To the furthest northeast is the north rim of the Grand Canyon, which is indicated on the sketch, the distance amounts to nearly 17 km.

It's not 5 o'clock yet! It needs 8 minutes. I take a new sheet and hastily draw up an outline of the landscape to the east. After all, it can only be the big features, a fleeting impression, a support for the memory.

Finally, I just want to quote the following lines from Darton about the geology of the area; of the Powell Plateau he says:¹⁸ "At its southeastern end is Dutton Point with great precipices of Kaibab limestone and gray Coconino sandstone with huge steps of Supai red sandstone below. At the southern end of Powell Plateau is Wheeler Point and, farther west, Ives Point, all presenting the same succession of rocks as in Dutton Point. The Granite Gorge continues west past these points, but it ends as the hard 'granite' finally pitches down and disappears at the big bend of the river south of Powell Plateau. In the depths of the canyon of Shinumo Creek and along the sides of the Grand Canyon near the mouth of that creek there may be seen a huge mass of dark sandstones, limestones and red shales of the Unkar group lying on the granite. The Unkar beds are considerably tilted and broken by many faults."

While I was drawing, Mr. West had made a fire, made coffee, and laid out our lunch-sack of pastries and oranges for dessert, and in a luxuriant shade we partook

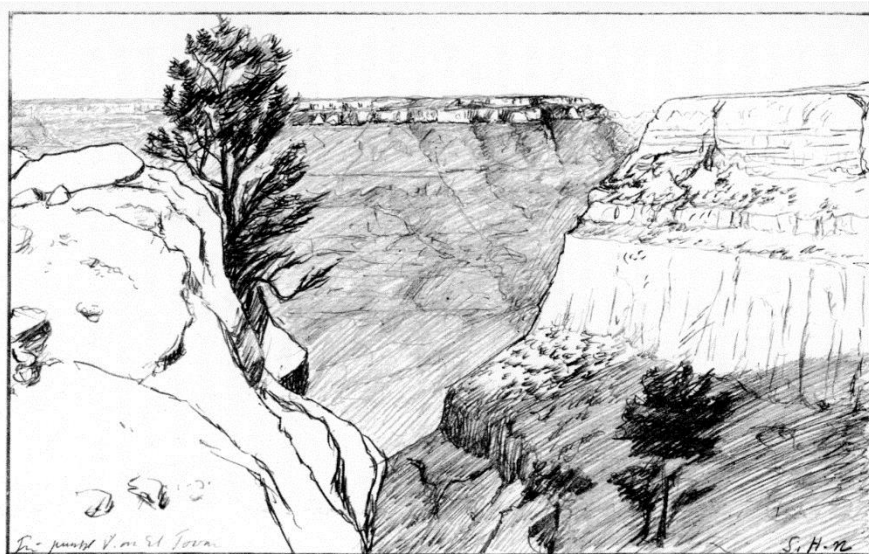
¹⁸ Hedin translated and paraphrased this passage into Swedish in the 1925 volume, omitting a paragraph in the middle of the selection. Here in this translation, however, the same selection is quoted exactly from Darton's 7th edition (1923), also omitting the paragraph in the middle.

of our late lunch. It went in a hurry and then we stowed our odds and ends in the car and returned through the wasteland and prairies.



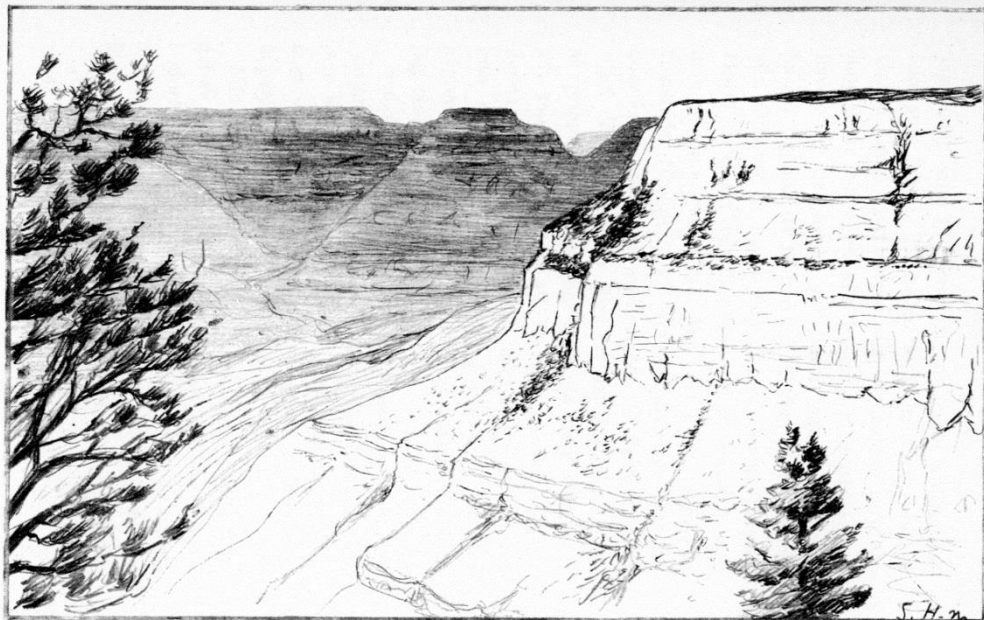
Templen sedda i tidig eftermiddagsbelysning mot N 12° V från en punkt strax öster om El Tovar.

The temples seen in early afternoon light towards N 12° W from a point just east of El Tovar.
(p. 175 in the original edition)



Till höger: Yavapai Point och utsikt åt N 60° O från en punkt belägen strax väster om El Tovar.

Right: Yavapai Point and view to N 60° E from a point located just west of El Tovar.
(p. 179 in the original edition)



Utsikt från en punkt VNV om El Tovar — mot ONO.

View from a point WNW of El Tovar—to the ENE.
(p. 183 in the original edition)



Utsikt mot väster från Havasupai Point.

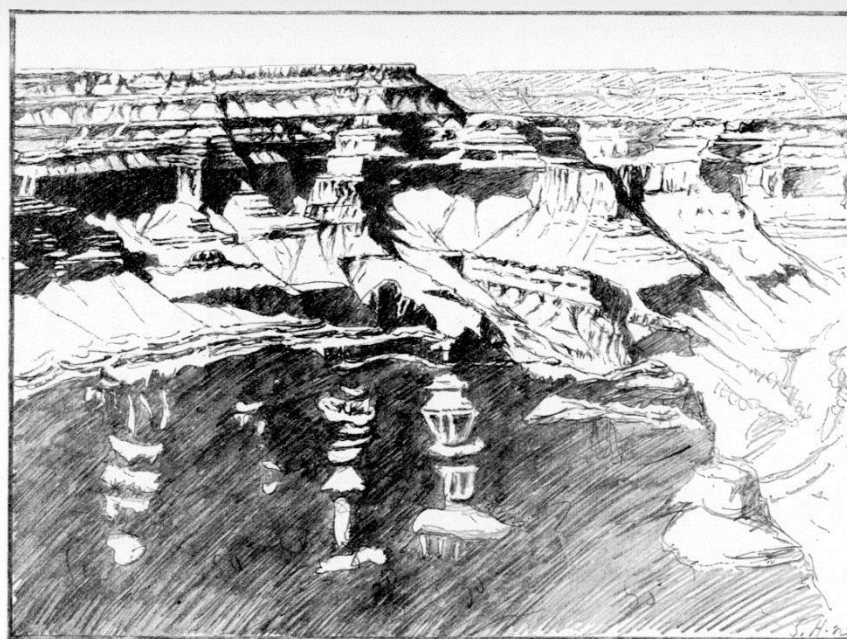
View to the west from Havasupai Point.
(p. 189 in the original edition)



Mot norr och NNO från en punkt nära Bright Angel Point.

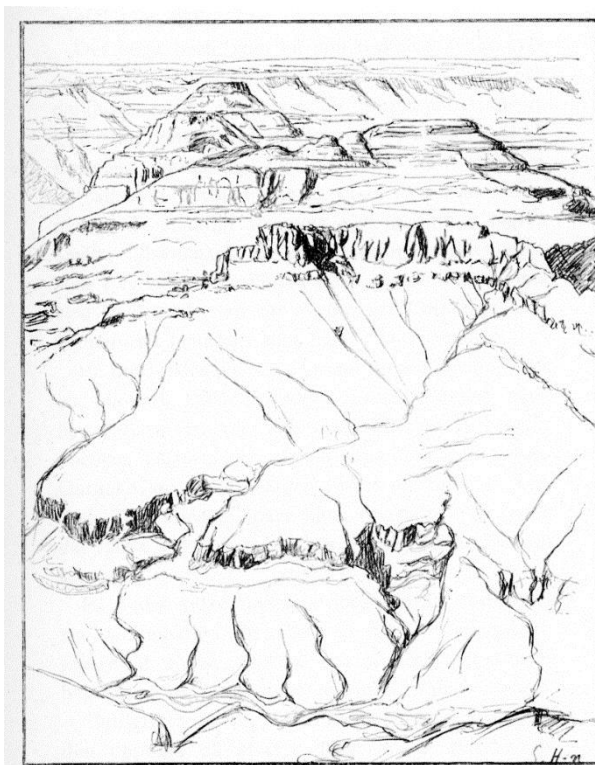
A BORTZELLS TR A B STHLM

To the north and NNE from a point near Bright Angel Point.
(facing p. 192 in the original edition)



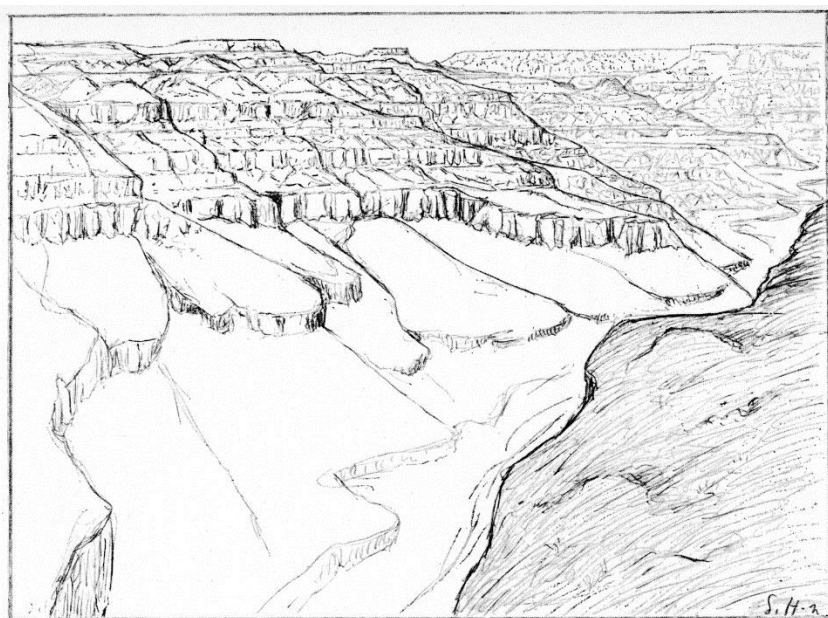
Utsikt mot N 20° V från Havasupai Point.

View towards N 20° W from Havasupai Point.
(p. 193 in the original edition)



Norra Canyonsidan. Utsikt mot N 30° O från Havasupai Point.

North side of Canyon. View towards N 30° E from Havasupai Point.
(p. 197 in the original edition)



Mot öster från Havasupai Point. I djupet Rio Colorado.

Heading east from Havasupai Point. In the depths is the Rio Colorado.
(p. 201 in the original edition)

TO PHANTOM RANCH ON THE NORTHERN COLORADO SHORE.

My first plan had been to travel from El Tovar directly to Los Angeles, and I was generally told that I could well avoid the north rim of the Grand Canyon, which in natural beauty did not bear comparison with the south. In proof of this, it was adduced that the northern brink, with its most wonderfully incised and etched outline, and its rows of picturesque pyramids and temples, presents an infinitely more beautiful sight from the southern side, than this latter, which lacks both marked incisions and detached towers and temples in views from the north side. Furthermore, we were reminded of the importance of lighting. The sun is in the south, so it is from the southern edge that you have to make your observations if you want to see the effect of the sunlight over the gigantic sculpture located in the north. If, on the other hand, you stand in the north, then the wall of the southern edge actually presents a continuous shadow without detail and without relief. Finally, it was pointed out that the northern ridge is generally a thousand feet higher than the southern, so that, seen from the opposite side, it [the southern side] therefore appears less imposing than the northern.

However, one day I met a gentleman who himself had been up on the north rim and who thought that the views from there were the best of all that the Grand Canyon offered in overwhelming natural beauty. He added that the discussion between the southern and northern brim preferences is merely a matter of competition. The Union Pacific Railway Co. is said to have the intention of building a track to the north rim of the Grand Canyon and of erecting there a magnificent hotel, which, once completed, would compete with Santa Fé and El Tovar. For my part, I think that even if this plan is put into practice, Santa Fé and Ford Harvey can be quite calm. Because whatever advantages the northern rim may have — and comparisons are otherwise impossible

here — you haven't seen the Grand Canyon if you haven't been to the southern rim in the area around El Tovar and above all at Navaho Point or Desert View. The temples in foreshortened perspective and in the fiery red evening lighting can only be seen from the south. In the north, you have their incredible rock masses much closer, but you don't master them all at once and you miss the combined intense glow of the evening sun over their slopes. I therefore do not think that a possible competitor in the north could bring any danger to the development of El Tovar — perhaps rather an advantage.

Now if one imagines a magnificent hotel on either side of the Grand Canyon, both of which would attract tourists in droves with the power of the magnet, then the question arises of building a means to join them across the valley depth. A railway is out of the question, but a road with tunnels and picturesque galleries! Such, indeed, would enable anyone, even the very old, to see the Grand Canyon thoroughly. But automobiles in the Grand Canyon would be a tastelessness that would spoil the wilderness charm of the area, a desecration that would disturb the temple peace in its depths. In this regard, I share the same opinion as Clarkson and I believe the other gentlemen at El Tovar as well: please let one circle in and over the Grand Canyon by airplane, which requires no roads and leaves no tracks behind, but no automobiles! Anyone who does not want to submit to the toils of the narrow, steep trails on mule-back must refrain from resting on the river's banks.

However, it was no art for me to make my decision. I had lived in and seen enough of the Grand Canyon to understand that I could not leave this region without also having been to the North Rim. My friends Crosby, Clarkson and Petrosa liked my plan and facilitated its execution in every way. I would ride down Bright Angel Trail, cross the river and up to the northern edge's Camp [Wylie Way Camp], where I would stay for several days and then continue by car to Salt Lake City. To this city, therefore, all my heavier luggage was sent by rail, and I took only what was absolutely necessary in a small bag, above all drawing and measuring equipment. All my odds and ends fit in a saddle bag on my mule. They phoned the stations to the north and they gladly granted my wish to have Sandy MacLean, whom I already knew, as a guide. In Colonel Crosby's cabin I got all the information I could need and a couple of new map sheets.

The last two evenings I was out at the edge to enjoy the wonderful atmosphere created by the moonlight. An undisturbed, almost eerie silence reigns over the surroundings. Only once in a while do you hear the cry of a night bird. The outermost pines cast dark shadows over the ground. Sometimes only the shadow of the trunk remains up there on the crest, while the crown's shadow hits the ground a few thousand feet deep in the valley floor. Only the nearest promontories and protrusions appear in pale blue lighting. But beyond them gapes the dark unknown chasm, where all details disappear, as if under a veil. The solemn atmosphere that prevails cannot be described in words. You stand as if stuck at the edge. It's night. The earth sleeps. Beneath me opens the immeasurable grave, whose gape is filled with the silver glow of the drabant, yet disappears in enigmatic mist.¹⁹

I should have broken up early on the 27th of June, but it was late in the morning when the last preparations were completed and provisions and packs were loaded on my mule and on Sandy's. So all that remained was a photo session. They insisted that I sit on the outermost edge of a cliff, measuring three Riddarholm towers²⁰ upon each other, and the picture that was sent home also shows that I did not unconditionally trust my own balance but supported myself with both hands. After a final farewell to my friends, I finally broke up at 11. Colonel Crosby followed me, walking to where the path from the edge plunges headlong into innumerable zigzag bends. Its beginning is located immediately west of El Tovar's guest house. In general, this trail is considered steeper than the western one, to Hermit Camp. What is certain is that to a greater degree than that, people try to parry the mule's movements by leaning back and coming to lie back to back with their carrier. Deciduous trees, not least oaks, and shrubs grow on the slopes. We are still in the shade under the almost vertical Kaibab wall. The air is lovely. Up there at 10:00 it was 23.5° C.

In his book, Darton gives us an overview of the horizons and rock types that are passed on this route and also states the thickness of the various deposits. The uppermost of them, the Kaibab Limestone, on whose crest El Tovar is built 6,866 feet

¹⁹ The "silver glow" is an allusion to the uniforms of the *Drabantvakt*, Sweden's Drabant royal ceremonial guards.

²⁰ The tower of "Riddarholmstorn" refers to the defensive Birger Jarl's Tower in Riddarholmen, the old-town of Stockholm.

(2,093 meters) above sea level, is here 675 feet high, and the Bright Angel Trail is made through its white, fine-grained beds, some strata rich in impressions of fossils shells and fragments of hard, yellow flint.

Just where this limestone ends and one enters the 310-foot thick gray Coconino sandstone, a small short tunnel is blasted and the boundary is very clear. A mighty fault is also crossed by the tunnel. The part of the canyon wall, which lies west of the fault line, has, by an elevation of the earth's crust, been raised 140 feet above the part situated east of it. Therefore, the tunnel itself is entirely located in Coconino sandstone. Incidentally, most of the Bright Angel Trail is located east of the fault line. Further down where the path transitions to the Tonto Group deposits, it runs west of the fault line. Immediately before you reach the eastern mouth of the tunnel, you can see very clearly the position of the limestone and the sandstone in relation to each other and to the mighty crack just mentioned, which caused the fracture surfaces of the earth's crust to slide against each other. Loose material from the fault area has tumbled down and formed a cone of gravel, without which it would have been impossible to lay a path and get past the otherwise impassable obstacle that the vertical Coconino Wall everywhere presents in the Grand Canyon.

The entire stretch from El Tovar down to the bridge over the Colorado River is largely northeast, but the path's small sharp bends are innumerable.

Next follows the sharp transition from the Coconino to the red Supai Formation, which here has a thickness of 1,120 feet. The American geologists have found how layers of hard sandstone alternate with layers of soft slate, which resulted in atmospheric elements carving out terraces, shelves and tables, always red and often of striking architectural effect. This structure appears particularly beautifully in The Battleship, which rears its hull immediately to the west of our trail, and in several other cliffs in our vicinity.

Then follow the Redwall cliffs with a height of 550 feet. Darton reminds us of a phenomenon that is very common and that is not least noticed when trying to reproduce the Grand Canyon's giant walls in color, namely that the vertical drops of the Redwall in different shades are colored red by material that the rainwater brings

with it from red shales that there exist above it, while this limestone in the fault itself is light grey. The red color is thus a secondary phenomenon, which nevertheless gave rise to the name Redwall.

The absolute elevations are given on metal marks [benchmarks], set by the U.S. Geological Survey. Here, too, time and time again, you get to know how deep you have sunk below the edge up there. At the mark 3,876 feet above sea level there is said to be a platinum deposit, according to what Sandy informs me. The part of the trail that leads there bears the significant name Jakobs Stege [Jacob's Ladder], and the slopes here are really neck-breaking.

The deposits of the Tonto group, on which we now find ourselves, are 800 feet thick. And the Indian Garden, from where we are only a few minutes' ride at the height mark of 3,876 feet, is thus located in the Tonto. The side canyon that we followed all the way is called Garden Creek.

The length of today's journey amounted to 12 English or 2 Swedish miles and we were on the way for five hours. But we also rested several times to draw, and in the Indian Garden we enjoyed a lovely rest. At 1 o'clock the temperature here amounted to 35° C., and 45° in the sun. Indian Garden is a lovely little oasis in this sun-baked stone desert. Here, life-giving springs flow during the day and form a cheerfully rippling stream of clear, warm water (23.6° C). Darton tells us that the Indians used it to irrigate their cornfields several hundred years before the arrival of the white man. Willows, overgrown with vines and more luxuriant vegetation, form a cool and moist arbor, irrigated by the spring flow. You don't want to leave the pleasant shade to expose yourself to the sun's blaze again. The buildings belonging to El Tovar, which stand at the beginning of the Bright Angel Trail, are visible from below as small dots.

The Tonto Platform with its subdued elevations is a terrain feature that recurs most everywhere in the Grand Canyon. Our trail leads on its hard sandstone foundation after leaving the Indian Garden and its creek. We ride a little to the east and then have on the left and partly in front of us the temples with the names of Isis, Buddha, Brahma and Zoroaster. On the same side we pass by The Tonto Trail, the beginning of which we saw at Hermit Camp. High up on the slopes below the southern edge, a

crowd of riders can be seen. Thanks to the distance, it looks like they don't move out of the spot. Yavapai Point and Yaki Point soar high above us as sharply marked projections into the Canyon's depression. We pass two caves a little above the ground in a vertical rock wall; in these cliff-dwellers had their homes in ancient times. A small herd of "burros" crosses the path barely a hundred meters in front of us. They disappear among the hills in a cloud of light gray dust. Another herd looms in the distance. They are not regarded with the same attention and admiration as their wild ancestors in Tibet. After all, they are just strays and as much as we ourselves are strangers in these solemn surroundings. Only chance has brought them here. In erosional furrows and ravines, where bushes grow and among the dried tufts of the slopes, they find their nourishment.

We now make our entry into Pipe Creek, in which Garden Creek joins lower down. There remains a green-painted cabin from the time when Phantom Ranch, our next target, was built. After a short lunch break we pass Burro Spring and its small trickle, and half an hour later Phantom Ranch appears in the depths below us on the other side of the river. On a piece of paper I have noted that we have two miles left to the bridge over the Colorado River. A short while later all the rocks and ledges which had hitherto obscured the river gave way. The landscape now again becomes impressive in its dark, cramped wildness, and we go down breakneck slopes into The Granite Gorge, which here is 1,380 feet (421 meters) deep. Already from the Tonto platform we've had a killer view of its channel, but now we're standing on its edge, and all the details come to light. The further down we got, the loud roar of the rapids could be heard. Narrow as a matchstick, the suspension bridge appears over the river, and its equally narrow shadow lies like a black line across the gray water.

For all our way, as also from El Tovar, we had had an excellent foreshortened view of the valley which, from the northeast, opens into the Grand Canyon, and which is called Bright Angel Creek. We would ride up there in the following days. Its lower parts are cut into granite and gneiss, but in its middle regions this valley cuts through the rocks of the Unkar Group. Both in the northwest, north of the river one and in the east, south of its course, the Unkar Formation comes to light in several places.

The river is 300 feet wide and 25 to 35 feet deep. At the southern bridgehead we rest in the shade under the rocks and I draw a sketch while Sandy brings the mules across. The bridge measures 420 feet in length and 5 feet in width and has a single course of planks. At the sides, it is equipped with wire mesh and you can be completely calm, even if the mules go crazy. On the other hand, it can be dangerous to be on the bridge in strong winds. Sandy tells us that once during a heavy storm the bridge happened to swing so violently that it "twisted" around. Since then it has been further braced by means of iron cables at the sides. The elevation here is 2,500 feet and we have thus fallen 4,366 feet (1,331 meters) from El Tovar.

After crossing the bridge, one rides for a short distance on the cornice path immediately over the curving bodies of water on the right or north bank. Then you leave it and you cross a belt of flying sand and bushes and finally reach the point where Bright Angel Creek flows into the Colorado River channel, The Granite Gorge. In the side valley flows a stream, on the left bank of which the path leads up to the pleasant rest station of Phantom Ranch, where pleasant stone cabins are erected, each provided with two small porches, protected against insects by means of fine netting. As in Hermit Camp, the kitchen and dining room are located in a separate cabin, where the guests gather at set times.

Not much of the sunset was visible this evening. Phantom Ranch is located at the bottom of this deeply incised valley, and you are trapped as if in a corridor. Only the crest of the southern canyon rim around Yavapai Point stands gilded by the setting sun, and on the highest crests, which frame Bright Angel Creek, gleams here and there a streak of gold. They soon die out, and it gets dark quickly and earlier down here in the depths than on the open expanses at El Tovar.

My cabin has only one room, a pleasant house with Indian rugs on the floor and a bath where you can cool off your body with a most wonderful shower. At 10:30 it was 34.6° C on the veranda, where the bed was. I only needed to pour water around the floor, roof and grating to bring the temperature down to 28.6° C. The moon rises slowly. The rock wall on the right side of the valley is illuminated almost down to the ground, while the left is in compact shadow. It still takes a while before the silver light has time to get over the crest. The chirping of the crickets and the babbling of the

stream are the only things that disturb the silence of the night. I had expected a descending mountain breeze of cooler air, but the prevailing draft barely managed to rustle the leaves. The heat of the day therefore remains hot and oppressive and the mountain sides heated by the sun radiate their heat during the night. To some extent and despite the peculiar beauty of the place and its great comfort, one cannot free oneself from a certain "covered wagon feeling" and longs for more open expanses. I therefore decided to spend the next night a little higher up in the valley.

At 5 a.m. on June 28 we had 25° C., at 10 30.1 °, and at 11 31.2°.

Very close to a point where Bright Angel Creek falls into the Colorado is a little cabin built on a hill. There lives all year round, alone like a hermit, a gentleman, who daily measures the water level of the river and every other day its water quantity, and sends telegraphic reports thereof to Imperial Valley and Denver. Water is brought to his simple abode through a pipeline, which has its root above the Phantom Ranch, but he takes his meals in the dining room with the tourists. His name is J. W. Johnson and his title U.S.T.S. [*sic*] Recorder Grand Canyon, Chief Hydraulic Engineer U.S. Geological Survey, Washington, D.C. I thus met with Mr. Johnson and received from him the following information.

The measurements are carried out from a basket, which runs on pulleys along a cable stretched next to the bridge. The cable is divided into 20 sections at 15-foot intervals, for the width of the river here amounts to 300 feet. At 19 points the basket is held still to allow measurement of the current velocity at two different depths as well as the river depth. Now the average depth was close to 30 feet. During the winter season (Sept.-March) the quantity of water falls to its minimum which is 5,400 cubic feet per second, with the prevailing fall corresponding to as many horse-power. At the time of my visit the quantity of water amounted to 61,500 cubic feet, and the water level was 16 feet "above normal." By June 4 it had been up to 26.40 feet and in 1921 to 32 feet. On June 4th, the amount of water had also been twice as large as now, on June 28th, or 120,000 cubic feet per second. The velocity of the current on the latter day averaged 7 feet per second. The maximum speed was 11 feet and the minimum speed was 1.5 feet per second. The day before my arrival the amount of water

had been 3,000 cubic feet less than on June 28th. That same day, Bright Angel Creek carried only 30½ cubic feet of water per second; it originates from four sources.

In 1923, Mr. E. Kolb would make the daring journey by boat down the Colorado River for the third time. He was the leader of a group of ten topographers with four boats.²¹ In 1922 they had begun their surveying and mapping work from the Green River in Utah. They had been at work for two months and would now continue down to Needles in California for three months. I had heard a strange and extremely well-illustrated talk about this in El Tovar by Mr. Kolb himself. The first person who became widely famous for such a boat trip was Powell, in 1869. During such an insane operation, where you are constantly in danger of being crushed to pieces in the rapids, you need the strength of both arms more than ever. Powell only had one arm, but he still managed.

It is estimated that around three hundred million tons of mud are brought to the Gulf of California annually. In the region known as the Imperial Valley, which is situated on the border between Arizona and California not far from the mouth of the river, the most fertile soil has, over the course of countless ages, accumulated thanks to the sediment of the Colorado. But as the river flows in its furrow through there, there is no exchange of water, and therefore acts as a perfect funnel. In later times, however, they used the river, dug canals and developed an irrigation system, which captured millions of acres of land from the desert. A few years ago this wasteland was worth nothing. Now that the land bears cotton and fruits endlessly, one can pay as much as \$2,000 for an acre.

It is in the interests of irrigation that Mr. Johnson makes his observations. Daily he telegraphs to Umah [Yuma] (“headquarter in the Imperial Valley” [written in

²¹ This confused note refers to the U.S. Geological Survey damsite surveying expedition on the Colorado River under the leadership of geographer and topographer Claude H. Birdseye. Emery Kolb (brother of Ellsworth, who in 1914 had published a book about the brothers’ first Colorado River expedition in 1911–1912) was the head boatman of the Birdseye expedition in Grand Canyon. The Birdseye expedition was Emery’s second trip on the Colorado through Grand Canyon, in 1923. Hedin heard Emery’s lecture just prior to Kolb joining the Birdseye expedition—although surely this was at the Kolb Studio where daily lectures were presented, illustrated by the Kolb brothers’ motion pictures of their trip two decades earlier. The Birdseye expedition did not leave Flagstaff until July 18 (after Hedin had left the canyon) to start the Grand Canyon segment of the surveying venture from Lees Ferry. Hedin may have mixed information from speaking with Emery, who apparently mentioned the forthcoming survey through Grand Canyon. Hedin does take note of this expedition, in the past tense, in his Introduction.

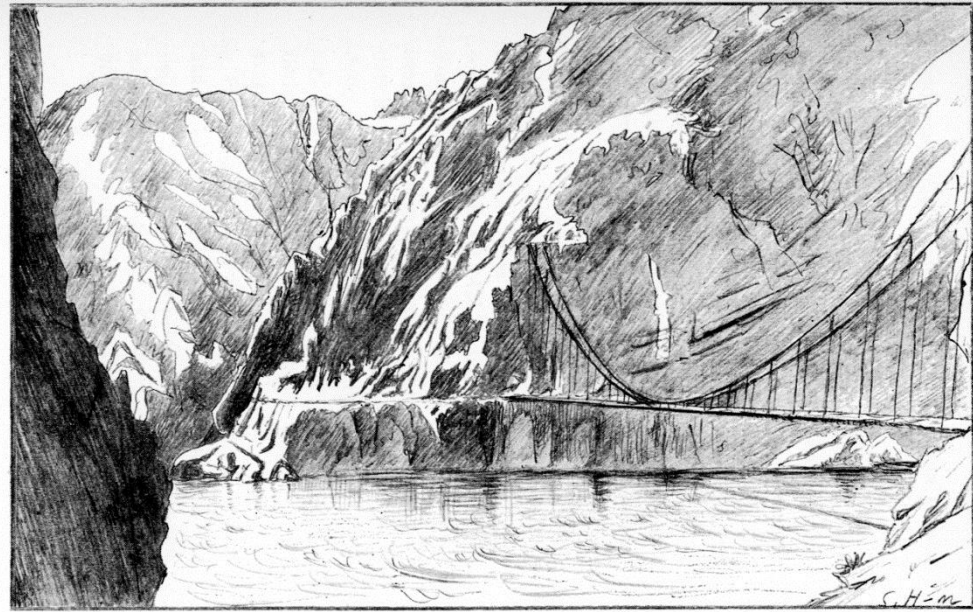
English]). You therefore know a full seven days in advance what to expect in terms of the amount of water and can regulate your canal dams accordingly. Later on, in the company of one of the greatest soil conservationists in California and especially the Imperial Valley, Harry Chandler, I would have the opportunity to visit this remarkable area.



Aftonrodnadens sista återsken på Palissaderna. Från Point Royal.

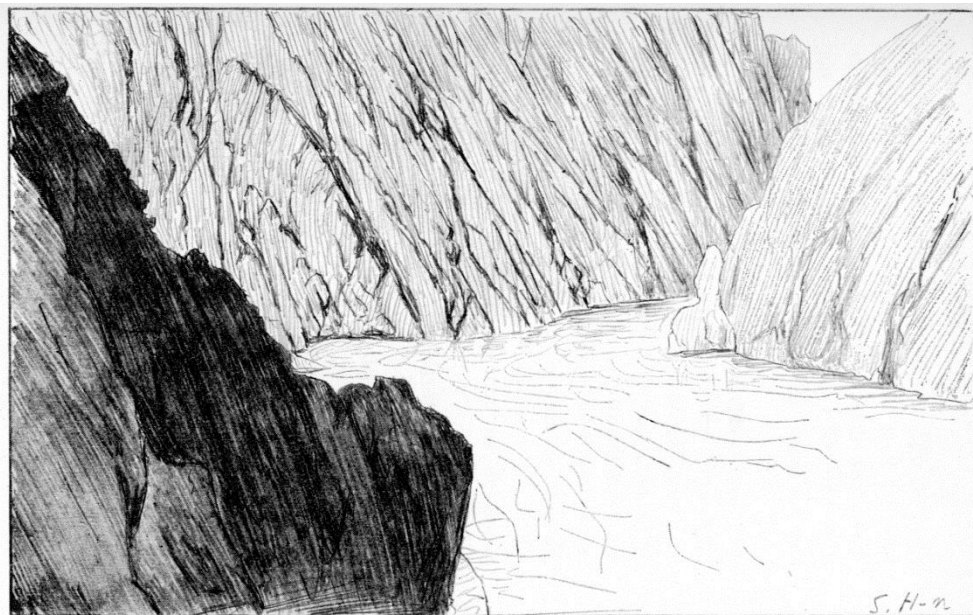
A. BÖRTZELLS TR. A. S. STHLM

Evening afterglow on the Palisades. From Point Royal.
(facing p. 208 in the original edition)



Hängbron över Coloradofloden vid Phantom Ranch.

The suspension bridge over the Colorado River at Phantom Ranch.
(p. 213 in the original edition)



Uppåt Rio Colorado mot öster från hängbron.

Up the Rio Colorado to the east from the suspension bridge.
(p. 217 in the original edition)

A RIDE ACROSS THE GRAND CANYON.

I had intended to stay behind to see how Mr. Johnson did his measurements, but in the afternoon Sandy received a phone call that we must hurry to the north rim, as the mule strings were needed at El Tovar. Although it was already 2 o'clock, we got ready for a shorter ride of a Swedish mile up to Altar Falls [Ribbon Falls], where we intended to spend the night. At Phantom Ranch the temperature was then 36.1° C., but at 3, some way up Bright Angel Canyon, 39.6° and 22.8° in the creek. The valley was narrow like a corridor. In one place it constricts into a twenty-foot-wide culvert. Here and there grow willows and bushes. The trail is pretty bad, but for mules any terrain will do. The valley is filled with the sound of the roaring stream and in frothy white rapids the otherwise clear green water breaks between stones and boulders in its bed. No less than 86 times we had to ride across the little stream.

Here and there the northern rim looms ahead, the very crest of the plateau in which the river has cut its way. Then the valley widens more and more. On the sides poplars grow, usually single and often bearing a lush crown of leaves. In a small clearing where several trees formed a grove, we took a short break on a wonderfully shaded sand hill. The temperature had now dropped to 37.8°. But we also climbed up, about 1,200 feet in all.

Finally we turned into the mouth of a small side valley on the left hand and soon arrived at Altar Falls, where the absolute elevation is 3,800 feet. The small valley is like a niche or a pocket in the red rock belonging to the Unkar Group. Inside this niche, in its vertical bottom wall, the spring stream, which comes from areas higher up, has cut a notch or a channel and over its edge the water plunges down through the air in a free-falling jet. Plashing and splashing, the water hits the crest of a nearly vertical cone of lime sinter 80 feet high, reminiscent of an altar, and washes down its lush moss-covered sides. The flow seethes and sizzles as it whips the moss and then hits

the small basin that has formed at the foot of the cone. Even at the sides, small seeping trickles find their way down among the gravel and moss, where large, wet, dark brown centipedes tramp around. In the fall itself at 6 a.m. the water had a temperature of 18° C. Of Bright Angel Creek's 30 cubic feet per second, only a small portion originates from Altar Falls. The height of the falls is 115 feet.

One could not wish for a more appealing location for an outdoor camp. Just 30 or 40 steps below the fall, the ground consisted of red sand. Here grew an occasional poplar and a few bushes, and right at the foot of the vertical, partly overhanging rock wall, my trusty cowboy dug a depression in the sand for my bed. He had brought both blankets, sheets and a pillow. The mules are tied up below the camp so as not to escape. We had water close at hand, fuel was plentiful, and soon the pots were boiling, and the food we had brought from the Phantom Ranch was laid out on the sand. It was 27° C in the air at 8, the evening was divine, still and clear. Dusk was closing in and by the flames of the campfire we ate dinner, just the two of us. Coffee and pipes completed the rendezvous and we crawled early to bed. I lay awake until midnight, enjoying the wonderful atmosphere and listening to the splash of the fall and the rippling of the stream, accompanied by a whole concert of frogs and crickets. As I lay I followed the course of the stars across the narrow strip of sky that was visible between the ridges of rock on either side of the valley. The small valley with Altar Falls runs from northwest to southeast. One by one the stars disappeared behind the mountain wall southwest of the camp. The moonlight silvered this high wall, and finally the full moon itself emerged over the edge of the rock wall northeast of the camp. I dozed off for a while, and when I woke up again for a bit, even the moon had passed through the dark blue space between the cliff tops.

On June 29 at 7 the temperature was 22.2° C. in the air and 16.1° in the stream. We ate breakfast, packed our things and continued the ride up through Bright Angel Creek, like yesterday always crossing the stream. The trail is bad, but it is also rare for tourists to stray from the southern to the northern rim — this year it had hapened only a couple of times. At a small side ravine on the left [left side as the creek flows], which Sandy calls Wall Creek and which has a disappearing little trickle, the elevation above sea level is 3,900 feet. From here, with the help of binoculars, you can see El

Tovar and the smoke rising from a locomotive. Just before 10 it was 39.6°, the highest degree I have read in the Grand Canyon, apparently increased by the radiation from the rock walls, because up in the freer expanses the temperature did not rise so high.

Now one leaves the valley floor and climbs a horribly steep mountain ridge to Manzanita, a name which, according to Sandy, means “little orange” in Mexican; this shrub occurs here. Pines and junipers grow on the slopes of the other side of the valley. Most of the way goes through thickets of hard-branched bushes. After we have reached the top [of the ridge], it is a headlong plunge down to the stream again. From the left side of the valley again comes a small trickle, which forms beautiful falls and cascades over the outcrops. Now there is a forest of fir and pine on our side.

At Roaring Springs we are scarcely three-quarters of an English mile distant from Bright Angel Point, which rears its mighty walls to the west-southwest steeply and vertically above us. And yet we still have 5½ hours to get there, for we have to ride several miles northeast up through Bright Angel Canyon before we reach a place where the terrain allows us to come up on the plateau, and then we have to travel just as far southwest to reach camp at Bright Angel Point.

From the right comes a small tributary, which, in foaming and plunging falls, rushes helplessly down overgrown slopes. The elevation is 4,650 feet. The water in our hissing and rushing stream has a temperature of 12.3° C and feels ice cold. Here in the area, the vegetation is luxuriant, and red rock ridges and walls stick out of the greenery, producing festive effects of fresh, vibrant colors.

At 11:30 we treat the mules and ourselves to a half-hour break, which I use to make a couple of quick sketches. The scenery is enchantingly beautiful. It’s warm and lovely here — how I would not have liked to have remained in this place as well — but we have to hurry, the mules were needed in El Tovar. We have just crossed the stream and are now on its right bank, having previously ridden on the left all day.

Now it passes up the terribly steep slopes of the right side of the valley in zigzags, out and in, up and down in countless bends. Sometimes the path is no wider than a hand and runs on the edge of the abyss. All it takes is one misstep by the mule! The worst is where the narrow path slopes outwards and the outer edge is soft. Once, the

foundation gave way under the weight of my mule; she lurched with the front outside foot but parried well by falling to her knees on the inside legs and thus was able to get up again before she lost her balance. But "Sparkplug," as she is called, is also a first-class animal, and I feel completely at ease on her back. Here and there are round boulders and high stone steps in the middle of the path; the zigzag bends are only a couple of meters long, the mule climbs, jumps and darts up the path and you make yourself as agile as possible to follow and facilitate her movements. It works well where it goes up slope, but when one is carried up such stairs, one finds the situation unpleasant. In the depths below you see the lush greenery of the valley like an oriental carpet between the red rock walls, you see the dark malachite-green stream and its snow-white foam and you listen to its roar.

Again we ride for long stretches through the most beautiful forest of conifers and deciduous trees and through dense thickets. Where you ride under overhanging rock walls and have blocks of rock jutting out over your head, you wonder if you will make it past before the block comes loose and tumbles down to join its predecessors on the banks of the stream and in its bed in a roaring, rolling leap. Among the minor discomforts, which you don't get attached to, are the experiences you have when the thorny branches of the bushes through which the path winds tear holes in your trousers.

So we ride up and down, but on the whole we approach the edge of the plateau, which in the course of the day gets closer and closer. The path is red, the trunks of the junipers black and their crowns of needles dark red. A difference between the south and north rims of the Grand Canyon is that the latter is very rich in vegetation. At places the forest is lush in Bright Angel Canyon.

We ride past a lone tent on the bank of a small stream from the right side of the valley. Some workmen live there, who have to fix the most difficult defects of the trail. In some places it is quite life-threatening, in others tolerable. But the landscape is always divinely beautiful and between the trunks of the trees the most wonderful views open up. You ride as if through natural galleries and are torn between the attention you want to devote to the path, out of self-preservation, and the one you constantly want to bestow on the images of the mind that change every minute.

Shortly after dinner, we rest for a while at the edge of the small Trough Spring, where the air temperature has dropped to 33.6° C. You begin to feel that you are approaching more open expanses and that you are no longer trapped in narrow ravines. From the neighborhood of Roaring Springs we are constantly on the foothills of the right side of the valley, usually at a considerable height above the valley floor, though not so high; we always hear the roar of the stream.

On the left side of a small valley, we continue to ride upwards through a forest of oak and birch with very black trunks, through thickets of bushes and thistle and higher up through a lovely forest of yellow pine and spruce. When we take short breaks to let the mules breathe out for a while, it is always in the deepest shade. Letting our eyes travel downward through Bright Angel Canyon, we see just to the left of its opening the temples of Brahma and Zoroaster as tall, imposing pyramids against the lighter background of the southern Canyon rim to the south-southwest. On the other hand, the northern edge of the Canyon, towards whose crest we strive, no longer looks as impressive as it does from down in the valley.

Where the path is narrow and treacherous we meet a caravan of mules. Fortunately, their leader saw us in time and waited in a clearing, where we could get past them without being pushed down a cliff. Spruce, pine and juniper form entire armies on the slopes. On the other side of the valley, to the east and at about the same height as we have reached, the boundary between the red Coconino and the white-grey Kaibab appears with extraordinary sharpness. A couple of startled deer run in light leaps through the forest. On the brink of a precipice with the drop below them, they stop and watch us with pointed ears, immovable as statuettes, before their silhouettes disappear again like spirits.

Shortly after 2 we cross the last threshold and are then up on the almost-level surface of the Kaibab Plateau. In a coniferous forest, among whose trees the occasional aspen raises its crown with quivering leaves, we take a lunch break at the edge of a "tank," dug in the ground, surrounded by dikes and intended to store rain-water for the livestock. The temperature is pleasant, 29.5° C.

Then we had another couple of miles to ride through the most beautiful spruce forest before we reached the North Rim Rancher Station [*sic*] and Vaughan Jensen's Camp. Jensen was at home and his car was ready. He was a big, strong man, born of Danish emigrants, whose mother tongue he never learned. Now Sandy left me in good hands and, after a thank you and a handshake, turned to cover the long way down the slopes to Phantom Ranch. Jensen and I got into the car, passed Bright Angel Spring (10° C.) and had just three miles to Wylie Way Camp, the only tourist station on the North Rim.

Fifteen square tents with wooden frames and plank floors are pitched there, furnished with a bed, table, chair and wash basin. The manager, Mr. McKee, lives with his wife and son in a larger tent, on the side of which the kitchen and dining tent are pitched. In order not to miss the first evening's sunset, Mr. Jensen and I went out to Bright Angel Point, which during the course of the day I had seen from down in the valley. One has to walk a good distance on the crest of the narrow vertical spur, in front of whose extreme promontory rises a pillar of Kaibab limestone, partly detached and connected to the solid rock by a small wooden bridge, suspended over dizzying depths. It is this pillar that bears the name Bright Angel Point. Its crest, which is only a few meters in diameter, has two ledges, the upper of which forms a natural shelf or round bench. Here one reads the U.S. Geological Survey's elevation figure of 8,153 feet. You could not have vertigo while on this minimal surface, which sticks up like a small island, a cut out of the ocean of air, and from whose edge the sides of limestone piles drop vertically thousands of feet into the depth. It's like standing on the capital of a giant column. For my part, I stuck to the stone bench and was happy not to have to stand, because no matter how you behave, you are only a meter or two from the edge of a great fall. But that matter didn't seem to bother Jensen in the slightest. For when he explained the landscape to me, he placed himself so, in the true sense of the word, on the extreme edge, that he had his toes hang over it. I gasped and felt goose bumps down my back, but said nothing. He stood there as safe and straight and calm as if he had stood in the middle of the floor of a hall, pointed to the various temples and valleys, letting his eyes wander around the horizon, and did not even seem to notice this immense depth that he had right below him. After all, you can try to stand

on the outermost edge of a ledge, which runs from the roof of a four or five-story high house, and stand there unmoved and look out over neighboring roofs, unconcerned about the street that gapes below. The only difference is that at Bright Angel Point the height of the vertical wall was ten times greater.

But if we look down to the bottom of Bright Angel Canyon, to the neighborhood of Altar Falls where the distance in a straight line does not amount to $2\frac{1}{2}$ miles, there is a difference of elevation of 4,350 feet. That is how much, or 1,326 meters, four and a half Eiffel Towers on top of each other, we had climbed during today's ride from Altar Falls. The entire trail we traveled can be followed with the eye down there in the depths, even if the path itself disappears in the terrain or is hidden under the greenery.

The projecting part of the Kaibab Plateau on whose extreme promontory we stand is bounded on the northeast by the valley at the mouth of which we had passed Roaring Springs, and on the southwest by the valley of The Transept. To the south, the temples of Deva and Brahma reign with their bright, sunlit spires sharply outlined against the lighter-toned backdrop of the southern Canyon rim, their sharp shadows and brick-red cliffs descending to the Bright Angel Canyon floor.

An evening on the crest of this column truly trembles the soul, which one never forgets. Regardless of my anxiety that at any moment Mr. Jensen would lose his balance and disappear over the limestone ledge, I gasped at the sight of this landscape, which defies all words and all clumsy attempts at pen and brush. You feel overwhelmed and become completely silent. What is the use of speaking when language lacks the means to express the feelings one experiences. It is best to humbly admit that, measured by the dimensions of this fabulous landscape, you are worth little more than a grain of sand, which is carried down the rapids of the Colorado to the sea.

Even from a topographical point of view, this view is instructive and orienting. When one sees all these pyramidal temples from El Tovar or other points on the southern rim, they appear foreshortened and obscure one another, forming one ungainly jumble, a labyrinth of vertical or transverse mountains most wonderfully

modeled. But here, from the northern rim, you can clearly see how the temples rise on the back of one and the same south-facing spur from the Kaibab Plateau. At my current vantage point I was far north of the temples of Deva, Brahma and Zoroaster and saw them somewhat from the side, but also foreshortened in a completely different perspective than from the south. The concepts now clear, it becomes more natural and easier to follow the main paths of erosion, because right under your feet you have secondary valleys of Bright Angel Canyon's denomination and, still closer, valleys of the third order, such as The Transept. And further, one can follow the erosion's corrosive intervention in the solid rock masses step by step to smaller and smaller orders of magnitude, even to the smallest incisions caused by the rainwater since immeasurable periods of time. *Gutta cavat lapidem non vi sed saepe cadendo!*²²

The offshoot from the Kaibab Plateau, to which belong the temples just mentioned, thus rises like an immense dividing wall between the Grand Canyon and its side valley, Bright Angel Canyon. This dominant topographical feature also appears very clearly in the watercolor presented here.²³ The lighting was also extremely beneficial. It was late in the evening. The southern rim and its entire wall were mostly in shadow. But thanks to the distance, which here amounted to 10 or 11 miles, and innumerable reflections from the lower regions of the Canyon, even the dense shadow fields appeared in discreet grey-violet tones, while the shadowy parts on the western sides of the temples and in the crevices of the slopes appeared dark, almost black. Here and there projecting portions of the southern Canyon rim were struck by the sun's rays and formed vertical fields of light of the most magnificent effect. Most beautiful of all is the spine of the temples. Their high, badly weathered cupolas of Kaibab Limestone glow pale yellow-gray with a shimmer of pink, but beneath them follow the Coconino and Supai beds in intense brick-red tones. In the depths below us, dark shadows are already brooding over the winding trail in the valley floor, which we have traveled during the course of the day, but in my picture the dizzying distances are obscured by the dense greenery in my vicinity.

²² Latin: A drop hollows a stone not by force but by falling often!

²³ Hedin refers to the color plate at the beginning of this chapter in the 1925 volume (for which see p. 142 in this translation, the color image of "Deva, Brahma and Zoroaster temples from Bright Angel Point").

However, Mr. Jensen roused me from my dreams, and when on the road from his Camp I asked him how it connected with the 40,000 deer, which, according to what I was told at El Tovar, grazed in the meadows of the northern range and in its forests; and Mr. Jensen replied that this figure was probably close to the truth and that I could see my fill of deer if I was careful towards sunset. I added to our conversation a suggestion that, in order to make use of the evening, we could go and look for the beautiful, peaceful animals. These spend, at least now in the summer, the whole day in the hiding places of the forest and just at and after sunset come out into the open terrain to graze there all night; whether this is due to the fact that the forest is cooler during the day and more free from blood-sucking insects or, on top of that, that the deer have an easier time keeping an eye out for their enemies lurking in the trees, the felines, than at night, when they feel safer in free and open terrain.

We had 16 miles to go to the so-called V.T. Park ("Viti" Park),²⁴ where the road emerges from the forest to wind over and along long belts of meadow land. The sun had set and dusk was beginning to lay its hand over the earth. But the sky was clear and it was still bright enough to see clearly. We pulled over in the meadow. There a couple of deer leaped in elegant, elastic leaps away over the grass. Wait, said Mr. Jensen, there will soon be more!

On the next wide area I counted 85 in a herd, and no less than six herds of the same size were in sight at the same time. In addition, many scattered deer were observed singly or in pairs. They were no longer shy. As the car rumbled past their pastures, they raised their heads from the ground and watched us intently, twisting their necks as we moved forward, and only when we were quite close to them did they turn their heads and eyes toward the forest and dart into the shadows between the trees. This beautiful and enchanting spectacle was then repeated again and again. We had most of the animals to the left of the road and they stayed close to the edge of the forest. Once we had a herd of about twenty individuals to the right of the road, where the meadow was narrow and the forest very close. Instead of running into it, the animals decided to take refuge in the forest to the west, but to get there they had to cross the

²⁴ *Hedin's footnote:* When I asked what the two letters meant, the answer was that they were chosen because they are easy to burn into the cattle's hides and merely denote a mark that enables the owner to distinguish his animals from those of his neighbors. [It was the cattle brand of Utah ranchers Van Slack and Thompson. —*Ed.*]

road in front of our course. They did not run in pairs, but almost in goose march. And the last ones, who were in no hurry, made me tug Jensen by the sleeve, because they weren't five meters in front of us and we had good speed. But their dare succeeded, and they joined their comrades in good health.

As dusk became too dense, we turned back to Wylie Way Camp near Bright Angel Point. Now it had become dark, but in an open place in front of the tents a huge log fire had been built, around which chairs had been placed. Some tourists in their own cars had arrived from Salt Lake City and the host of the place, Mr. Thomas H. McKee, was just telling them about the Grand Canyon. With his wife and son and a few employees, he annually spends the four months of the season from the beginning of June to the beginning of October at Wylie Way Camp and derives his income from it. The fifteen tents, along with four new ones, which were just under construction, are packed up in October and kept in good storage over the winter, when they would otherwise be destroyed by snow and storms. The McKee family spends the cold season in Pasadena, California, but always longs to return to the Grand Canyon.

Mr. McKee told how the Panama Canal caused an interruption to the railways in these parts. Namely, steamboat freight is 25 to 30% cheaper. The ships not only take goods but also passengers from the overland roads. So, for example, California fruits are now shipped in cold storage through the Panama Canal to New York and Europe after always having been sent on rails across the continent. The railways therefore do what they can to draw the flow of travelers to their lines through the development of the enticing attractions that exist. And the prime lure is, of course, the Grand Canyon; to the smaller belong Zion National Park and Bruce [*sic*] Canyon.

In Mr. McKee I found an unusually capable, knowledgeable, and amiable man, and the days I spent in his company are among my best memories of America. He is a naturalist and writer and tells in various magazines both about people and animals, not least about the puma (mountain lion) and about the breed of dog that has been trained to hunt this feline. He also told me a few things about the cougar. The cougars, who have their hunting grounds on the north rim of the Grand Canyon, are fat and clumsy and do not exert themselves on the hoof. But they are still bloodthirsty and when they have been killed in large numbers, you soon notice how the deer stock is

growing. Here in the area the puma is called a “couger.” He has his dens in the northern slopes of the Grand Canyon and comes up to the forest at night. He lurks in the trees and jumps down on deer that pass by. A few days before my arrival a cougar had taken a deer a couple of hundred yards from Wylie Way Camp — as was betrayed by the skin and some bone fragments found one morning. When the cougar kills a deer, it eats its fill and covers the remains with leaves and twigs or buries it, only to return two days later. If the meat has meanwhile become bad, he does not touch it but prefers to trick a new victim. But if he then fails, he is fine even with mildly bad meat. Coyotes, bobcats and wildcats follow in his wake to feast on what he has left of the spoils. They themselves only attack young animals. In areas where deer are plentiful, the cougar kills a victim every other day and eats only the finest bits and drinks the blood.

Uncle Jim [Owens] is a great and famous “lion killer,” who in his time was employed by the government with the task of killing as many predators as possible for the sake of the deer. For 25 years he hunted the puma and had killed 1,500 in the forests of the Valhalla Plateau, of which around 1,100 were in the area. In doing so, he had bred and trained a special breed of dog, which became specialized on the puma, followed its paths in cliffs and forests and chased them up into trees, where they could be easily shot. The dog, which was the progenitor of this family of cougar killers, had single-handedly driven up 607 cougars, but once following the trail of the 608th, he ventured too far out on an ice-covered cliff, lost his footing, and plunged into the deep. But the cougar, which had kindled his hunting to such a fatal imprudence, also had to let his life go. Once, President Roosevelt himself came to Valhalla Plateau to hunt cougars under Uncle Jim’s guidance. The hunt was so successful and the president so delighted that he gave Uncle Jim a hunting rifle with a gold nameplate as a memorial. The old man collected a salary from the government and he was also paid by farmers and cattle owners for his war of extermination against the predatory felines.

Yes, Mr. McKee really could tell stories about both animals and people. One of these had a little cabin — which I afterwards passed on the way to Salt Lake City — called the V.T. Ranch and called V.T. Park for the scene. There, eighteen months before my visit, the following dramatic episode had taken place. In a town in southern Arizona, a man had stolen some U.S. bonds and escaped north to cross the Grand

Canyon and make his way to Utah, where he thought he could escape all the detectives and police. On the way through the Canyon he managed to catch a “burro” or wild donkey, which had become almost tame again, and on this he rode up to the north rim where the snow lay deep. Finally he reached the little cabin at the V.T. Ranch and entered with his donkey. There was no one in the area, but when they had broken up the farmers had left behind a considerable supply of potatoes.

After spending a few days at the site, he received an unexpected visit. Another adventurer had come from Utah and appeared on the farm of cougar hunter Uncle Jim, located a considerable distance north out of the V.T. Ranch. There he had declared his intention to continue south across the Grand Canyon to seek better earnings in Arizona. Uncle Jim had warned him that the snow was deep all the way to the north rim of the Canyon. But the man had assured him that he was used to forest, moorland and snow and would probably know his way around here too.

So he broke off and waded through the snow towards the south. At night he had no protection and was close to freezing. Exhausted, he finally reached the V.T. Ranch and saw smoke rising from the cabin’s chimney. He went to the door and knocked. It was opened ajar by the thief, who held his ax at full swing and declared that he would kill the newcomer if he did not leave — “for here is food for one man but not for two.”

The newcomer begged and begged to be admitted, as he was completely broken by the cold, had several toes frozen, could not take another step and needed to rest in the warm cabin. The thief remained undeterred, no one was allowed to cross the threshold, and again he raised the ax menacingly. Then the newcomer’s temper flew. He drew his knife, pried open the door and hissed: “Good, then at least it will be a battle to the death.”

Now the thief backed off and became manageable. However, it was hanging on a hair’s breadth that they flew together with their murder weapons. For some time they lived on a war footing. They suspected and feared each other, they watched and glanced at each other furtively and neither dared turn their back on the other. At night, one had his ax, the other his knife at hand. The snow fell day and night and drifts grew around the cottage. When they realized that they could not get out of the spot

as long as the snow lasted and that their wait, as the turn of the year had not yet arrived, could be long, and that they could need each other and help each other, they made peace and put away the ax and the knife.

After the potato supply ran out, they slaughtered the donkey and now had meat for a long time to come. It was in the middle of December 1921 that they had met in the cabin and had to stay there for four months. The snowfall increased and the drifts were twelve feet deep.

In March, the newcomers made two pairs of skis and then they broke up north onto the snow, taking the last bits of meat with them. The newcomer, who since he had frozen his feet and lost his toes was in bad shape, could not manage on his skis without the help of the thief. They therefore went slowly through the incredible drifts, and soon only a small piece of meat was left. Once, when they kicked away the loose snow and lay down to sleep, the thief took the opportunity, after his comrade had fallen asleep, to make off with the piece of meat and the pieces of tarpaulin they found in the cabin. He took it for granted that his comrade would perish in solitude.

The very next day he reached Uncle Jim's farm and concocted a story that seemed plausible. But in doing so he committed an occasional indiscretion, which led Uncle Jim and his men to suspect that things were not right and that a man was missing.

In the evening the abandoned comrade suddenly entered, and when he saw the thief, who had so treacherously left him in the lurch, he drew the knife, threw himself upon him, and would have killed him if those present had not prevented his intention.

During the night, the two men were kept in separate rooms and guarded. In the morning the thief wanted to continue through the snow to the town of Hurricane and was not deterred by the others, who warned him of the seventy-five mile route and advised him to go instead to Fredonia, which was only 14 miles away. So he broke through the snow on the way to Hurricane, but never got there. And though over a year had passed since then, no one had heard a sound of him. Presumably he had perished in the cold and then been eaten by coyotes.

The other was taken to the hospital in St. George in the southwest corner of Utah, which was the nearest place where proper help could be obtained. His feet had to be amputated and he was then cared for by kind people.

So we sat and talked by the crackling fire and watched the whirling dance of the sparks against a moonlit sky. We made up the plan for an excursion, which had Cape Royal as the destination and would require a couple of days. At 11 o'clock in the evening, when I took possession of my pleasant tent, the temperature was 21.1° C and after the heat of the day the air felt cool.

The whole of the following day, the last of the month of June, I devoted to sketches and hasty watercolors, a couple of which are reproduced here. One shows the temples of Deva and Brahma and a glimpse of Zoroaster, but Obi Point, from which their plinth ridge emanates, is obscured by the trees. The other shows the view to the north and north-northeast over the small valley and, in the background, part of Bright Angel Canyon's innermost regions. The whole landscape changes here in green and red. The green, which is vegetation, dominates the heights, the red gains ground towards the depths. The Kaibab Limestone forms vertical dikes varying in violet. It is a colorful and strange landscape, which seems highly improbable.

The following morning I was awakened by the hum of cars and voices and it was unusually busy at Wylie Way Camp. In one car were tourists, who went out on the headland and admired the view before returning the way they came. The passengers of the other car were three gentlemen, among them an elderly fellow, full of merry banter and joviality. Without further preparation, he threw himself headlong into the issue of the impending presidential election, feeling convinced that Ford would be crowned by the people. He was willing to give him his vote if Ford gave him a car in exchange. "Some people use such methods in presidential elections," he said, "but maybe Ford isn't of that kind."

With young Robert McKee, I hiked through the woods to the northeast rim of The Transept, the deeply incised little side canyon that bounds our promontory and empties into Bright Angel Canyon, just a mile away. From the edge, we hurried down

through a steep stone chute between a couple of limestone cliffs and continued, balancing carefully on a very narrow strip with the abyss to the right and the rock wall to the left. Fortunately, this dizzying path over the precipice was not long and before I knew it we were at the entrance to a cave where the “cliffdwellers” lived. We walked into the cool twilight. The ground rose quite steeply up to the innermost and highest part of the cave, which was closed off from the outside by means of a wall of stone, pieces of wood and mortar. It looked as if the outer room had been the actual residence, the inner perhaps a storage room. When young McKee some time ago discovered this place of residence, he had found fragments of clay vessels, which he collected together.²⁵ You could still clearly see where the fireplace had been, and judging by the traces, it cannot have been very long since the cave was inhabited. From the plateau I drew a sketch of the spur which bounds The Transept on the south, and whose inner, highest part is called Oza Butte, while the outer, a cone-shaped hill, bears the name of McClellan Point. Between the spur and the cave gapes the dizzying abyss.

During the course of the day, white clouds sailed over Arizona. They could be the first harbingers of the rainy season, although precipitation usually does not begin until around July 20. It comes in one or two violent bursts each day. The air is cooled by this and the rain is welcome, not least for the cattle that graze in the dry forests. All dug cisterns are then filled with water and for a longer time one does not have to worry about the decimation of the herds through thirst.

At Wylie Way Camp there was no need to complain about the heat. By midnight the temperature had dropped to 19.2° C. But the height above sea level is also more significant than on the southern edge. Wylie Way Camp is located at 8,250 feet (2,515 meters) elevation.

²⁵ Incidentally, young Robert McKee himself wrote of his discovery of the archaeological site. See the Editor’s Note on the following page. See pp. 146 and 147 below for Hedin’s pencil sketches of the scene as viewed from the “cliff dwellers” site.

Editor's Note

In 1921, Robert Wylie McKee, then 11 years of age, wrote of his recent discovery of the "cliff dwellers" site near Wylie Way Camp. This essay was submitted to *St. Nicholas*, a popular young-readers' magazine of the day. He was awarded a Silver Badge (2nd prize) for the essay, which won him a place in the magazine's "St. Nicholas League." It was printed in the July 1921 issue (Volume 48, no. 9, p. 856) and is transcribed here in its entirety.

At our camp at the Grand Cañon of the Colorado, we had not had nearly enough water; and as our spring was drying up quite fast, we knew we must either give up the camp or find more water. Our spring was down the cañon a way, so that we had to pack the water upon a burro and this made it very hard to get.

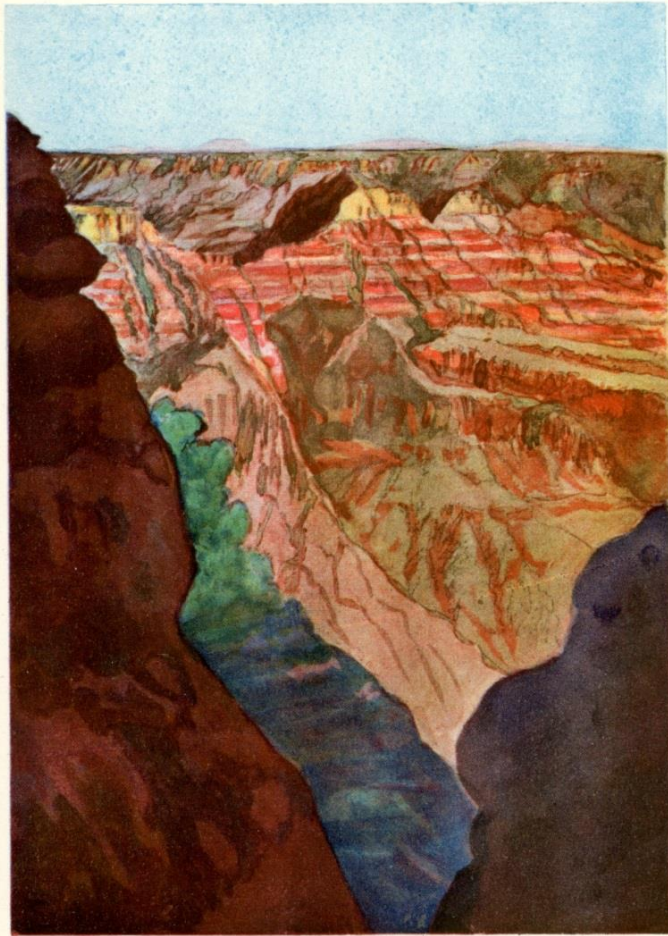
One day, as my father and I were walking along a side cañon, I said, "Stop a minute—I think I hear water flowing." My father thought that it was only the wind, but I finally convinced him that it was water. The next day we tried to get down to where I heard the noise, but failed. The day after that we had better luck, but got into such a jungle of thorny plants and trees that we could hardly get through. At last we came upon a beautiful clear stream issuing from a hole in the rock.

We went up out of the cañon a different way, and ran into a cliff-dwelling, in which we found many relics, including a skull, a stone hatchet, and lots of pottery. We found pottery at the spring, which showed that the cliff-dwellers had used that spring many hundreds of years ago.

On the way up, we found a very easy way to the top of the cañon, which the cliff dwellers probably used.

The cliff-dwelling was hidden, so that people could not find it, and they paid me money to guide them to it.

This incident brought three happy things, namely, a dependable supply of water, an interesting cliff-dwelling, and a way of earning money.



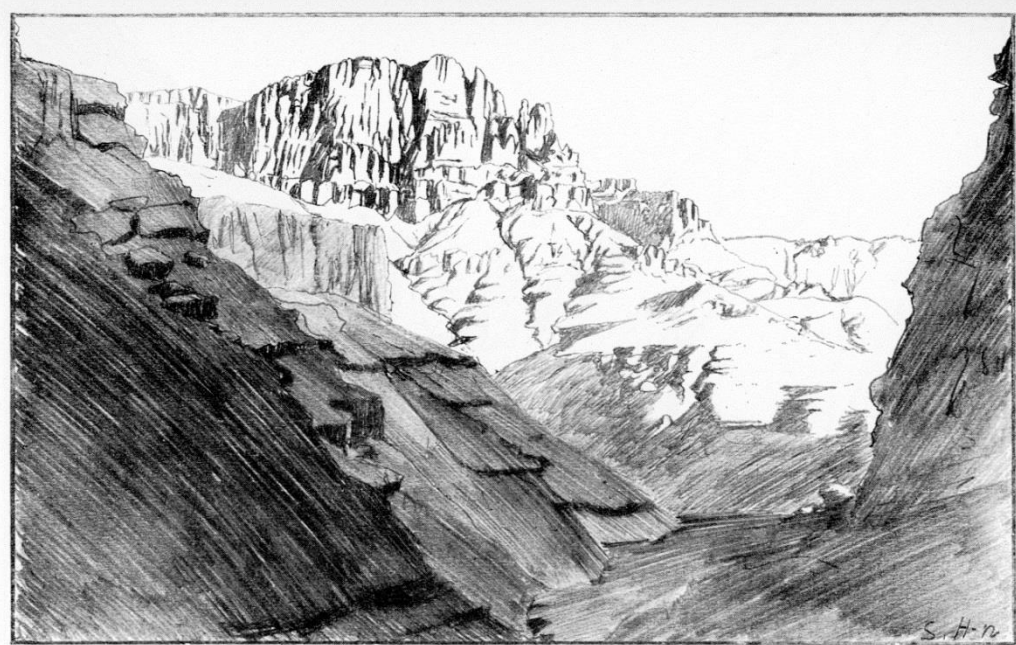
Deva, Brahma och Zoroaster templen från Bright Angel Point.

Deva, Brahma and Zoroaster temples from
Bright Angel Point.
(facing p. 224 in the original edition)



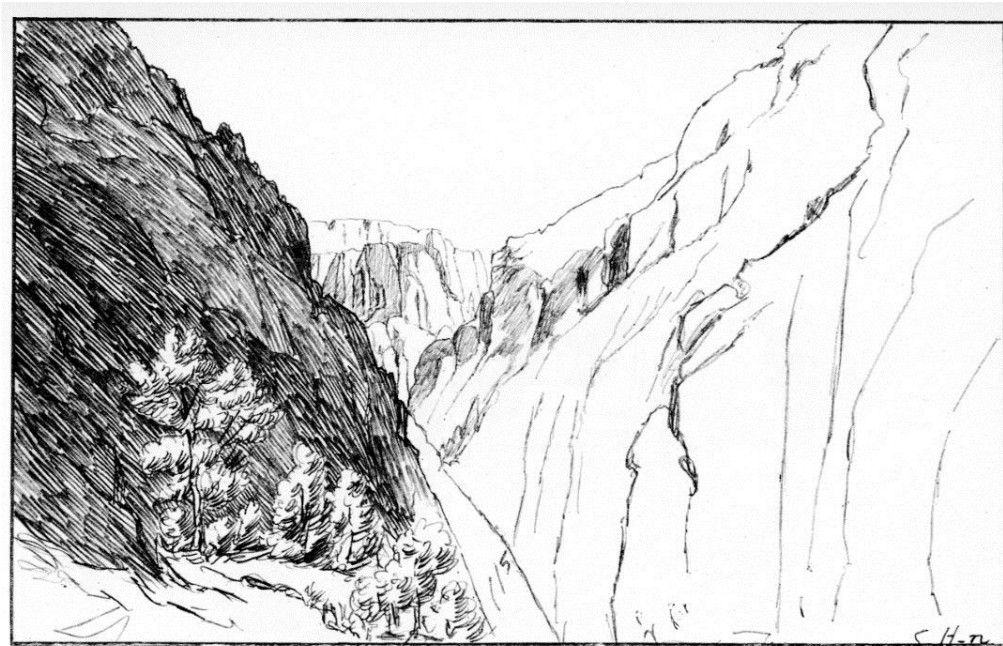
Altar Falls.

Altar Falls.
(p. 225 in the original edition)



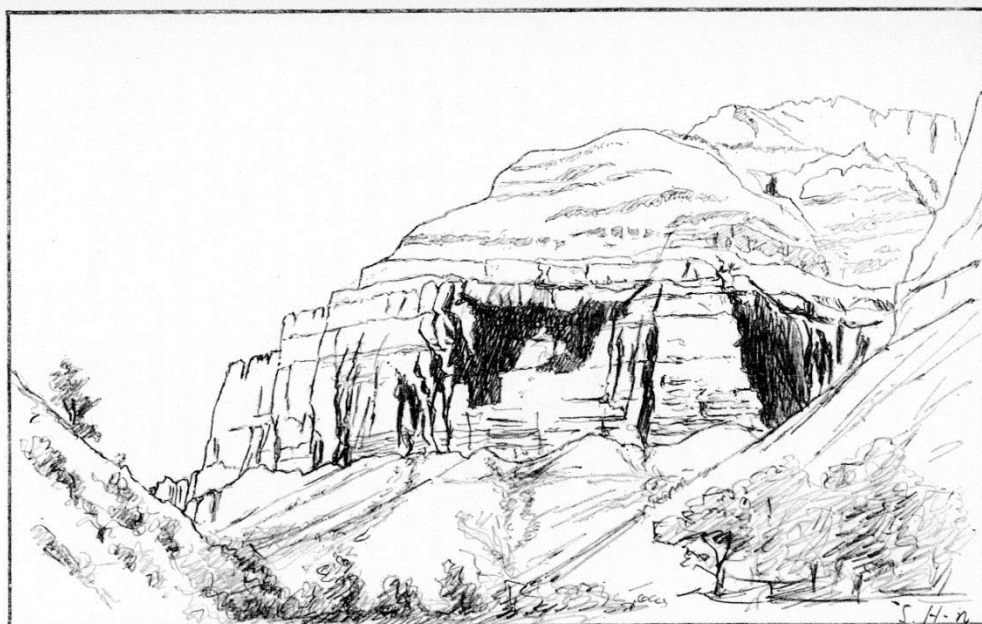
Utsikt mot S 30° O från lägerplatsen vid Altar falls.

View towards S 30° from the campsite at Altar falls.
(p. 229 in the original edition)



Utsikt mot S 15° O från en punkt i Bright Angel Canyon. (29 juni.)

View towards S 15° E from a point in Bright Angel Canyon. (June 29.)
(p. 231 in the original edition)



Bright Angel Canyon. Klipparti i sydväst från rastpunkt kl. 10,30 den 29 juni.

Bright Angel Canyon. Cliff section in the southwest from the rest point at
10:30 on 29 June.

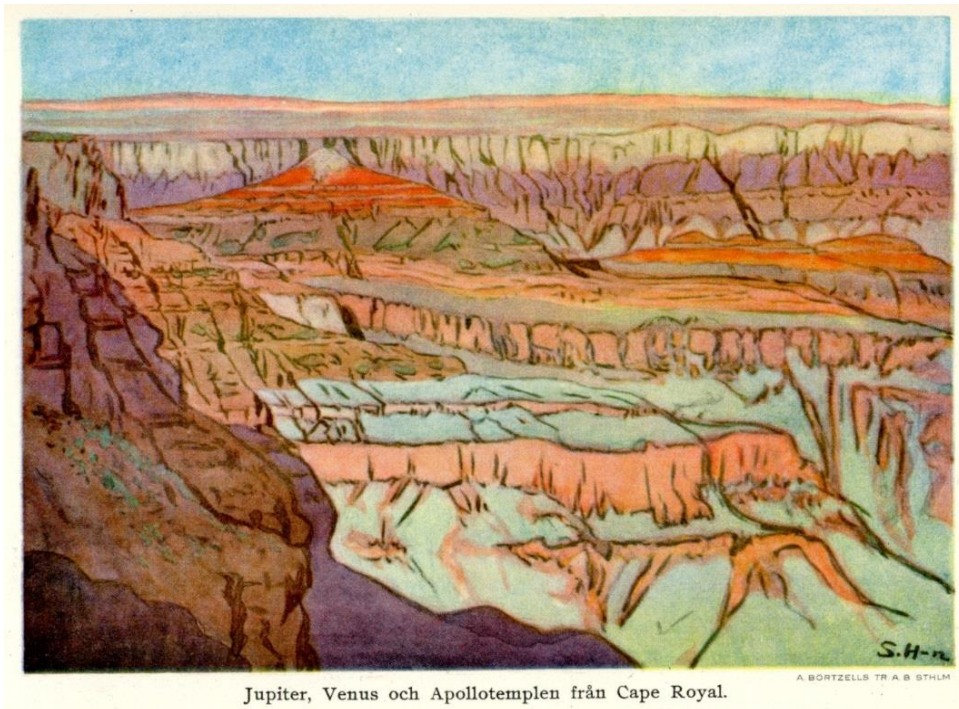
(p. 233 in the original edition)



Bright Angel Canyon. Klipparti i nordväst från rastpunkt kl. 10,30 den 29 juni.

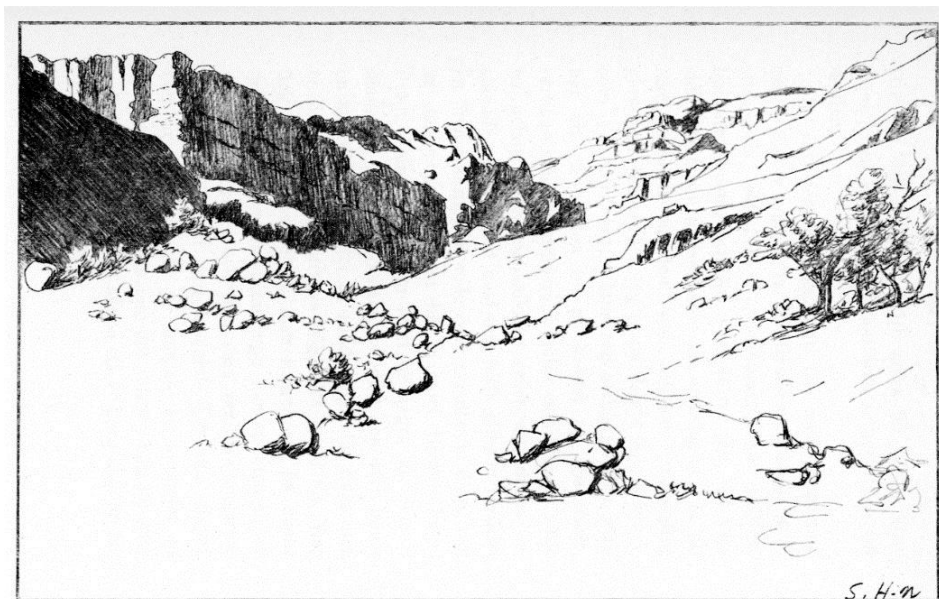
Bright Angel Canyon. Cliff section in the northwest from the rest point at 10:30
on 29 June.

(p. 237 in the original edition)



Jupiter, Venus och Apollotemplen från Cape Royal.

Jupiter, Venus and Apollo temples from Cape Royal.
(facing p. 240 in the original edition)



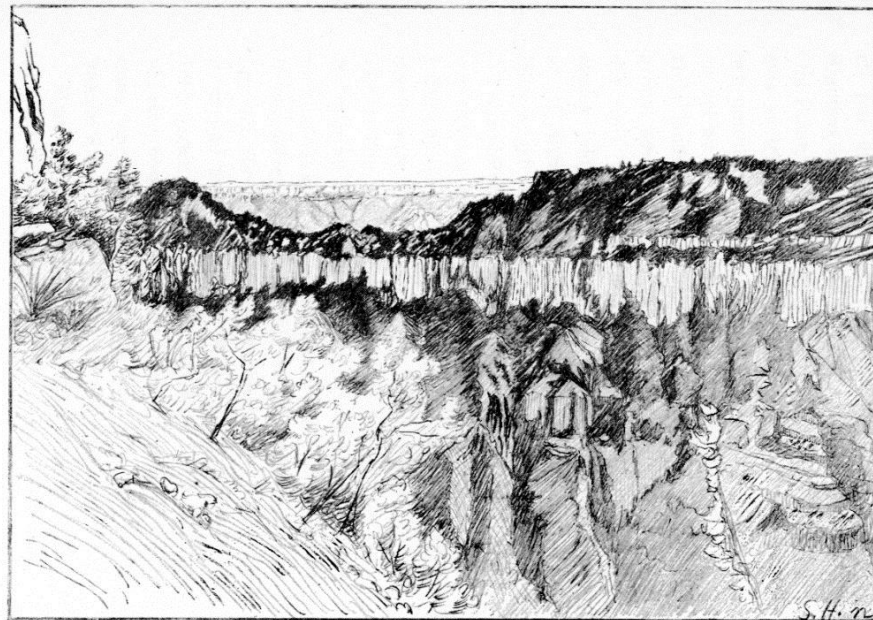
På väg till norra randen från övre delen av Bright Angel Canyon. Utsikt mot N 25° O från en rastpunkt den 29 juni.

On the way to the north rim from the upper part of Bright Angel Canyon.
 View towards N 25° E from a rest point on 29 June.
(p. 243 in the original edition)



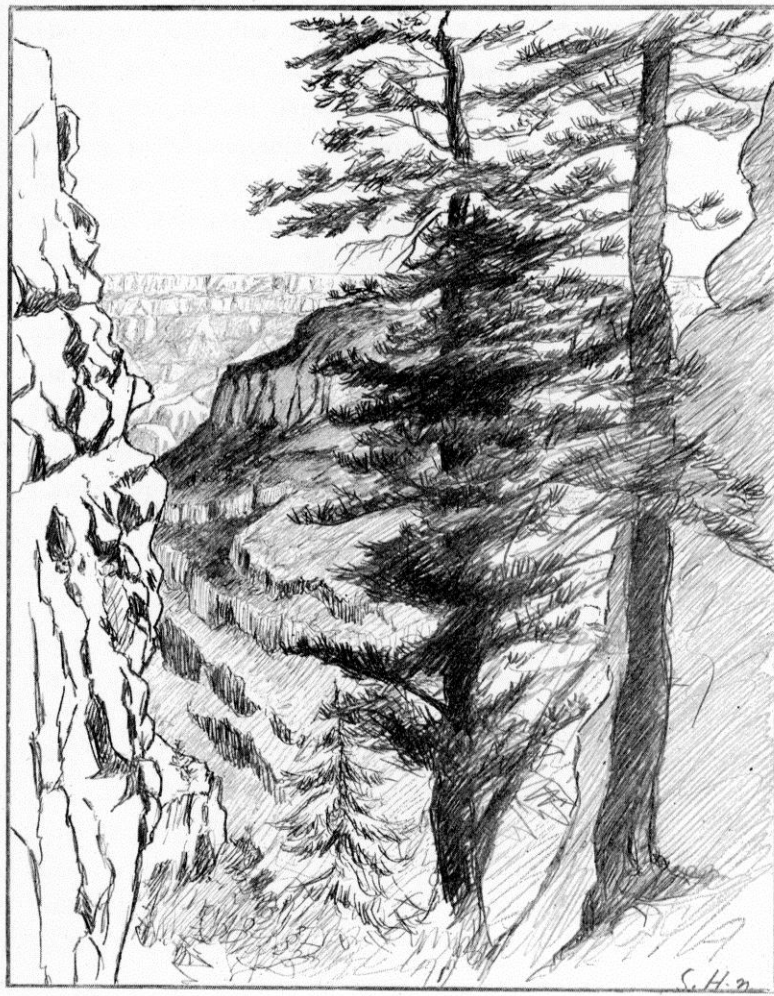
En framskjutande klippvägg nära Cape Royal.

A projecting rock wall near Cape Royal.
(facing p. 256 in the original edition)
 [This is of course Angel's Window. —Ed.]



Utsikt mot söder från Cliff Dwellers' grotta (1 juli). Den skogbevuxna ansvällningen till vänster: McClellan Point.

View to the south from Cliff Dwellers' cave (July 1). The wooded swell
 to the left: McClellan Point.
(p. 259 in the original edition)



Mot sydsydost från Cliff Dwellers' grotta (1 juli).

To the south-southeast from the Cliff Dwellers' cave (July 1).
(p. 263 in the original edition)

EXCURSION TO CAPE ROYAL.

July 2 was a lovely day, and when we broke up at 11:30 there was not a cloud in the sky and the degree number was only 25. It was now a matter of bypassing the upper part of Bright Angel Canyon and then crossing the entire Valhalla Plateau, which forms the southeastern block of the Kaibab Plateau; a narrow neck still connects them. We thus had to go north, east, southeast, and south to reach our goal, Cape Royal, the southernmost point on the Valhalla Plateau, northwest of Navaho Point (Desert View).

At first we went by car and a little beyond Jensen's station, in the area of Fuller Divide and Fuller Canyon, we continued with Jensen's "tallihoe" [tally-ho], a tall wooden wagon with large wheels and pulled by two magnificent mules. Coachman Ernest Apling and a cowboy, Fuller, maneuvered this adventurous team. Both were breakers of wild horses and belonged to that healthy class of outdoorsmen whose whole life consists in tumbling about in desolate woods and wilderness. Now I, too, would get some deep breaths of sea air and some new views of the Grand Canyon.

It went well at first, but we hadn't gotten far in our 14 miles before we had to plummet headlong down a nasty hill into Neal Canyon. It was dirt and sand and limestone, deep ruts, horrible bumps and sharp bends. You tossed here and there, brushed against tree trunks, thought you would get stuck in narrow passages, and admired the mules, who had to use all their strength to prevent the heavy, tall wagon from rolling down under its weight. And yet Ernest braked as hard as he could. But as it was, we happily descended into a depression and drove on through the beautiful forest to Neal Horse Pasture and its meadow land. Many trees, infested by some insect, were dead or dying. Once we were stopped by a mighty coniferous tree, which had fallen and lay across the road. We then made a detour, during which several saplings were bent between the wheels. A wonderful atmosphere prevails in this

desolate forest, which defies man's desire for destruction, but which may once again lower its crowns when the railway from the north is built down to the north rim of the Grand Canyon. The road we drove was not old. It was established in 1922 by a gentleman named Boman. And why? Well, the president of the Union Pacific Railway Co., Mr. Adams, then visited the Wylie Way Camp and made an excursion to Cape Royal to investigate what could be done along the lines of El Tovar. His plan was probably to build a railroad line out to the north rim of the Grand Canyon and near Cape Royal erect a hotel, which would attract the tourist stream and compete with the Santa Fé. And he was not willing to ride. Therefore, a road had to be laid hastily and it was made accordingly. Now we also benefited from that and could without further ado take provisions, water and beds with us for this unforgettably successful outing.

We are up on the top of the narrow neck or promontory in the sea of air that joins the Valhalla Plateau to the land north of it. A magnificent view opens to the east over the part of the Grand Canyon where the Colorado River flows from north to south through Marble Canyon. On its other side, The Painted Desert's flat terrain spreads endlessly and there we also find The Navaho Reservation.

One is completely surprised that in the middle of this wild forest of spruce, pine and the occasional aspen one is stopped by a fenced yard with a closed gate. It is there to prevent horses from escaping.

A little further on we reach Greenland Lake, a small lake in the forest, surrounded by a fence. A cabin has been built there, in which salt is kept for the horses. Salt is also put out in the open for the deer. A deer stands there and watches us curiously before disappearing like a shot between the trees.

At Broad Hollow we are close to "the rim" and rest in the shade to enjoy the view of the Grand Canyon and, to the north-northwest, Point Harris, which is the highest point on the entire rim. And again our attention is captivated by the Painted Desert's delicate, sunshine-saturated tones. Mr. McKee, who has seen these incomparable sights many times before, can never get enough of them, he says that they are almost

constantly changing in new colors, that each time one discovers new details and loves them more and more each time.

At 2:30 my thermometer shows 29.4°. North of Point Harris, 85 buffalo are kept protected in a valley. In the wasteland to the west live a thousand wild horses, feral since the Spanish era. They are very shy and can only be caught with the help of large corrals or enclosures, into which they are chased and then imprisoned with a lasso. Mr. McKee tells us that they are not difficult to tame and that, if treated well, they become very affectionate and docile. They seem almost grateful to be cared for and do whatever work is asked of them.

After five hours of riding we arrived at our destination, a spring about a kilometer away from Cape Royal. Here we camped very close to the edge, let the mules loose with bells around their necks so that they were always within earshot, and made a lovely fire. While I wandered around nearby, the others cooked dinner and made ready our simple open-air beds — the tent brought was despised, one sleeps better under the open sky.

For three hours I sat and painted on a headland. The play of colors was now different from what I had seen from the south. The sun illuminated the left or east bank of the Colorado, and the rock faces and higher elevations down toward the river shifted in gray-yellow, violet, purple, brick-red, ruby-red, and violet again, all in light, discreet, dream-like tones, not brilliantly shining as from the southern edge. Here, too, the landscape is absolutely astonishing in its beauty and its infinite grandeur, and the image I have sought to create gives only a fleeting idea of reality. After the sun has set, the pure colors fade away, vertical rock walls and plunging slopes appear in dark violet and diffuse tones, the details melt together, everything lies in shadow, and the light violet night rises above the desert horizon.

When I came to the camp among tall pines, the fire was burning bright and close, and by its glow we ate dinner and drank tea. At eleven o'clock, when the moon rose, we sat and talked, and again I saw in my breath a whole carnival of cougars, plunging from the trees onto the backs of wild horses and tearing open their necks with their fangs — bobcats, wildcats, and deer, coyotes, rattlesnakes, tarantulas and scorpions.

Ernest had an inexhaustible supply of hunting stories. But in the end we had enough of that and crawled into our beds. I lay awake for a long time and watched the fire die down and the moon slide between the crowns of the conifers. The only thing that disturbed the silence was the whistling of the southwest wind in the trees and the bells of the mules.

After an early breakfast on July 3, we went to the nearest headland and rolled some loose limestone blocks down the slopes. It was boyish and unnecessary, but very funny. A couple of spinning somersaults over the edge, a fall straight down the cliff face, impact on the next sloping ledge and a roar from the depths afterward as if distant thunder. The cougars in their dens down there in inaccessible crevices were probably wondering what had happened.

Then we went out on the long narrow promontory, which, pointing like a finger to the south, at its extreme point is called Cape Royal, certainly one of the most famous and magnificent points of the Grand Canyon. To get there, one has to cross a fairly deep depression, a trench, which is about to turn Cape Royal's mighty column into a secluded island off the Valhalla Plateau. Between sparse trees and bushes, among gravel and grass, one goes steeply downhill for several hundred feet, and then, in the deepest part of the channel, climbs just as steeply up to the crest of this small island-like plateau, overgrown with hard, troublesome bushes and nut-pines. About halfway, or after thirty minutes of hiking, we stopped for a while at the base of a most peculiar spur jutting out from the rim towards the north-northeast. It formed a very thin limestone screen, cut off vertically at its northern end and provided in its upper part with a rectangular window [Angel's Window]. In the slope below this grew sparse conifers of the beautiful pyramidal shape of the fir. The wall had such a regular shape that one could believe it was built by human hands. But it was too big, its dimensions unheard of. It was a question of going out on its crest, but I defiantly opposed Mr. McKee's temptations to do that. For at one place near the root the flat surface of this causeway was little more than a meter wide, and there was a vertical depth of 700 and 800 feet on either side. If you are not absolutely sure of yourself, it is wise to refrain from such a walk.

At the extreme point of Cape Royal we settled ourselves as comfortably as possible and stayed there most of the day. Here, too, one falls prey to an oppressive feeling before the magnificent beauty of the landscape and one admits without hesitation one's inability and one's powerlessness in the face of the task of trying to reproduce in pictures these astonishing perspectives, these variegated changing colors and this grandiose architecture.

To the west, as far as Havasupai Point and still farther, the Canyon is sunlit, but the high wall of the southern rim is in discreet shadow. El Tovar is easily recognized by a column of smoke rising from some locomotive. You can roughly locate Desert View and in the east you have again in extremely strong foreshortening The Painted Desert, where the famous play of colors is indeed enchanting, but hardly as remarkable as rumor has it. In the distance, everything dissolves into mist.

I take out the pad and begin with a sketch of the view to the west, where the temples of Zoroaster and Brahma dominate, and where to the left of them one perceives the deep great furrow of the Colorado River, while the rocky promontory on the right in the foreground is our nearest neighbor among the capes projecting to the south of the Valhalla Plateau. How different the temples look from here, seen from the side! But, I repeat it, they offer a more beautiful sight both in lines and colors when you see them in evening lighting from El Tovar.

Of rare beauty and imposing might is also the isolated massive island called Wotan's Throne. Its Kaibab, Coconino, and Supai layers follow each other in vertical ramparts and steep ledges, and in light tones beyond the huge block the wall of the southern rim is discerned. Wotan's Throne rises like a sarcophagus on its catafalque.

In S 15° 0 we see the Vishnu Temple and part of the ridge, the highest point of which it is. On the south side of the valley, the part of the border wall that is located in the area of Zuni Point and Papago Point, can be seen. Over the southern rim and at a distance of ten Swedish miles the San Francisco mountain raises its 12,750-foot-high (3,887 meters) arched crown.

The next sketch shows us the landscape to the east-southeast with the valley of Unkar Creek in the foreground and in the background a single bend of the Rio Colorado. The escarpments on the left are the last slopes from the temples of Apollo, Venus and Jupiter. And opposite, on the other side of the river is Navaho Point or Desert View, where I had spent the night in solitude.

At Cape Royal we were in a straight line only 8 miles from Wylie Way Camp and southeast of it, but the road we traveled was over 14 miles long. The huge curve it makes is caused primarily by Bright Angel Canyon and Clear Creek, which intervene in the form of a pair of deep, northeast-facing notches in the block of the Valhalla Plateau.

A full day at Cape Royal is one of the best memories you can bring home from the Grand Canyon. In the morning light one sees the wall of the Palisades in shadow, and the western regions, sharply illuminated and brightly prominent against the background world, are somewhat shrouded in mist due to the distance. Over the course of the hours, the shadows change their contours, the projections of the palisades are increasingly hit by the sun and their dark ridges shrink into ever narrower lines and finally disappear altogether. At the same time, the shadow fields under the southern rim grow. Most beautiful of all, however, is the afternoon illumination over the country to the east, less because of the relief and contours, than because of the colors. The shadows, which are otherwise always so important for the creation of an independent and strong relief, make themselves felt to a very small extent, because they lie at the back of the temples and because the sun's rays penetrate into the crevices of the palisades. Almost everything in sight in the east is sun-drenched and resplendent in bright variegated, fine, noble colors, in which red, violet, green, and yellow predominate.

My last image from Cape Royal is a lackluster attempt to give at least flimsy support to the imagination; because trying to give a concept of the Grand Canyon with words alone is, as I have emphasized several times, completely hopeless. On the far left we see the cape of Cape Final itself and the southern slopes of the Valhalla Plateau between the two famous capes. In the distance can be seen the temples of Jupiter, Venus and Apollo, and beyond them the wall of the Palisades. Over the crest of this

one catches, as usual with strong foreshortening, a glimpse of The Painted Desert. The foreground is dominated by the valley of Unkar Creek, bounded to the south by the Vishnu Temple.

In the foregoing I have already pointed out the great difference which prevails between the configuration and course of the southern and northern sides, and which consists in the fact that the southern is but little incised, while the northern has been attacked in the most fantastic manner by erosion. A series of side canyons of the same kind as Bright Angel Canyon have cut their erosional furrows deep into the northern plateau, and we have seen how, geologically speaking, in the very near future the Valhalla Plateau awaits its fate of being completely cut off and transformed into a detached block, which as a result of the erosion working from all sides in due time will assume the form of the present temples. State geologist N. H. Darton, in his previously cited book, has given a very simple explanation of the reasons for this disparity between the Grand Canyon's north and south rims. The former is more than 1,000 feet higher than the latter because the Kaibab Limestone gently slopes down to the south. As the river then cut its furrow through the strata, the northern ridge necessarily came to be higher than the southern. In the higher regions, rainfall is more abundant. The rain flows to the south and plunges down the slopes of the northern rim of the canyon and then joins the Colorado River. It is obvious that their erosive power must therefore be incomparably greater than in the south, where the rain streams have their sources just inside the rim and then flow south, away from the Canyon.

A short lunch break interrupted my work. Mr. McKee, while I was drawing, had boiled tea and laid out our lunch-sack under a gnarled pine on the outermost headland, and in its shade we took our meal. Then I continued and did not stop until sunset. And when the day was over, and the red splendor was extinguished, and the colors faded away, we made a hasty retreat to our camp under the pines, to the crackling fire, to evening supper and rattling stories of rattlesnakes and other unpleasant animals, and finally to our outdoor beds.

On July 4, we got up on time, but it took hours before the mules, which had escaped during the night, were found. Only at noon did we get started. The temperature was

then 23.1° C and the weather most beautiful after a windy night. McKee had gone ahead and was to be picked up at an agreed point. The cowboy, Fuller, stayed in the area to capture some of Jen's horses.

We were at first to make our way to the neighborhood of Cape Final, and in this direction there was no sign of a road. Ernest drove sitting on the front crossbar, I on the rear. The ground was levellest right on the edge, a few feet from the abyss. You had the gaping depth directly below you on your right hand. I was on high alert in order to be able to throw myself out in the event of a disaster. It felt calm once Ernest steered the mules away from the brink. But now we had to climb down a hideously steep hill into an erosion furrow, which directly crossed our way. The brake did not catch and the mules could not hold, no matter how hard the driver pulled the reins. They let out a bray, the cart gained speed, jumped and rolled over the unevenness of the ground. Cruising between the trees was anything but easy. And the best thing was that we drove straight into a young tree that stood in the way. I took it for granted that we were going to overturn and jumped off to avoid being anchored by broken bones in the wilderness. But the wagon stayed on an even keel and, with a mule on either side of the tree, we stood there.

After we got through we went on and fished up Mr. McKee. At a point not far from Cape Final, we rested to enjoy this view for a while, which is essentially reminiscent of the one from Cape Royal. A little further to the north we halted again, near Fair View, to give me an opportunity of drawing at least a fleeting picture of the enormous masses of rock, modeled in the most decorative manner by water, weather, and wind, which here plunge in wild, picturesque blocks down towards the depths. To the north-northwest Point Harris; to the north House Rock Valley can be seen at a great distance through a gap between the rocks, one of them called Saddle Mountain.

This moment was the last I spent in contemplation of a Grand Canyon landscape, for the day was drawing to a close and we would not make it home until dark. It was therefore difficult to break free. But it had to happen and I did it with a feeling that I had to come back one day. If it would have helped to throw a few coins into the deep like into the Trevi Fountain in Rome, I would have done it. But Rome is built by men, the Grand Canyon by God and there help no bribes.

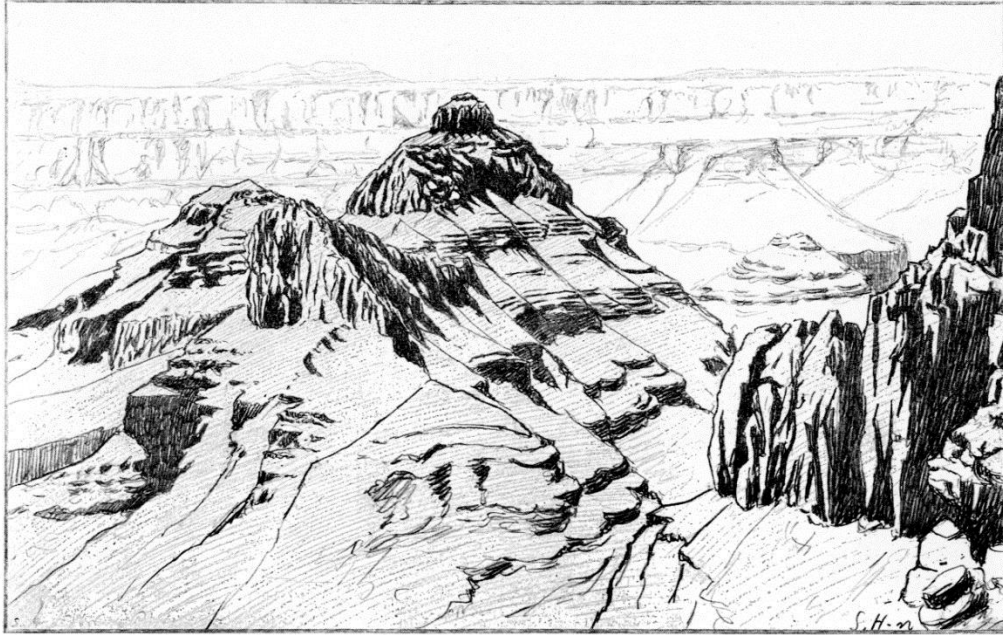
So I sought for the last time to impress upon my memory this wonderful world of greatness, solitude and silence. Of a land where no vegetation hides the nakedness of the rocks and where the rocks' own color therefore comes into its own, rather than subdued by shadows, rather than heightened in red tones by the sun. Of a landscape that you have in the depths below you, not among the clouds above you like the Himalayas and other mountain regions. Of the matrix or cast, which is made of the whole basin of the Grand Canyon, and which is large enough to contain a whole chain of mountains, 1 English mile in height, 10 miles wide, and 217 miles long, a chain of mountains which, during millions of years, has been pulverized, and now lies widespread in Colorado River alluvium and on the ocean floor.

When you leave the Grand Canyon, as I have already mentioned, it is difficult to decide to which side, the south or the north, you should give the prize of beauty. The only real thing, of course, is to visit both sides. But only a very small percentage of the tourist stream makes time for that. For those who only have a day or two to spare on their visit, there is no choice. He must stay in the south. And from the south he has the grand view of the temples seen in foreshortening and with the fiery glow of the evening blush over the western slopes. Of the depth and length of the valleys between them he gets no clear idea, and cannot get it without sacrificing a few more days and riding to the northern rim.

The most beautiful thing of the latter, which I was in a position to witness, was the play of colors in the east for an hour or so towards the afternoon. For these colors are close, but light and discreet, not intense or screaming; they seem like dream games, rose gardens, empires, young girls' sharp, violet or light green dresses in a ballroom, they seem like clouds illuminated by the morning blush and thanks to them this whole landscape seems so light and airy that it looks like it could be blown away by the first breeze. And yet there are heavy, hard masses of stone, on which nothing but time, water and weathering rule!

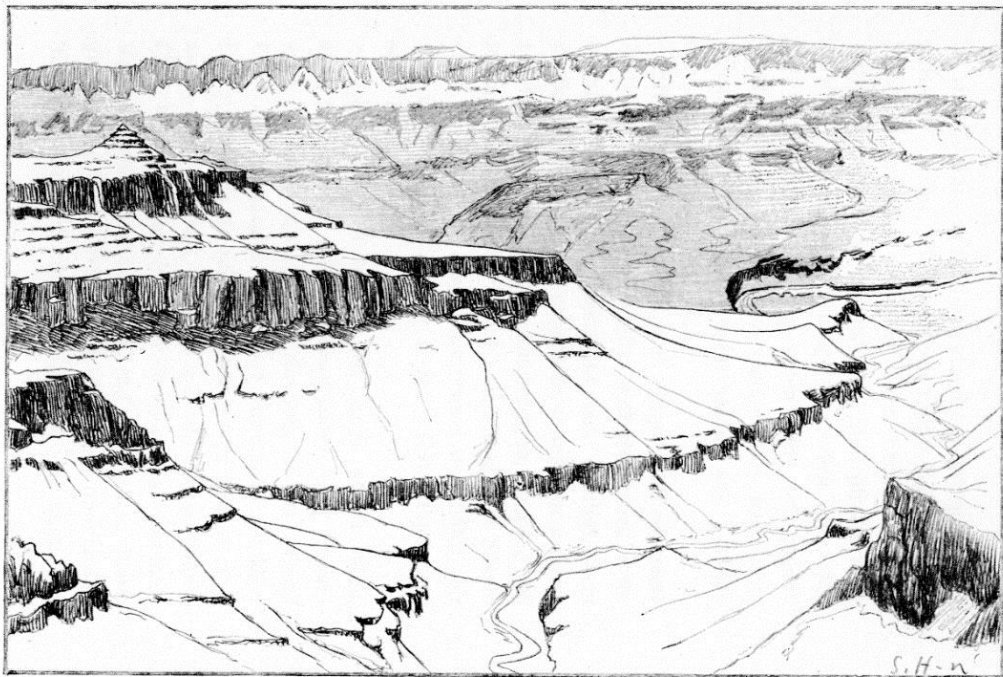
So we rolled on through the pathless forest and soon the last glimpses of the Grand Canyon had disappeared behind us. After a while we re-entered the wretched road we had already traveled two days before.

Dusk was already close by the time we were back at the car, and with the lights on we sped home to the tents through the slumbering forest of deer.



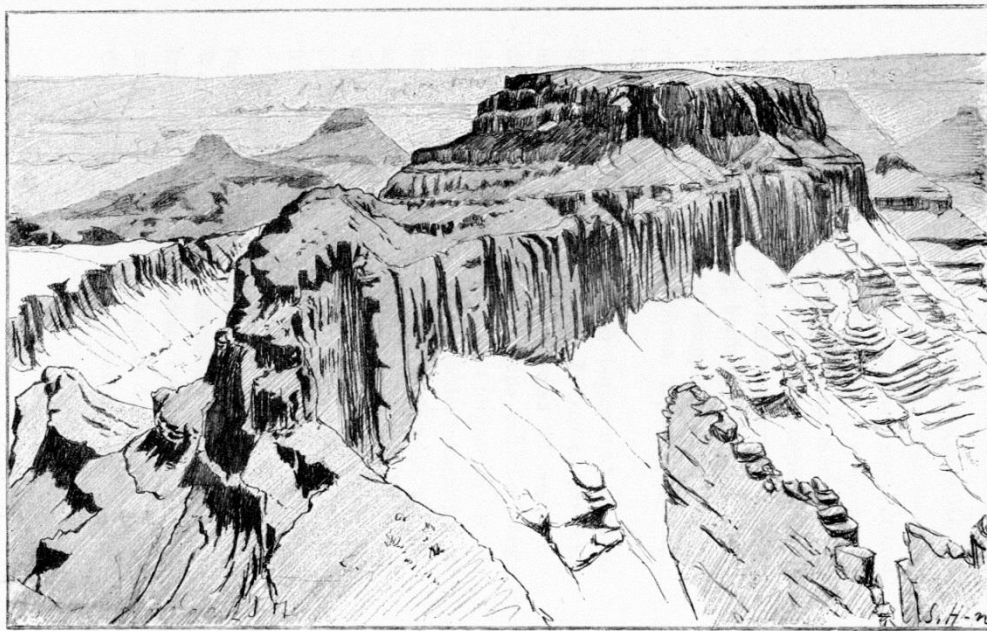
Mot S 15° O från Cape Royal.

Towards S 15° E from Cape Royal.
(p. 271 in the original edition)



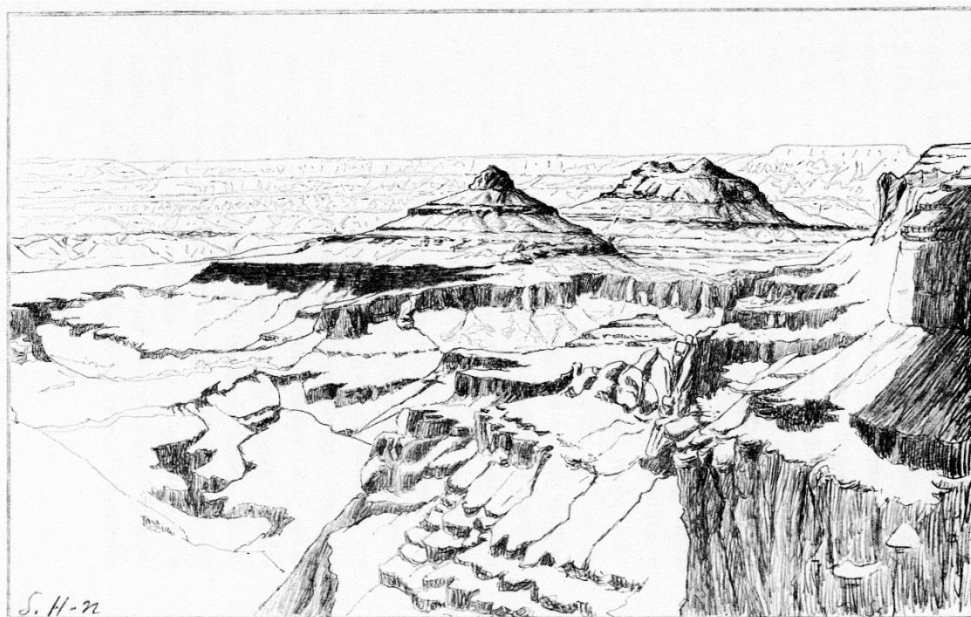
Grand Canyon från Cape Royal. I S 65° O synes en krök av Rio Colorado.

Grand Canyon from Cape Royal. In S 65° E a bend of the Rio Colorado is visible.
(p. 273 in the original edition)



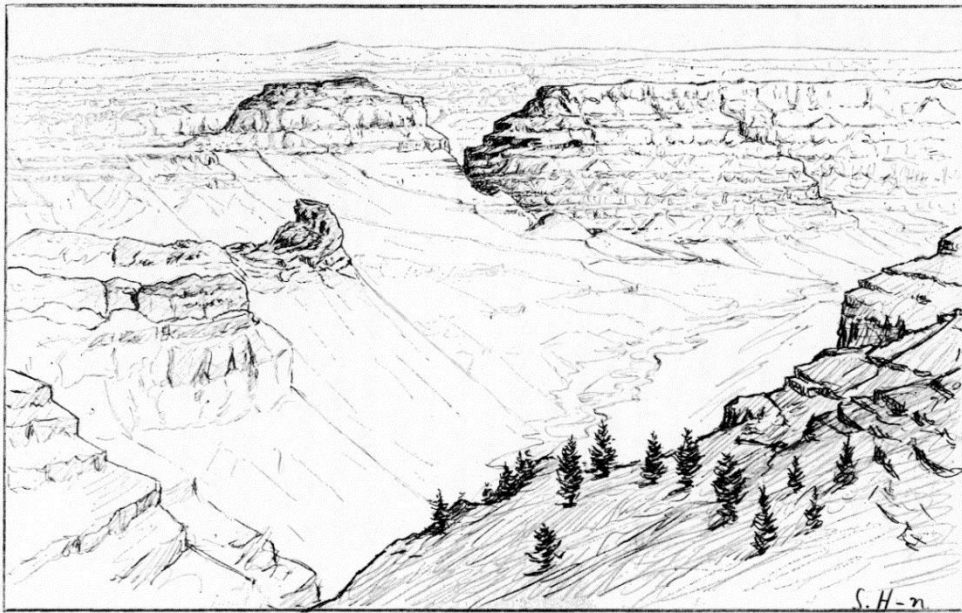
Wotan's Throne, S 20° V från Cape Royal.

Wotan's Throne, S 20° W of Cape Royal.
(p. 277 in the original edition)



Mot S 85° V från Cape Royal.

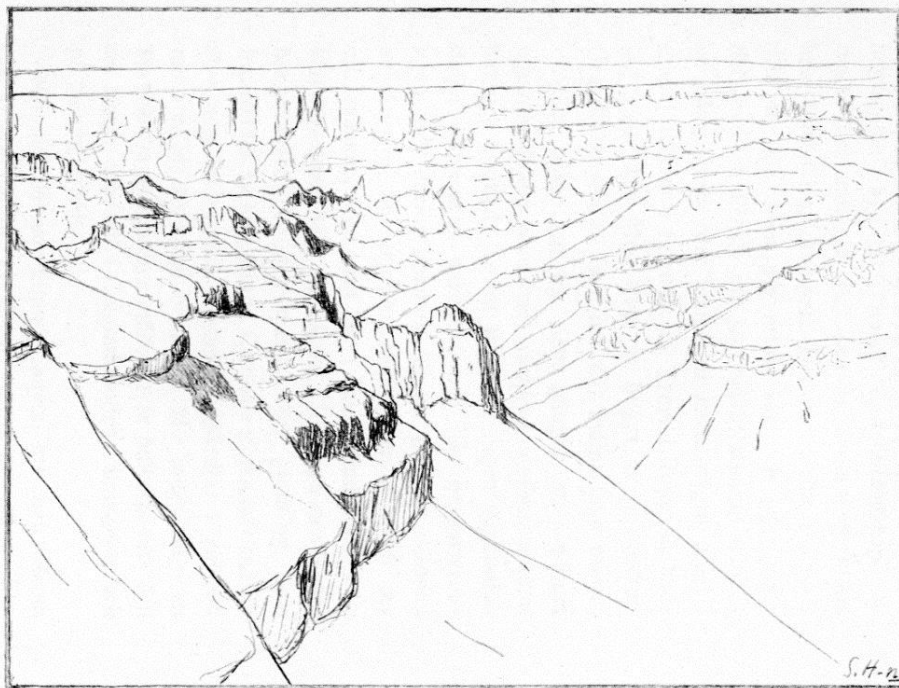
Towards S 85° W from Cape Royal.
(p. 281 in the original edition)



Utsikt från en punkt nära Cape Final. I mitten (N 74° O) Lilla Coloradoelodens mynning. Till vänster därom Chuar Butte och, längre bort, Siegfried Pyre. Till höger därom Cape Solitude och Temple Butte.

View from a point near Cape Final. In the center (N 74° E) the mouth of the Little Colorado River. To the left of that Chuar Butte and, further off, Siegfried Pyre. To the right of that Cape Solitude and Temple Butte.

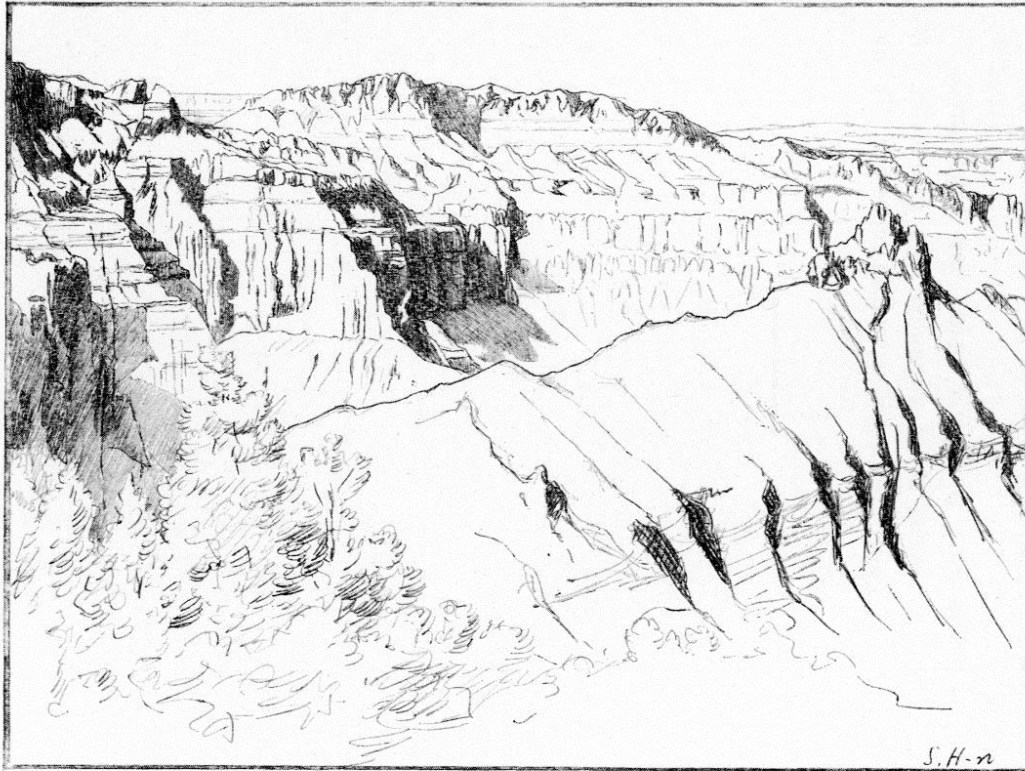
(p. 285 in the original edition)



Mot N 30° O från sista utsiktspunkten nära Fair Wiew.

Towards N 30° E from last vantage points near Fair Wiew [*sic*, Fair View].

(p. 289 in the original edition)



Från sista utsiktspunkten nära Fair View. I mitten Saddle Mountain. Genom inskärningen till vänster därom ans House Rock Valley (N 5° V). Längst till vänster Point Harris.

From last vantage points near Fair View. In the middle Saddle Mountain. Through the incision to the left of it House Rock Valley (N 5° W) can be seen.
Far left Point Harris.

(p. 292 in the original edition)

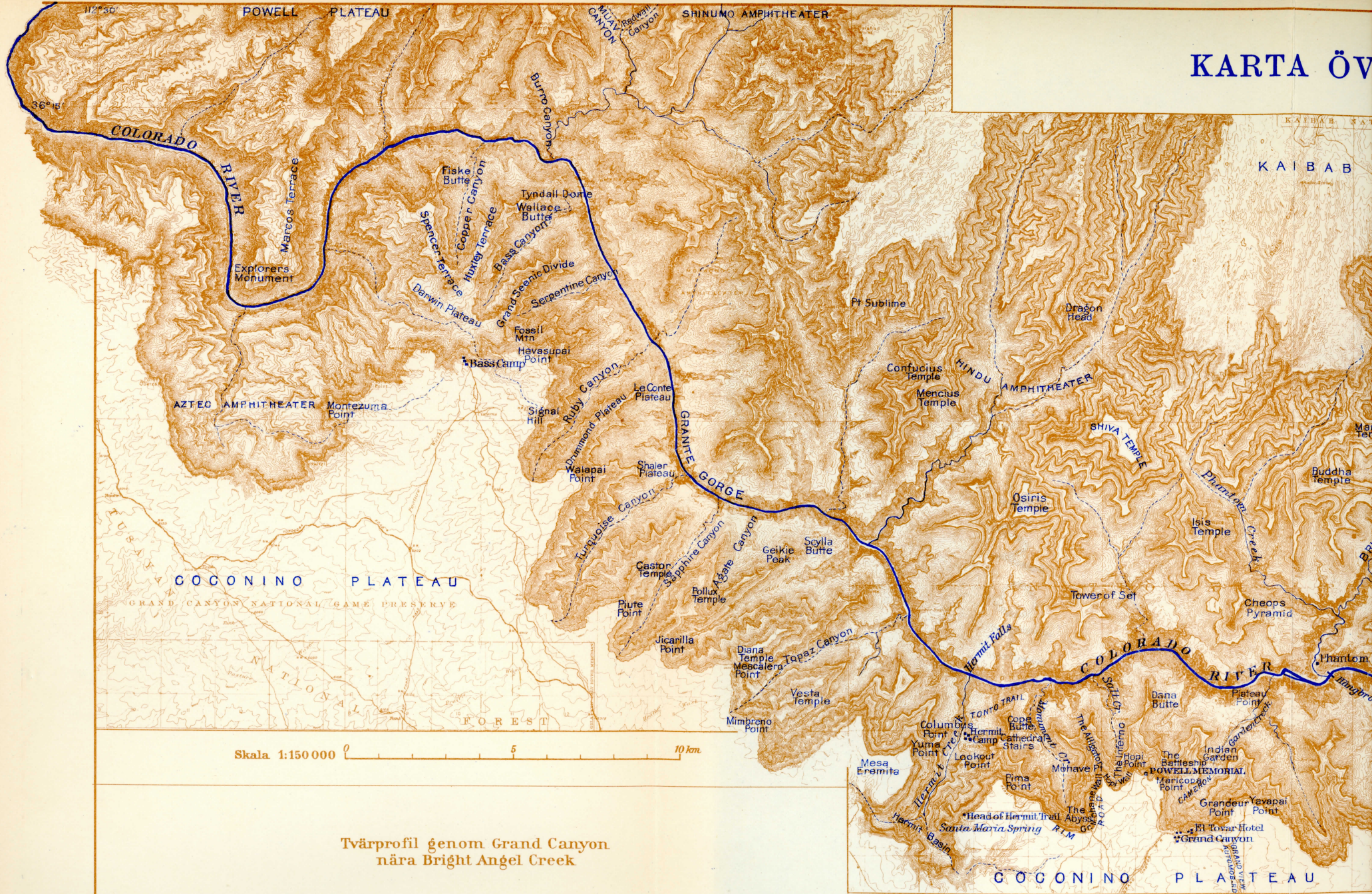
Map of the Grand Canyon in Arizona

Hedin's photolithographic map, which in the 1925 edition is an affixed fold-out at the end of the volume, is displayed here in two overlapping parts. The lithographer's credit reads "Generalist. Litogr. Anstalt Stockholm 1925." The base map, in brown ink, is composed of topographical sheets produced by the U.S. Geological Survey (not credited). A geological cross-section is included, with legend in Swedish. Overprinted in blue ink are the course of the Colorado River and numerous place names mentioned by Hedin.

The German editions of 1926/1927 include this map loose, held within a cloth strap. The title is in German, "Sonderkarte des Gran Cañon in Arizona" (Special Map of the Grand Canyon in Arizona), and the legend for the geological cross-section is also in German. The map is photolithographically reproduced from the 1925 Swedish edition, still noting the Swedish lithographer's credit with the addition of the German printer, "Druck von F. A. Brockhaus, Leipzig".

The Russian edition of 1928 has not been seen by the editor.

KARTA ÖV



	Feet
Carb. Kaibab Limestone	~ 700
Permian Coconino Sandstone	~ 300
Permian Supai Formation	~ 100
Permian Redwall Limestone	~ 550
Cambrian, Tonto Formation	~ 970
Precambrian, Granite & Gneiss	

Kaibab Limestone	(Carboniferous)
Coconino Sandstone	(Permian)
Supai Formation	(Permian)
Redwall Limestone	(Permian)
Tonto Formation, Cambrian	(Cambrian)
Grand Canyon Series (Chuar and Unkar Groups (Algonkian))	

KARTA ÖVER GRAND CANYON I ARIZONA





*To
the memory of my Mother —
who took me to the library*

(Jeannette L. Spamer at Powell Memorial, October 1984, by Earle Spamer. Her only visit to the Canyon.)

Sven Hedin paid close attention to air and water temperatures during his time at the Grand Canyon, noting temperatures between 7.8° and 45° C (the latter temperature was one taken in the sun). This conversion table to degrees Fahrenheit is provided for this temperature range.

°C	°F
45	113.0
44	111.2
43	109.4
42	107.6
41	105.8
40	104.0
39	102.2
38	100.4
37	98.6
36	96.8
35	95.0
34	93.2
33	91.4
32	89.6
31	87.8
30	86.0
29	84.2
28	82.4
27	80.6
26	78.8
25	77.0
24	75.2
23	73.4
22	71.6
21	69.8
20	68.0
19	66.2
18	64.4
17	62.6
16	60.8
15	59.0
14	57.2
13	55.4
12	53.6
11	51.8
10	50.0
9	48.2
8	46.4
7	44.6

