9.0 By Way of Background: A Biographical Sketch of William M. Denevan

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Abstract This biographical sketch of the life and career of William M. Denevan traces his family history and his formative years and schooling in Southern California, his move to the University of California, Berkeley to complete his undergraduate training in geography, and his time spent in graduate school, punctuated by several exits for travel to South America and to Washington, D.C. for employment, only to return to complete and produce a highly regarded doctoral dissertation on ancient raised field complexes in eastern Bolivia. It follows him after graduate school to his first and only academic appointment – in the Geography Department at the University of Wisconsin, Madison, where he taught for 30 years before retiring in 1994. During these three decades, Denevan became recognized as a major figure in a several of research arenas, including New World historical demography, the landscape archaeology of pre-European forms of intensive agriculture, and New World tropical cultural and historical ecology. He also oversaw several dozen dissertations and master's theses, all but a few on related Latin American topics. His publication record was equally robust, authoring a number of books and edited collections, as well as dozens of articles and book chapters. Highlights of his retirement years witness a continued commitment to research and publication, proceeding at a pace equal to, if not surpassing his university years.

Keywords William M. Denevan · Biographical sketch · Berkeley geography University of Wisconsin · Madison

William Maxfield Denevan, like many geographers' coming of age in the early to mid-twentieth century, exhibited a strong interest in faraway places and high adventure from childhood. Unlike most of these erstwhile would-be adventurers, exploring the world through their stamp collections, cartophilia, and recreational reading habits (the stock adventure classics – Defoe, Twain, Kipling, London, and Halliburton to name a few), to his credit Denevan did not sublimate these youthful impulses once he

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started formal geographic study at the college level. If anything, he intensified them, in part propelling him through his highly productive career and laying a number of milestones and making major contributions along the way. In this biographical appreciation of Bill Denevan's life as a geographer, I focus on his contributions to geography and the related fields that he has so effectively tilled and tended (and so well illustrated by his publications in this volume, along with the accompanying commentaries). But I also recount elements and episodes from his own story, the context from which the more well-known and recognized results have been registered. I thank Bill himself for preparing and sharing a very detailed (we would expect less?) autobiographical essay, which digs deeply into his own genealogical history and then brings it up to the present. I've relied heavily on his essay in putting the biographical pieces in place and commenting on the contexts. Would that every scholar of Denevan's stature and accomplishments provide this kind of text and testimony.

Bill Denevan was born October 16, 1931, in San Diego, California, the oldest of four boys. His was a standard Depression and war years' childhood, but somewhat mitigated by the relatively benign Southern California milieu. In 1932 the family moved to Long Beach, where Bill grew up in a modest neighborhood, attending school and junior college. Bill's father Lester Denevan was born in Palouse, Washington, in 1903. He grew up in Spokane and counted Bing Crosby and Orvil Anderson (famed balloonist and WWII general) among his best childhood friends. Lester Denevan was a lifelong small "de" democrat, who dropped out of Gonzaga Jesuit High during WWI to work "in the woods." He witnessed the famous "Centralia Incident," a pitched armed battle between IWW militants and an American Legion mob under the pay of lumber barons. After marriage and moving to Southern California, he worked as an insurance salesman for various companies. Lester's parents (English, French, and Irish ancestry) were originally from Quebec and Iowa. Both families homesteaded on the prairie frontier near De Smet in the Dakota Territory in the 1880s. They were acquainted with Laura Ingalls Wilder's family, and the life they lived was well captured in Wilder's books. The spelling of the surname Denevan seems to have transmuted several times over two centuries: Dennovan (in France), DenEven (in Quebec), and later it was "Anglicized" to Denevan. Bill's mother, Wilda Alicia Maxfield, was born in 1909 in a log cabin with a sod roof on a ranch in the Colorado Rockies. Her parents and grandparents were originally from Maine, but came west for gold and silver mining. William Alfred Maxfield, Sr. (Bill's maternal great grandfather) was a mining engineer "who made and lost a fortune." When Wilda was six, the family moved to Victor, Colorado, a gold mining town that was in full throttle during the time they lived there – "numerous saloons, whorehouses, murders and suicides, bloody strikes at the mines, martial law" (Denevan nd). Wilda's maternal grandfather, William Gardner Snow, was a sailing captain who carried supplies to Union troops during the Civil War. Her father, Bill's grandfather and namesake, William Alfred Maxfield, Jr., was shot and killed during a train station robbery in Pando, Colorado, in 1912. When she was 14, the family moved to Grass Valley in the northern California Sierra Nevada, a much quieter mining area. Both of Denevan's parents instilled habits of hard work, self-reliance, the value of education, and a quiet skepticism of "the way things are." Sometimes

Lester Denevan, enjoying his daily spirits, would rail against "certain politicians, religious extremists, the John Birch Society, and others" (Denevan n.d.).

Bill's boyhood in Long Beach during the late Depression years, the war years, and after were spent as much outside as inside, whether home or school. Inside he enjoyed reading, especially books about travel and exploration, especially Africa (Burton, Speke, Stanley, Livingstone, and Osa Johnson), and adventure stories – Kipling, Jules Verne, Jack London, Edgar Rice Burroughs. Stamp collecting was another favorite pastime – particularly the British colonial lands. Outdoors, beaches were close at hand, and he liked to go ice skating with his father on weekends or hang out at the amusement park. Once he discovered tennis, it became his main pastime. He excelled and helped his teams win championships. He made the varsity squad, lowest member, at Berkeley. They were voted the national NCAA champions his senior year. He continued to play into his 80s, winning numerous local and regional age-division tournaments. As he is quick to point out, other devoted tennis-playing geographers have included Carl Sauer, Ellen Churchill Semple, Leslie Hughes, George Lovell, and Bill Davidson. In high school he also began his Spanish classes that proved to be a key asset in his graduate studies and throughout his career. As was the custom and requirement in US doctoral education until the late 1960s, he had to pass French and German reading tests. His French proved passable (with Clarence Glacken administering the exam) but with German under John Kesseli's watch, a native Swiss German and French speaker, he was not so lucky. He failed Kesseli's German tests "over and over" but finally managed to pass it under Glacken when Kesseli was out sick for a spell.

In his senior year of high school, he began considering college and where to go. On the strength of his tennis, he was offered a partial scholarship at Redlands University. He interviewed, but realized that without a full scholarship, it was out of reach. Instead, he enrolled in Long Beach City College in the fall of 1949. There he thrived, a standout in tennis and his course work, especially history, anthropology, and geography. His favorite professor was Dr. Adolf Stone, a German Jewish geographer who escaped Germany in the 1930s. Stone had been a student of Karl Haushofer's at the University of Munich and after the war helped interrogate his old professor at the Nuremberg trials. Graduating from Long Beach City College with an associate's degree in 1951, he entered Berkeley that fall. Before leaving for Berkeley, Denevan met with Professor Stone, who advised him to take courses with Carl Sauer. Stone's recommendation was followed, and Sauer's lectures convinced Denevan that geography was the logical major. He also took courses from Clarence Glacken, John Leighly, and Erhard Rostlund in geography, John Rowe and Robert Lowie in anthropology, and George Stewart in English. Along with geography, Denevan was a committed sports fan, never missing a home football or basketball game. And, of course, he played tennis on the championship Berkeley team. He graduated in June 1953, with a major in geography, an "unofficial" minor in anthropology, and a varsity ("Big C") letter in tennis.

After graduating from Long Beach City College, his father had advised him to join the Naval Reserves, thus avoiding a possible Army draft during the Korean War. Entering Berkeley he received a deferment, but upon graduating he was committed

to do his 2-year service in the Navy. He went from boot camp in San Diego, to naval air ground crew training in Norman, Oklahoma, and then on to weather (aerology) school in Lakehurst, New Jersey, given his degree in geography. There he was trained in weather dynamics, mapping weather data and making and recording weather observations. He graduated first in his class of 30, which gave him a choice of 30 naval air stations in the USA, Cuba (Guantanamo), and in the Mediterranean aboard the aircraft carrier USS Lake Champlain. He chose Miramar Naval Air Station near San Diego, to be close to, as it turned out, an ephemeral girl friend.

Discharged in June 1955, Denevan took a summer field course in geography at UCLA. The course convinced him to go on to graduate school in geography, but at Berkeley, not UCLA. His initial year in the master's program did not go well. Unlike his undergraduate experience, he didn't excel, and mostly scraped by. He decided to drop out and do his geography directly – hit the road and travel. He found out that he could work on a Norwegian freighter circumnavigating South America and see the ports on both coasts from Los Angeles to Punta Arenas and back again through the Panama Canal. He jumped at the chance, but made it only to Lima, Peru, where he jumped ship. Once in Lima, he found work writing for the *Peruvian Times*, an English language newspaper. For the next 5 months, he learned how to write feature stories, as well as simple news items. His job as a roving reporter took him to many places in Peru, Bolivia, and Brazil, including Amazonia.

While still at Berkeley, Bill had applied for a Fulbright Fellowship to do master's fieldwork in the Atacama Desert. He had assumed it was a dead letter, but he received a quite alive letter in Lima offering him a Fulbright, not for Chile, but for Nicaragua. He immediately accepted and turned his sights on Nicaragua. Covering the country on trucks, buses, horses, mules, boats, rafts, and on foot between January and August 1957, he hit on a study of Nicaragua's upland pine forests for his master's research. He also spent a couple months working for the Inter-American Geodetic Survey indicating place names on air photos in the highlands, giving him valuable knowledge of vegetation distributions. Having completed master's fieldwork in advance of his return to graduate school, he was in a much better shape to resume his studies.

Earlier Bill had one of those amazing coincidences that travel sometimes precipitates. Before travelling up the length of the Amazon reporting for the *Peruvian Times*, he ran into his future master's and Ph.D. advisor, James J. Parsons, and LSU geographer Richard J. Russell in an outdoor restaurant-bar in Belém, Brazil. Denevan recognized Parsons, and over beers, Parsons (who had been on leave during Denevan's lackluster first year of graduate school) persuaded Denevan to give it another try. Thus, he was doubly primed to take another run at it. Parsons was all for the pine study, having done a pine study himself a few years earlier on Nicaragua's Miskito Coast. Parsons chaired the committee, with botanist/pine specialist Nicholas Mirov and forester Edward Stone. The thesis argued that the pine formations were the result of aboriginal burning and not strictly an adaptation to physical conditions, such as edaphic or climatic factors. Besides successfully defending his thesis (*The Upland Pine Forests of Nicaragua*) and graduating in 1958, he met Patricia Sue French, senior English major from Mill Valley. He had been working as a "hasher"

(meal server and dishwasher) at her residence hall. They were married on the solstice (June 21, 1958) following graduation.

Having been awarded his master's thesis, getting married, and not getting any special encouragement from the Berkeley geography faculty to continue on for the Ph.D., Denevan began to look around for a job. He found work with the National Intelligence Survey (NIS) that produced basic reports for the State Department, embassies, the military, and the intelligence agencies. Denevan's office was charged with editing the physical geography compendia on a wide variety of topics from foreign countries, including maps on climate, terrain, soils, vegetation, and coastal waters. The office head was C.S.F. Sharpe, a geomorphologist who had worked with Carl Sauer on a survey for the Soil Conservation Service during the 1930s. Denevan surmises that this connection my have helped him in getting the job. There were downtimes, and during those slack periods, Denevan was able to read the office's back issues of the *Annals of the Association of American Geographers* and *Geographical Review,* "on government time."

By spring Bill realized that maybe a Ph.D. program would be in his future. He attended the AAG meeting in Pittsburgh and ran into James Parsons. Parsons was very encouraging, saying that they felt his thesis actually was excellent, and they wanted to publish it in the department's monograph series, *University of California Publications in Geography*. On the strength of this, Parsons also said that they could offer him an assistantship if he returned. The choice was not hard. Wife Susie was now pregnant with their son Curt, and California was beckoning. Denevan jumped into his new role as ex-intelligence analyst and future dissertator. In 1958–1959 he was teaching assistant for John Leighly's cartography class and John Kesseli's California regional course. He took seminars with Sauer and Parsons and wrote papers for Sauer on the origins of human-horse relations and the domestication of the peanut. That summer, 1960, he spent teaching geography at the University of Manitoba. This was his first teaching experience, and Denevan, who admits to being not the most extroverted of individuals, found it "very traumatic," but ultimately rewarding. Thus, another milestone passed, he returned to Berkeley with increasing confidence.

That fall he audited a class on South America given by Hubert Wilhelmy, a visiting professor from Tübingen University. In one lecture Wilhelmy talked about the little-known Llanos de Mojos region of eastern Bolivia. There were rectangular and linear miles of ancient earthworks amid the seasonally flooded savannas. Wilhelmy said that the famous geographer Carl Troll had told him that the French anthropologist Alfred Métraux had learned of these strange constructions from reports written by the Swedish ethnologist Erland Nordenskiöld who had actually seen them around 1910 (Denevan 2009; Nordenskiöld 2009). Denevan remembered seeing configurations in the landscape while flying over the region a few years before, on assignment for the *Peruvian Times*. He had initially considered a study of the Mojos' present-day inhabitants and their adaptation to the seasonal round of flooding and desiccation for his dissertation research. But in the field he turned his head toward the Mojos' pre-European inhabitants and their adaptions to this challenging environment. Once on this trail, Denevan followed all the leads that he could turn up. Oil

geologists, both at Berkeley and later in Bolivia, helped by supplying aerial photos of the region. The more he looked, the more he found. He applied for and was awarded a National Research Council dissertation fellowship that allowed Bill, Susie, and Curt to set up shop in Cochabamba, Bolivia, for the year 1961–1962. From there Denevan took passenger prop planes to Trinidad, the regional capital of the Beni Department. Aerial photos, augmented by extensive survey of the region on foot, by horseback, canoe, oxcart, truck, and bush plane, established that there was a vast array of pre-European constructed features, primarily linear raised fields for cultivation, causeways for foot traffic during the flood season, canals, and mounds for habitation. One of the high points of the year was receiving a letter from Carl Sauer congratulating him on "finding pay dirt" and pursuing "a major problem."

In August 1962, after the year of fieldwork with much accomplished, Bill, Susie, and Curt returned home on an Italian freighter. One of Bill's last days in the field was spent riding in an oxcart and running out of potable water. Drinking out of a ditch, he contracted hepatitis, which he came down with on the return voyage. It took several months to fully recover, with slow to no dissertation progress. Also needing income, he was offered a 2-month job with the International Association for Economic and Social Development (Rockefeller Foundation) with a team of geographers, soil scientists, and agronomists surveying the agricultural potential of the scrub savanna landscapes of the Planalto Central of Brazil. The team concluded that the region had considerable potential if fertilized with crushed limestone. The report was ignored for several decades, but then Brazil's soybean revolution proved them right. Back in Berkeley in January 1963 (two of the previous years in Latin America and one in Washington, DC), recharged and ready to write, he pushed through and filed the dissertation in August of that year. Parsons chaired the committee, with Carl Sauer and archaeologist John Rowe the other committee members. This time the Berkeley faculty were more demonstrative in letting Denevan know that he had done an excellent job with his dissertation work, and the dissertation was selected for publication (1966a) in the University of California Press *Ibero-Americana* series.

Denevan's time in and out of graduate school spanned less than a decade – 1955–1963, which was about average for completing graduate programs in geography at that time. He was 31 years old when he received his Ph.D. degree in August, 1963. He immediately began looking for a teaching position. He visited UCLA, but with two Berkeley Ph.D's already on the faculty, there was little interest in hiring another at that point. He turned to San Fernando Valley State College (now Northridge), and they were more receptive. He received an offer and accepted, but then he received a phone call from Andrew Clark at the University of Wisconsin-Madison, inviting him for an interview. At the time, the Madison Geography Department was the National Research Council's top-ranked department. Presumably Parsons (who had been in the 1938 entering Ph.D. class at Berkeley with Clark, along with several of the other "Berkeley All Stars" including Robert West, Dan Stanislawski, and George Carter) or perhaps Sauer himself (Clark's Ph.D. advisor) had made a call to Clark. Phone call arranged hirings were, if not quite the norm, not unusual in those days. Denevan was spared giving a job talk and

landed the job. In some ways his first year teaching at Madison was not unlike his first year in graduate school. He survived it, but was less than satisfied with his performance or what the departmental powers relegated and delegated to the junior faculty. He was given the conservation course to teach, and this proved something of an ordeal, requiring lots of late nights preparing lectures. For his second assignment, he was actually posted as Karl Butzer's teaching assistant for the physical geography class! Denevan was expected to take that on as one of his "bread and butter" courses, but apparently the quadrumvirate that ran the department (Andrew Clark, Richard Hartshorne, Arthur Robinson, and Glenn Trewartha) felt he needed extra preparation before being trusted as instructor of record in this class. Something similar had happened to Butzer when he was hired in 1959. Initially he was not allowed to conduct the introductory physical geography class.

After this shaky first year, Denevan applied for a post-doctoral fellowship from the Ford Foundation and was awarded one to do research in Peru for 2 years starting in January 1965. The family (now with the addition of daughter Victoria, born in 1963 in Madison) moved to an apartment in Lima's Miraflores district. Susie taught at the American School, as she had done earlier in Cochabamba. From Lima Bill ranged widely, both in the Andes and the Amazonian lowlands. In the high Andes he studied the raised fields he helped locate around Lake Titicaca, and in eastern slopes of the Andes, he studied house gardens in Moyobamba. In the Oriente he studied Campa Indian subsistence and the ecology of the Gran Pajonal and Río Heath savannas. He took advantage of hopping rides on bush planes with various missionary groups, particularly the Summer Institute of Linguistics. While in Lima, he ran into Woodrow Borah, Berkeley historical demographer. Borah invited him to attend the International Congress of Americanists in Mar del Plata, Argentina. Denevan presented a paper on the 1492 population of western Amazonia. This effectively launched his career-long interest and expertise in the aboriginal population of the Americas. This was also the precursor to his authoritative edited book, *The Native Population of the Americas in 1492* (1976, 1992).

While his time in Peru allowed him to not only help lay the foundations for his future status as one of geography's foremost Andeanist and Amazonianist scholars and regain his footing (he was much more sure-footed in the field than early on in the classroom), his absence from Madison was apparently not viewed all that favorably. The departmental powers let him know that gaining tenure was unlikely, and he should go on the job market. From Peru, during the pre-internet age, this was not all practicable, as well as premature, given that he had only been on campus three semesters, not the normal 3 years before this kind of review. At the same time, the department lost three of its most promising faculty – Karl Butzer, Jonathan Sauer, and Fred Simoons, all with cultural/historical/human-environment interests not dissimilar from Denevan's. All three were offered jobs at LSU. Sauer and Simoons accepted, and Butzer accepted a subsequent offer from the University of Chicago.

To his credit, Denevan returned to Madison and fought the edict. He was soon reviewed for tenure and promotion and was denied. Given another year, on the second try in 1968, he made it. His increasing file of significant publications paved the way. These included several articles and monograph drawn from his dissertation

and his (1966a) often-cited cultural ecological explanation of "former aboriginal" settlement of the Amazon Basin. He also published on livestock in the Mojos and New Mexico. But it was his articles on ancient raised fields that attracted the most attention and helped to establish a scholarly research current that continues to the present. The highest profile publications were his cover article in *Science* (1970) and with Parsons in *Scientific American* (1967). Though occasional geographers, anthropologists, and archaeologists going back to Alexander von Humboldt had some understanding that ancient Americans had made major wetland landscape modifications, especially with the surviving example of Mexico's famed *chinampas*, it was not until Denevan put the pieces together and begin to see them in their continental dimensions and their historical ecological significance, that the phenomenon was recognized for what it is: an agro-environmental adaptation of import and complexity equal to the great pre-European works of water (irrigation) and slope (terracing) management.

By the late 1960s, Denevan had begun to attract graduate students. His first, Daniel Gade, had been working with Jonathan Sauer, but with Sauer's departure, Denevan became co-director with Henry Sterling of Gade's (1967) dissertation, a study of plant use and agriculture in the Vilcanota Valley, Peru. Marshall Chrostowski also pursued doctoral research in Peru, but never completed his dissertation – the only one of Bill's 21 Ph.D. candidates who did not finish. Chrostowski served as Denevan's research assistant in biogeographical field studies in the Gran Pajonal of eastern Peru (Chrostowski and Denevan 1970) and for raised field research in the Orinoco Llanos of Venezuela. Denevan's next Ph.D. student, Bernard Nietschmann, elected to follow Denevan's footsteps in Nicaragua and not Peru. Nietschmann (1970) studied the subsistence ecology of the Miskito Indians on Nicaragua's Caribbean coast. His dissertation was published by Seminar Press (1973), becoming something of an instant classic that helped launch his career first at the University of Michigan and then at Berkeley. Denevan oversaw the completion of the dissertation of another one of Jonathan Sauer's biogeography students, Roger Byrne, who studied vegetation change in the Bahamas (1972). Byrne, like Nietschmann, joined the Berkeley geography faculty. In 1972, 4 years after his first promotion, Denevan was promoted to full professor. Thus, in 9 years (two of those in Peru), he went from entry assistant professor to full. While not a record (Carl Sauer went from instructor to full professor in 7 years), it was a vindication of his abilities and a good deal faster than the normal span of twelve years.

By the mid-1970s the campus turmoil that had rocked Madison for the previous decade abated, and the departmental "hierarchical/authoritarian" rule (to quote one of the eminent departed former faculty members) was dissipated through retirement (Hartshorne, Robinson, and Trewartha) and premature death (Clark in 1975). In this more stable environment, Denevan was able to push on with a number of projects, attract new students, and solidify his position as one of American geography's foremost Latin Americanists. Among these new students, Roland Bergman (1974) took the thread back to Peru, studying Shipibo indigenous subsistence in the Peruvian Amazon. Billie Lee Turner II (1974) opened up a new theater in the Denevan doctoral students' foci – Mesoamerican research. Turner produced a paradigm-shifting

study of ancient Maya subsistence and intensive agriculture in the Maya lowlands. With an article in *Science* before even defending his dissertation, and prior appointments at the University of Maryland-Baltimore and the University of Oklahoma, Turner's career went into high gear with an appointment at Clark University by the end of the decade. Denevan's final doctoral student in the decade of the 1970s, Mary Daum, had begun her research with Sterling, a specialist on Venezuela, but with Sterling's retirement, Denevan chaired the committee. She (1977) did a study of land amalgamation in Barinas state, Venezuela. Starting in 1969 and continuing through the 1970s, Denevan also oversaw a number of master's theses. These were as follows: Roland Bergman (1969) Chirripo shifting cultivation in Costa Rica, Thomas Magness (1969) conch harvesting in the Bahamas, Hector Rucinque (1972) agricultural colonization in eastern Colombia, Stuart White (1975) logging in eastern Peru, Paul Blank (1976) Macusi subsistence in northern Amazonia, Kent Mathewson (1976) *tablón* horticulture in highland Guatemala, Daniel Parr (1978) land use in northern Guatemala, and Gregory Knapp (1979) sunken fields in coastal Peru. These helped fill out the early map of Denevan students' research locations.

By the mid-1970s Denevan was taking on new responsibilities, advising an increasing number of students, widening his international networks, and refining some of his earlier research foci. His long-time interest in pre-European historical demography resulted in his (1976) landmark edited volume, *The Native Population of the Americas in 1492*. This book established Denevan as one of the main authorities and arbitrators on the debate over the size of the pre-European populations of the Americas. He had shifted his earlier Berkeley cultural-historical approach to human-environment relations in the American tropics, to a more theoretically rigorous cultural-ecological perspective and approach as evidenced by his (1978) co-authored monograph on *Adaptive Strategies in Karina Subsistence, Venezuelan Llanos*. He published 14 articles and book chapters, including his (1973) widely cited and circulated critique of Amazonian development – "Development and the Imminent Demise of the Amazon Rain Forest." His number of advisees in the 1970s doubled from the previous decade. During the 1970s Denevan was a regular attendee and participant in the Conference of Latin Americanist Geographers (CLAG). He edited the 1978 CLAG Proceedings and served on the CLAG board. He presented papers at six international conferences, received honors from the Sociedad Geográfica de Lima, and was awarded grants from the American Council of Learned Societies and the National Science Foundation among other sources. In 1977 he was awarded a John Simon Guggenheim Fellowship, one of US academia's most prestigious awards. He served on several editorial boards, including *Geographical Review*, *Luso-Brazilian Review*, and *Antropológica* (Caracas), and organizational boards including the Organization for Tropical Studies. He also served as director of the University of Wisconsin, Madison Ibero-American Studies Program and Latin American Center.

The decade of the 1980s saw Denevan in full stride, beginning with a 3-year term as chair of the Geography Department. In 1987 he was awarded with a named professorship – the Carl O. Sauer Professor of Geography. He was given top honors from the AAG and CLAG. He received grants from UNESCO, the US National

Science Foundation, and the National Geographic Society for research on agroforestry and on terracing in Peru, also a National Endowment for the Humanities grant for research on his (2001) book *Cultivated Landscapes of Native Amazonia and the Andes.* He edited five books including a tribute reader (1989) of his advisor James Parsons' publications and 20-some articles and book chapters. He continued service on earlier editorial boards and joined the *Professional Geographer* board. His service included committee and board memberships on a number of national and international organizations, and he was elected ntional councilor of the AAG. He presented papers at nine international conferences and symposia. He had frequent invitations to speak at various universities and serve as panelist and discussant at meetings and conferences. During the decade he directed six successful Ph.D. dissertations, all based on South American research. Stuart White (1981) went to the field in highland Peru to do a cultural ecological study, but ended up producing a "novelistic" work. Hildegardo Córdova (1982) followed this up with a more conventional study of the "negative development" impacts of road building in Frias, Peru. Gregory Knapp (1984) and Kent Mathewson (1987) did studies of pre-European intensive agriculture in Ecuador. Knapp's study was situated in the northern Andean basins and Mathewson's in the coastal Guayas Basin. John Treacy (1989) produced a study of terracing in the Colca Valley of Peru, as part of a large interdisciplinary project directed by Denevan. David "Toby" McGrath (1989) broke new ground, at least for Denevan students, studying Brazilian Amazonian river traders. Master's students included Pascal Girot (1984), coffee farming in northern Peru; Michael Johns (1985) uneven development in Nicaragua; Andre Parvenu (1986) Central American refugees; and Lisa Naughton (1987) conservation in Costa Rica.

Moving into the decade of the 1990s, Denevan increasingly looked forward to retirement, having accomplished much of what he envisioned doing in his formal career as field-oriented geographer and advisor of graduate students. With his largest and most ambitious field project behind him – the multiyear, multi-personnel, and multidisciplinary Colca Valley Terracing study (1986, 1988) – and his major book project (2001) funded and on its way, he took relatively early retirement in 1994 at age 63 and became Carl O. Sauer Professor Emeritus. Still a break with Madison, and daily interaction with colleagues and students, was a few years off. He continued to publish through the decade at the same pace as earlier – some 14 articles and book chapters. He also revised a second edition of his benchmark pre-European population book for the Columbian Quincentenary (1992). Also, as part of a quincentenary volume, the memorable 1992 special issue of the *Annals of the Association of American Geographers* on "The Americas Before and After 1492," he contributed "The Pristine Myth: The Landscape of the Americas in 1492."

The "Pristine Myth" was something of a sensation, reverberating through various halls of academia, but also ricocheting around the popular media, including favorable mention by such disparate figures as conservative radio host Rush Limbaugh, Native American historian Dan Flores, and columnists and journalists such as Charles Mann. Mann (2005, 2011) expanded Denevan's main theme – that pre-1492 the Americas were hardly a pristine wilderness as often depicted – into his excellent

and best-selling book *1491: New Revelations of the Americas Before Columbus* and its sequel, *1493: Uncovering the New World Columbus Created*. Twenty-five years later, Denevan (2016) published a sequel to "The Pristine Myth," titled "After 1492: Nature Rebounds."

While Denevan may have taken formal leave of the classroom in 1994, there was still the matter of advisees in "the pipeline" that needed supervision. During this final Madison decade, he oversaw more completed theses and dissertations than any previous decade – seven Ph.D. dissertations and ten master's theses. Oliver Coomes (1992) studied peasant economy in the Peruvian Amazon; Robert Langstroth (1996) reprised aspects of Denevan's Mojos work in Bolivia; Laurie Greenberg (1996) looked at Yucatecan house lots; Michael Castellon (1996) studied deforestation in eastern Guatemala; and Sarah Brooks (1998) contributed to the Colca Valley Project with a terrace study. In addition, Denevan co-chaired three dissertations: Lourdes Giordani's (1997, in Anthropology) study of Yabarana ethnogenesis in Venezuela, William Gartner's (2003) massive survey of "raised field landscapes in North America," and Joseph McCann's (2004) study of anthropogenic soils in Amazonia. In a sense, Gartner brought it "all back home" with his Upper Midwest-based raised fieldwork, keeping Denevan on duty as a formal graduate student mentor for a decade past retirement. The master's theses included Emily Young (1990) on Mixtec migration in Mexico, Serge Dedina (1991) on Tijuana River Valley development, Mrill Ingram (1991) on Agave fiber industry in Ecuador, Michael Castellon (1992) on forest preservation in highland Guatemala, Christian Brannstrom (1992) on Nicaragua's trans-isthmian canal, Ellen Webber (1993) on Colca Valley cattle raising, Maya Kennedy (1993) on pastoralism in Sardinia, William Gartner (1993 co-directed) on soil analysis of a Wisconsin archaeological site, Joseph McCann (1993) on fruit and fiber gathering in Peruvian Amazon, and Louis Carlo (1995) on agricultural study in Puerto Rico. Denevan, over a 30-year span, oversaw more than 20 master's theses and 20 doctoral dissertations. All but one dissertation, William Gartner's, involved fieldwork in Latin America or the Caribbean, though Gartner did take Denevan's signature topic – raised field agriculture – and demonstrate that it was widespread in parts of North America, just as Denevan had done himself for Latin America. All of his master's students, save for two, also wrote theses on Latin American topics. No other North American Latin Americanist geographer has overseen as many dissertations and theses on Latin American topics as Denevan. Six of his dissertators have gone on to tenured positions in Ph.D. granting geography departments, and they in turn have overseen some dozens of dissertations, most with Latin American foci.

In addition to his formal advisory role with his own graduate students, spending untold hours, days, weeks, months, and years, guiding toward degrees, he was informal mentor to a number of graduate students in geography and in other Wisconsin departments, including anthropology, history, botany, and Latin American studies. These include the following (with their dissertation locales): Ray Henkel (Bolivia), Barbara Williams (Mexico), David Stemper (Ecuador), and Antoinette WinklerPrins (Brazil). Denevan served as an external examiner for the dissertations by anthropologists Clark Erickson (1988) (Illinois) and Pawel Gorecki (1982) (Sydney) and

geographer Emily Young (1995) (Texas). In addition, he served as informal advisor or mentor to a number of other scholars, both in graduate school and out. Among those with closest ties are Bill Doolittle, Clark Erickson, Susanna Hecht, George Lovell, Christine Padoch, Darrell Posey, and the journalist Charles Mann. Many students and former students collaborated with Bill and contributed to research on topics featured in this volume. As his complete publication list (contained herein) attests, he has co-authored articles and monographs with a number of his students along with scholars in a variety of fields and institutions.

In January 1996 Bill and Susie made the final move to their home and retirement destination at Sea Ranch, in northern California. They had originally bought property for their eventual retirement home at the planned residential complex in 1970. Over the years they spent many vacations at Sea Ranch, but with most of his students defending their dissertations by 1996, he was ready to close the Madison chapter of his career. However, Denevan's retirement and residence at Sea Ranch did little to slow down his scholarly production. If anything, for the next two decades, it picked up a notch or two. He completed his (2001) magnum opus – *Cultivated Landscapes of Native Amazonia and the Andes* – and co-edited (2009) a reader of Carl Sauer's publications, *Carl Sauer on Culture and Landscape*. Over this period he published another 30 articles and book chapters, many drafted in his crow's nest study using materials from his extensive library, which was transferred from Madison to Sea Ranch. Retirement honors include being elected Fellow of the American Academy of Arts and Sciences (2001) and receiving the Arch C. Gerlach Prize (2001–2005) from the Pan American Institute of Geography and History for "Outstanding contributions to the development of Geography in the Americas." While the pleasures of a stunning view of the Pacific Ocean and all the amenities of Sea Ranch's resort-style residential development were at hand, during these two decades, Denevan continued to be an active conference goer and correspondent.

Not all retirement travel has been grist for the geographic mill. Since retirement, Bill and Susie have travelled in Europe, Canada, and Mexico. In 2001 he went with his brother David (a Vietnam War veteran) and their nephew Robin and niece Monica to Vietnam, and the next year they went to Angel Falls in southern Venezuela. Occasionally, the world (or at least members of Denevan's professional world) has come to Sea Ranch. In 1994, 2007, and 2016, the Denevans' hosted well-attended weekend get-togethers following the AAG national meetings held in San Francisco. Even more expansive have been the several special sessions held in his honor at AAG meetings over the years. The legacy of William Maxfield Denevan in American geography is clearly evident, not only in his enviable record of fieldwork and publication but also in the career accomplishments of his many students. Perhaps even more legible is his impact and influence on scholarly activity outside of geography's precincts. As this volume makes abundantly clear, he directly instigated or inspired research and publication and a half-dozen or more arenas – including raised field investigations, hemispheric study of aboriginal demography, cultural biogeographic work, and indigenous ecology, to name the most salient. Although a three-degree geographer and a lifelong devotee of the discipline and its craft, his views and

purview have been registered well beyond. And given the solidity and durability of what Bill Denevan has pursued and produced, this legacy is not likely to fade or be forgotten by those that carry on what he, in many cases, started or elaborated.

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