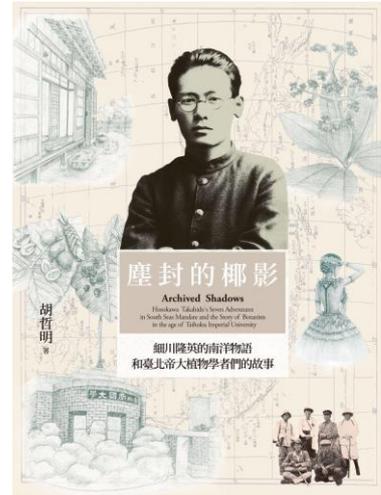


ARCHIVED SHADOWS: HOSOKAWA TAKAHIDE'S SEVEN ADVENTURES IN SOUTH SEAS MANDATE AND THE STORY OF BOTANISTS IN THE AGE OF TAIHOKU IMPERIAL UNIVERSITY

塵封的椰影：細川隆英的南洋物語和臺北帝大植物學者們的故事

This docufiction novel is inspired by the compelling, true-life story of a now little-known young botanist in prewar Taiwan who invests his expertise and energies on expanding our understanding of the plant sciences.

It was only in the 1930s that Taiwan's colonial education system, and its modern approach to scientific studies, produced the island's first crop of skilled and motivated botanical researchers. Between his 1932 graduation from Taihoku Imperial University in Taipei and his permanent relocation to Japan in 1946, Hosokawa Takahide (1909-1981) forged a fruitful career as a Taiwan-based botanist, leaving over 6,000 botanical specimens that are still conserved today in the National Taiwan University (NTU) Herbarium. However, despite his contemporary importance, he and his legacy have largely faded into obscurity. In *Archived Shadows*, author and botanist Hu Jer-Ming explores the scientific, historical, and sociological underpinnings of



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Hosokawa's work and specimen collection, weaving a compelling story of Imperial Japanese botany in the early-mid twentieth century.

After introducing Hosokawa's personal background, the story-like narrative follows the budding botanist through his friendships and studies while at Taihoku Imperial University as well as his subsequent research expeditions through Southeast Asia and atolls in the Western Pacific. Readers follow Hosokawa on his journeys to learn about iconic and interesting regional flora and discover the importance to native cultures of elephant-ear taro leaves, kava root, and many other plants. *Archived Shadows* brings stale scientific knowledge to life and a new, eye-opening familiarity to exotic plants.

The story woven here by widely read author Hu Jer-Ming is a botanical adventure in time that invites readers to see through Hosokawa's eyes tropical Pacific islands decades before the arrival of package tourism and modernity and to appreciate the moxie of field botanists willing to risk life and limb to sate scientific curiosity.

Hu Jer-Ming 胡哲明

Hu Jer-Ming earned his PhD in Plant Biology from University of California, Davis and is currently a professor at National Taiwan University's Institute of Ecology and Evolutionary Biology and Director of the NTU Herbarium. He specializes in plant taxonomy, the evolution of plant reproductive systems, phytogeography, and ethnobotany. *Archived Shadows* is Hu's first popular science book.

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By Hu Jer-Ming

Translated by Jim Weldon

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Author’s Preface

When the average person pictures a botanist, the image probably does not go beyond that of a person who likes spending time raising plants in a greenhouse, or has a passion for charging about the rainforests in search of rare species. Yet, for academics engaged in the basic research work of botany, understanding the typology of varied plant morphologies, why they grow in particular locales, how they adapt to their environment and the diversity of their outward forms are all, in and of themselves, questions rich in interest. Not so strongly drawn to agricultural development or to the exploitation of natural resources, they tend to shake their heads and sigh at unbridled land reclamation and tree-felling. Botanists of this latter type most often work in obscurity, yet they are frequently frontline observers of Nature, seeing from a perspective apart from the common run, with a more profound and intuitive perception of the principles governing human interactions with the environment.

Hosokawa Takahide, the man at the heart of this book, was just such a scholar, dedicating his life to the study of the taxonomy and ecology of plants. He spent the first half of his life in Taiwan and was a student in the second intake at Taihoku Imperial University, joining the faculty of the university after graduation and remaining there until after the end of the Second World War. His scholarly career may be said to span the rise and ultimate demise of his alma mater. He was afforded the opportunity to make numerous research and study trips to the South Seas, and was one of only a very few natural scientists to conduct long-term exploration and fieldwork in that region. Perhaps most readers’ ideas about the South Seas are somewhat superficial, and most are likely entirely unaware of the thousands of valuable botanical specimens from the South Seas housed in the collections at National Taiwan University. Beyond this, botanical research was quite active during the Taihoku Imperial University era, with a stream of research published by both faculty and students and quantities of specimens collected. Although this book centers on Hosokawa Takahide, it also tells the story of the diligent work of these Taiwanese botanists in the early part of the twentieth century.

The specimens in the herbarium were collected in the field by botanical taxonomists, carefully dried and pressed, and then labelled with information such as the date and location of acquisition. The impression most people have of herbariums is of yellowing pages of withered

brown leaves stacked in an endless array of cabinets, something only botanical taxonomists might be interested in looking through. Yet, aside from being specimens providing evidence awaiting research, they also have academic value in and of themselves. Much extended research in recent decades has used the information contained in specimen labels to reconstruct the temporal-spatial distributions of plants inferred in past times. The studies presented in this book similarly seek to use the information on these labels to reconstruct the itineraries of collection expeditions organized by earlier botanists. Because the research workers at the Taihoku Imperial University Herbarium produced large quantities of specimens and published research but little in the way of travel diaries or manuscripts, reconstructing their life stories and scholarly explorations has proven quite a challenge. Fortunately, the former National Digital Archives Program and current Taiwan Cultural Memory Bank hold many well-ordered resources and databases that allow for rapid searching. Using this vast storehouse of materials, it is possible to reconstruct and present the fieldwork careers of the herbarium's collectors. As regards putting into order the specimens collected by Hosokawa Takahide across Oceania, my student Cheng Yi-Ru spent a number of years examining and comparing them, material that then provided the basis for her completed master's thesis. It was only by drawing on such information that I was able to reconstruct the collection expeditions and interpersonal networks of the persons in this book.

However, when it came to actually writing, much time also had to be spent combing through and checking available documentation, to ascertain not just the relationships between the various people involved but also the social and academic conditions of the time; even down to what the weather was like. Some of the scholars, including Kudo Yushun, Masamune Genkei, and Hosokawa Takahide published collected memoirs after retirement or were described in retrospectives published at the time of their deaths, making it easier to get a glimpse of their lives. However, materials related to the lives of botanists and other persons linked to main figures such as Hosokawa are almost entirely absent, leaving me no choice but to follow up on a mishmash of tenuous clues and traces. I put a great deal of thought into how best to make this book hang together better and give it the strongest possible narrative, interpolating situations found in other materials or creating dialogues in the text and drawing on my own experience of fieldwork as I came to bring the book together as a literary whole. I was able to avail myself of the valuable suggestions of Lo Su-Mei in the Anthropology Department at National Taiwan University when writing accounts that touched on anthropological themes, saving me from falling into vagaries and error.

I benefitted from a number of domestic and international open-source platforms when assembling my reference materials, which made checking through materials quick and efficient. These included the Integrated Electronic Resource Database for Taiwan Studies, the Taiwan Rare Book Collections, the Taiwan Sotokufu Personnel Directory, the National Diet Library of Japan, the Japan Center for Asian Historical Records, Japan Search, and the University of the Ryukyus Library, among many others. During the years I spent writing this book, I also purchased many valuable reference works from online second-hand booksellers, which, together with the rich

holdings at the National Taiwan University Library, the TAI Herbarium Library and Institute of Modern History at Academia Sinica, proved of great assistance in completing my work.

I also had regular contact with Hosokawa Takahide's surviving family. His second daughter Kanako and her husband Nagano Hiroshi provided quite a large number of precious family photographs and numerous anecdotes, enabling me to tease out the threads of my story much more clearly. I would also send whatever new materials I came across to Hosokawa's family, and there were numerous unexpected discoveries. Among the most notable were Liu Chiu Elementary School's Principal Chang-Chien Chen-feng's finding biographical materials relating to Hosokawa's father, Hosokawa Takaaki and the discovery of Hosokawa Takahide's athletic records Taihoku High School's student magazine, the *Shofu*, which his family found very moving. During those years, Nagano Hiroshi, Kanako, and their daughter Minako would send cookies baked in their own store for me to share with my colleagues at the Herbarium; a genuinely heart-warming way for them to reciprocate. Lastly, I want to give special thanks to my father, Hu Ting-Ho, and mother, Hu-Wu Tsai-Yueh, who not only helped with a great deal of the translation from Japanese and in clearing up ambiguities but also shared many of their memories from childhood. Now both in their nineties, they are among the very few remaining elders able to provide first-hand accounts of the 1930s and 1940s, enabling me to get a genuine feel for the atmosphere in Showa-era Taiwan.

Although the horrors of war lay as a shadow over Taiwan in the 1940s, strictly speaking, the vast majority of ordinary Taiwanese had less direct experience of the shock of conflict than their peers in China, Southeast Asia, and the Pacific territories, as Taiwan was never invaded directly. Most of the damage done to Taiwan came from US bombing raids and the resulting fires and so forth. In writing this text, I think I have given my readers, particularly in the parts of the final two chapters describing the war and early post-war years, some taste of the brutalities of war, and the hopeless situation it put so many in. The book overall was written to address a variety of different themes, including botanical taxonomy, ethnobotany, history, and sociology, which was perhaps an over-ambitious goal. While creating a coherent whole has perhaps not been entirely possible, I hope that by making linkages across disciplines, my readers may gain insights wholly different from anything previously encountered.

Sumiko, Fiora, and Dores are three of the handful of fictional characters included in my narrative, although they are all based on actual people. I have added such characters to Hosokawa's story mainly to bring the situation of those times to the fore, to emphasize subthemes such as ethnobotany applications, or to describe books with scientific illustrations in ways that aren't overly dry or dull. Other fictitious elements were also included as needed to provide plausible back stories. For instance, the tale of Fiora's skirt adds a bit of romantic imagination to Hosokawa Takahide's actual presentation of a grass skirt to the Museum of Anthropology at Taihoku Imperial University.

I dedicate this book to Hosokawa Takahide and all of those others who strived so hard and diligently during the most trying of times.

Prologue

The sun sank slowly below the Pacific Ocean, the sky gradually took on the hues of night and now the moon is shining through the coconut palm fronds; I had not previously imagined how dazzlingly bright the moonlight could be in the South Seas. The men and women of the village are gathered around a campfire, talking in a language I do not understand. I sit on the veranda, putting specimens in order by candlelight, [.....]and enjoying some of the delicious local food. The village headman had informed me with no little pride that Professor Kanehira Ryoza of Kyushu Imperial University had once stayed in this house. There is a constant sound of waves breaking against the rocks of the shore. I barely slept at night, tossing and turning, since I am unused to travel among native peoples.

Two weeks after setting out from the port of Yokohama on July 31st, 1933, the exhaustion of a long sea voyage was finally replaced by the excitement of being on an expedition to collect specimens of tropical flora. On Kosrae Island, Hosokawa Takahide finished his evening meal and came to a natural pause in the work of putting his specimens in order. He gave his field kit a quick clean and set it to dry, carefully stowed away his round-rimmed spectacles, then wrote the words quoted above.

That trip was Hosokawa's first specimen collecting expedition to the islands of the South Seas since graduating from Taihoku Imperial University. Made in the eighth year of Showa (1933), it lasted three months and was the first and longest of seven such expeditions Hosokawa would be making to Micronesia over the next eight years.

Hosokawa Takahide was part of the second graduating class at Taihoku Imperial University, and he had stayed on after graduation, taking up a post as an assistant in the Faculty of Science and Agriculture. He remained at the university in various roles until the end of the Second World War, after which he transferred to a teaching post at Kyushu University, working there until his ultimate retirement. He left behind more than six thousand botanical specimens in the herbarium at National Taiwan University (known as Taihoku Imperial University during Taiwan's half-century under Japanese rule), including almost four hundred rare and highly prized type specimens. Type specimens differ from ordinary specimens, as they are the actual specimens referenced by botanists when assigning scientific names to newly discovered plants. If a researcher wishes to confirm the identity of a found specimen, they must compare it to its associated type specimen and confirm no differences in the two in terms of time and place. These are the most important specimens for each particular plant species. Researchers typically make special trips to herbariums with type specimens if they need to confirm the identity of species found in the field. This means that, by and large, the number of type specimens held in a collection is an indicator of the history and scale of an herbarium. The only two herbaria in Taiwan with over one thousand type specimens in their collection are those of the Forestry Research Institute and National Taiwan University. Of the one thousand four hundred or so type specimens held by National Taiwan University, almost a third were collected by Hosokawa Takahide. Most of

Hosokawa's specimens were collected on the islands of Micronesia. However, they were shut away and out of sight for many years after the end of the Second World War. No curation was made and most Taiwanese botanists had little idea about the collection, which also meant that few knew of Hosokawa Takahide or what he had achieved. Yet beyond the considerable academic importance of these botanical specimens, Hosokawa as a person was deeply connected with Taiwan, and his research travels between the island and Micronesia stand as important testimony to the interactions between Taiwan and the South Seas region in those times.

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Hosokawa Takahide's initiation into the study of tropical plants began under the guidance of his tutor at Taihoku Imperial University, Kudo Yushun. Kudo was the university's very first Lecturing Professor in botany, charged with teaching and researching plant taxonomy and ecology. Hosokawa was enormously interested by what he learned under Kudo's tutelage when it came to the particular characteristics of tropical plants such as giant lianas and the arboreal ecology of towering rainforest trees. While in his third year, Hosokawa read a paper published in *The Botanical Magazine* by Kanehira Ryoza describing the woody plants of Micronesia. This was his first introduction to the flora of the South Seas. A series of subsequent reports by Professor Kanehira noted how much of the great biodiversity of Oceania was still unknown to science. Because much of this tropical region was new territory of the Empire of Japan, Hosokawa developed an acute interest in travelling to Micronesia to carry out research.

As an unknown recent graduate who had just turned twenty, young Hosokawa Takahide had numerous difficulties to overcome if he was to succeed in making a botanical research expedition into the South Seas Mandate. These included hunting down and collating the scattered research materials available on the region, coming up with ways to get to know the unfamiliar flora of the South Seas, establishing contacts with useful persons in the region, and raising sufficient funds to pay for the not-insignificant costs of such an expedition. As a young graduate of the second intake at Taihoku Imperial University, despite Hosokawa's enthusiasm for his studies and his dreams of researching tropical flora, it really was no simple matter for him to actually explore the natural world of the South Seas in person.

Given that, what good fortune or fate allowed Hosokawa to make those long trips across the sea to conduct his botanical studies? Our story ought to begin with his childhood experiences, and with the study habits he developed while an undergraduate at Taihoku Imperial University.

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Although Hosokawa Takahide's father was an elementary school general-studies teacher, he had a considerable personal interest in biology, and purchased books such as Oka Asajiro's *Lectures on Biology* and *Lectures on Evolutionary Theory* for the family home despite their strained financial circumstances. These books became little Hosokawa's favorite reading materials and,

even before graduating elementary school, and he read them time and again with unflagging interest. Oka Asajiro was a pioneer of biology education in post-feudal Japan and the first scholar to introduce evolutionary theory to educators in that country, explaining Nature using the perspective of the era-defining knowledge of modern biological science and the philosophy of biology, and making these an integral part of how biology was taught. It was perspectives on the natural world such as natural selection and evolution, so different from traditional natural history teaching that relied in the main on purely descriptive taxonomy, that enabled Hosokawa to regularly think outside the limitations of the standard branches of academia as he was learning, not only observing and describing plants and animals but also considering why they had evolved the way they had. The seeds of Hosokawa's enthusiasm and dedication to biological research had been planted in him since earliest childhood.

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Hosokawa Takahide's middle school academic record was merely average and, aside from his love of track and field, nothing about it stands out in particular. One teacher gave him the evaluation, "upright and reliable, conduct correct." This is far more subdued and low-key than our usual impression of the behavior of Taihoku High School students of this era, who were often described as rebellious, unorthodox, and given to lusty renditions with "storming" dance. The principal of Taihoku High School at that time was Misawa Tadasu, famous for his advocacy of new-style education. He had assembled a quite exceptional teaching faculty, including the English instructor Hayashibara Kozo, botanist Kamiya Tatsusaburo, geologist Saito Sai, and art instructor Shiotsuki Toho. Each ranked at the top of their respective fields of education at the time. Professor Kamiya had studied under renowned botanist Miyoshi Manabu at Tokyo Imperial University, and his special interest in plant geography influenced many of his students at Taihoku High School, including Kano Tadao and Hosokawa Takahide. After he retired in 1929, he was replaced by another legendary Taihoku teacher, Kanan Hiro.

After graduating from Taihoku High School, Hosokawa went straight on to his studies at the Faculty of Science and Agriculture at the newly-established Taihoku Imperial University as part of its second intake. Forty of the one hundred and twenty graduating students of Taihoku High School in Hosokawa's class chose to go on to undergraduate studies at the Imperial University, with most choosing to major in disciplines offering chances for future employment in prestigious or well-paid fields such as law and the agricultural sciences. Hosokawa Takahide was the only one of his classmates to enter a pure science department at Taihoku Imperial University, evidence again of his independence in thought and action, albeit hidden under a placid exterior. The tutor of his graduating class at Taihoku High wrote an evaluation of Hosokawa in their yearbook: "Ambitious with a strong sense of pride." This was a good broad-brush description of how Hosokawa's personality presented itself.

Personal materials related to Hosokawa's life in Taiwan are few, so we are quite limited in what we can know of his family life on the island. However, we can indirectly learn about his

doings and whereabouts during different times from the information attached to his collected specimens now kept in the herbarium's collection as well as from his published papers and the fragmentary accounts provided by his family. From these, we can piece together aspects of his life and career that were formerly unknown. Hosokawa's academic career, beginning from when he first began his studies at Taihoku Imperial University, included years of research in the South Seas as a researcher in Taihoku Imperial University and his professorship, which he held until his retirement, at Kyushu University.

The narrative that follows weaves together stories of Hosokawa's scholarly career in Taiwan and the South Seas.