

## The Story Behind the Escalon Man

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### Abstract

This study was aimed at documenting the Asia-Oceanian prehistoric chronology and reconstructing Neolithic culture by marrying human biology, population genetics, dentistry, and prehistoric bone chemistry with anthropology, archaeology, and history.

Its focal point is the Escalon Man, whose human skeletal remains were found in a cave along the Escalon River in Cagniog, Surigao City. First, the study proved that the Escalon Man was a young male Neolithic person, an agriculturalist still engaged in hunting and food gathering, with radiocarbon dating of 2600 BP1. Second, the study used the most advanced mitochondrial DNA analysis tool, MiSeq, thereby establishing the Escalon Man as belonging to migratory Neolithic Austronesian-speaking humans from Southeast Asia, who dispersed eastward to Taiwan and southward to Philippines, with some spreading to Polynesia2.

The Escalon Man is distinct as being the only archaeological human skeletal evidence of a prehistoric Austronesian speaker in the Philippines. Thus, the Escalon Man of Surigao City is the most significant Neolithic Man discovery in the Philippines since the Duyong Man was unearthed by the anthropologist, Dr. Robert Fox in Duyong Cave, Palawan in 1962 – 1966.

Jun Almeda is a public manager with a deep sense of history, cultural awareness and a lifelong commitment to preserve the precious heritage of the Surigaonon people.

We first met him during the Philippine National Historical Society's 4th National and Local History Conference in 1981 held at the Roman Catholic-affiliated University of San Carlos in Cebu City convened by Dr. Resil B. Mojares.

Since 1985, we have successfully partnered with Jun Almeda in putting together national and international conferences, seminars, workshops, and research projects in Surigao del Norte, with dreams as our only capital and our labor of love.

The 7th National and Local History Conference of the Philippine National Historical Society (PNHS)—founded in 1941—which we co-organized in 1985 in Surigao City gave birth in 1986 to the Surigaonon Heritage Center (SHC) and

to the Surigaonon Childrens Library, both based in Surigao City.

Jun Almeda and his fellow Surigaonon intellectual elite in the local organizing committee saved more than PHP35,000 from the said conference, and used the amount to incorporate the two remarkable NGO entities.

Please see the Journal of History (Volumes 34-35, 1989 and 1990) published by the Philippine National Historical Society for the papers of the 7th National and Local History Conference of the PNHS in Surigao City, with Fernando A. Almeda, Jr. as Issue Editor.

For the history of the SHC, please see Fernando A. Almeda, Jr., "Civil Society, Cultural Values and Sustainable Development: The Experience of the Surigaonon Heritage Center (SHC), an NGO, as a Culture Advocate—1986–2006," in Takeshi Kimura and Leslie E. Bauzon (eds.), Proceedings of the International Surigao Conference on

"Cultural values and sustainability: Dialogue between Japan and the Philippines" August 20 to 21, 2006 (Tsukuba City, Japan: University of Tsukuba Graduate Program in Area Studies, Area Studies Occasional Paper Series No. 3, March 2007), pp. 9-18.

During Leslie E. Bauzon's six-year term (1983-1989) as the first dean of the University of the Philippines College of Social Sciences and Philosophy (UP CSSP) in Quezon City, Jun Almeda and Bauzon both put together Extramural activities in the Social Sciences that benefited the teachers belonging to the Department of Education (DepEd) Surigao del Norte Division and to the DepEd Surigao City Division.

It was Jun Almeda who sent Bauzon an RCPI (Radio Communications of the Philippines, Inc.) telegram in 1990—there was no Internet and no cellphones yet—informing him about the accidental discovery of dugout log coffins containing skeletons and ceramics in Panhutongan, Placer, Surigao del Norte.

This led to the three-year (1991-1994) joint project—primarily funded by the Toyota Foundation and the Daiwa Bank Foundation of Asian and Oceania—with Dr. Eusebio Z. Dizon of the National Museum of the Philippines.

Please see Leslie E. Bauzon and Eusebio Z. Dizon, "Archaeological Discovery in Surigao," *KINAADMAN* [Xavier University], XIX (1997), pp. 11-25. (Found online in [www.bauzon.ph/leslie](http://www.bauzon.ph/leslie))

During the years 1991-1994, Jun Almeda and his wife Dr. Luz S. Almeda, retired Regional Director of the DepEd National Capital Region based in Quezon City, invited Bauzon to speak in a DepEd Agusan del Sur Division Local History Seminar in Prosperidad, Agusan del Sur, where they introduced Bauzon to Manobo Datu Hawodon Manggosawon (Terminator).

This resulted in Bauzon's becoming interested in the Manobo people, leading to extended field research with Surigaonon writer Eulogio V. Eleazar in the predominantly Manobo settlements of Cabangahan, Cantilan, Surigao del Sur where Bauzon ate mangrove woodworm tamilok for his meals, and with Dr. Almeda in the upstream riverine town of Loreto in western Agusan del Sur close to the boundary of Bukidnon province.

Kindly refer to Bauzon's ethnohistorical *People of the Upstream: A Reconstruction of Manobo Social Reality* (Quezon City: UP CSSP Publications, 1999).

A shorter version of the above study entitled "Philippine Nation and Minority Culture: A Reconstruction of Manobo Social Reality" is available in Tsuneo Ayabe (ed.), *Nation-State, Identity and Religion in Southeast Asia* (Singapore: Singapore Society of Asian Studies, 1998), pp. 97-126.

The article in Prof. Tsuneo Ayabe's book has been translated to Nihongo by the sparkling young Japanese Filipinist Dr. Emi Kainuma of Risho University in Tokyo and is found under the chapter heading "Manobo" in Tsuneo Ayabe (ed.), *The First Peoples of Southeast Asia* (Tokyo: Akashi Shoten, 2005), pp. 240-257.

In 2003 while Bauzon was teaching at the national University of Tsukuba in Tsukuba City, Japan, Jun Almeda asked for his help in the carbon dating of the human skeleton now known as the Escalon Man that has been long displayed in a glass encasement found in the SHC Museo nan Surigao in Surigao City.

Local treasure hunters led by an affluent furniture maker and dealer way back in the late 1980s unearthed this human skeleton in Escalon Cave on the cliff of the shallow Escalon River glen or gorge in the hilly, forested Cagniog village of Surigao City.

We detest treasure hunting and we despise treasure hunters because they destroy archaeological sites through their indiscriminate diggings purely for mercenary purposes.

Blinded by immoderate greed, they completely fail to realize that the greater treasure is in knowing about and shedding light on Philippine prehistory and culture as the bedrock of our identity as Filipinos.

Their treasure hunting deprive archaeologists of the opportunity to study, document, and analyze artifacts found in situ, in their actual archaeological context like soil stratification and their relationship to other artifacts.

The artifacts collected by treasure hunters and displayed by them in glass cabinets may be beautiful to look at, but these collections are scientifically worthless as well as useless for the reconstruction of prehistoric chronology and culture precisely because they are no longer in context in terms of provenance, age and depth of the excavation.

It is a pity that treasure hunting, financed by selfish wealthy antique collectors and dealers, is very rampant in the Philippines. As a matter of fact

treasure hunting is even fostered by the Office of the President of the Republic which has the authority to issue permits to treasure hunters.

At any rate, the name Escalon Man given to the human skeleton found in the Escalon Cave along Escalon River is based on where the human remains were unearthed and found.

One of the treasure hunters, a local furniture manufacturer and dealer now deceased, fortunately and to his redemption turned over to Jun Almeda in 1993 the human skeleton found in Escalon Cave.

It is said that this furniture maker and dealer felt cursed by his accessing the Escalon Cave in violation of the custom of enlisting the assistance of the local shaman to conduct a ritual ceremony to seek the permission of the spirits prior to entrance of the Escalon Cave.

Thus feeling accursed, the treasure hunter-furniture maker and dealer felt compelled to give to Jun Almeda the human skeleton he and his fellow treasure hunters dug in the cliff cave along Escalon River.

We are reminded of our experience with Dr. Eusebio Z. Dizon and the National Museum of the Philippines team in properly requesting the late Mr. Jesus Quizon, mananambay or local medicine man of Amoslog in Placer, Surigao del Norte—out of respect for local customs—to pray to the spirits before entering the Amoslog Cave and five other caves in the Placer mountains during our archaeological exploration in 1991-1994.

In this connection a Mamanwa informant told me and Jun Almeda that a prayer ritual is mandatory to be conducted by a Mamanwababaylan or priestess prior to accessing a cave for scientific verification in Surigao del Norte where old Mamanwa symbols or inscriptions are reported or claimed to be inscribed on the said cave's wall.

May we add that aside from the human remains belonging to what is now known as Escalon Man, the treasure hunter-furniture maker and dealer gave to Jun Almeda for display in the SHC Museo nan Surigao two material artifacts in the form of a stone spearhead and an earthenware jarlet said to have been unearthed together with the Escalon Cave human remains.

Jun Almeda, by that time, had well established the Surigaonon Heritage Center, and kindly provided a room for the Surigao Mini Museum—which started in 1991 as a Nipa Hut Museum in his backyard—in his office as the Port Manager of Surigao.

In that Mini Museum of Surigao in the Port of Surigao managed by Jun Almeda under the Philippine Ports Authority, the human skeleton from the Escalon Cave would be displayed in a glass encasement for public viewing.

When the Surigaonon Heritage Center built in 2000 its present building and then opened the Museo nan Surigao to the general public in 2002, the Escalon Man changed too its display location, becoming accessible for viewing by an ever increasing number of visitors like local schoolchildren and tourists.

In November 2003, Dr. Kyriacos Louca—a retired UNDP (United Nations Development Programme) Greek Cypriot geologist married to a Surigaonon woman who served as the volunteer Curator of the Surigaonon Heritage Center—undertook a scientific geological exploration of the Escalon Cave and presented a report, Preliminary Evaluation of Escalon Cave Prehistoric Findings; Surigao City Province of Surigao Del Norte (Surigao City: Museo nan Surigao, Surigaonon Heritage Center (SHC), Inc., Dec. 2003).

The Louca Report is available in Fernando A. Almeda, Jr., *Story of a Province: Surigao Across the Years* Fifth Edition (Surigao City: Surigaonon Heritage Center with a grant from Rufino Antonio T. Mijares, 2009), pp. 18-26; as well as in [www.surigaoheritage.org](http://www.surigaoheritage.org) which is the official website of the SHC.

Dr. Louca's conclusion reads: "In the light of ... the great significance of the Escalon findings, a multidisciplinary systematic study is strongly warranted, including Radiocarbon-14 (C-14) determinations. The results of such study are crucial and will contribute to the understanding of the development of man in Mindanao Island in the context of the Stone Age human population in the region."

Pursuant to Dr. Louca's recommendation, Jun Almeda in December 2003 wrote and sent to Bauzon at the University of Tsukuba in Tsukuba City, Japan a hard copy of Dr. Louca's report, with his request for assistance in having the Escalon Man scientifically dated.

Being based in Japan at that time, Bauzon initially approached a young Japanese archaeologist with a long experience in undertaking cooperative archaeological work in the Philippines with other archaeologists from Japan as well as from the Philippines.

This Japanese archaeologist told Bauzon that accurate dating could not be done because of the contaminated and dry nature of the human skeleton from the Escalon Cave, having been exposed to contaminants since its unearthing by treasure hunters in the late 1980s.

Moreover, this Japanese archaeologist stated to Bauzon that the dryness of the long-exposed human skeleton from Escalon Cave could not possibly yield any archaeological bone collagen or protein anymore for a productive laboratory analysis.

Bauzon then talked to an American anthropologist teaching in Japan and married to a Japanese archaeologist based in Guam. This American anthropologist told Bauzon however that her husband was too busy with his archaeological projects in the Oceania.

With a strong gut feeling about the Escalon Man's archaeological significance, Jun Almeda was extremely eager to have the Escalon Man subjected to C-15 dating to determine the age of the human remains.

In his eagerness, he even took a tiny bone fragment, and pounded it into powder, then put the powder inside an airmail envelope for mailing to Bauzon via PhilPost so that he could have the powdered bone fragment analyzed in Japan!

However, Bauzon urgently requested Jun Almeda to successfully recall from the Surigao City PhilPost the envelope containing the Escalon Man's powdered bone fragment, telling him that the envelope might get Bauzon into trouble with the Japan Post authorities.

In any case, even if the powdered Escalon Man bone fragment got through to Bauzon at Tsukuba via the Japan Post, the powdered bone fragment would not have served any purpose because the important substance for radiocarbon analysis is the preserved collagen from inside the bone.

Not giving up, because Bauzon likewise believed in the prehistoric significance of the Escalon Cave human skeleton, Bauzon decided to get in touch instead with the internationally eminent biological anthropologist and DNA archaeologist Dr. Keiichi Omoto.

Bauzon said to himself that Dr. Omoto would be personally interested because of his leading edge genetic anthropological research on the Mamanwa of Surigao and Agusan provinces during the ten-year period of 1975-1985.

Up to that time in the Spring of 2005, Bauzon did not know Dr. Omoto personally although he has

heard a lot about him from Jun Almeda since 1985 when Bauzon and Almeda were putting together the PNHS Surigao Conference that year.

Jun Almeda have told Bauzon as early as 1985 about Dr. Omoto's frontier research on the genetic origins of the Mamanwa in the peopling of the Philippines as far back as 50,000 BC, coming from the island of Ceram in Eastern Indonesia.

For example, please see Keiichi Omoto, "The Negritos: Genetic Origins and Microevolution," in Robert Kirk and Eموke Szathmary (eds.), *Out of Asia: Peopling the Americas and the Pacific* (Canberra, Australia: The Journal of Pacific History, 1984, pp. 123-131; and Keiichi Omoto, "Genetic Diversity of Human Populations in Eastern Asia," in M. Kato (ed.), *The Biology of Diversity* (Tokyo, Japan: Springer-Verlag, 1999), pp. 289-299.

Therefore, Bauzon contacted Dr. Keiichi Omoto, Professor Emeritus of Biological Anthropology at the University of Tokyo and at that time connected with The Graduate School for Advanced Studies (SOKENDAI) in Hayama, Kanagawa. Happily, Dr. Omoto readily agreed to meet with Bauzon one nice afternoon in the Spring of 2005 in a hotel coffee shop in Roppongi, Tokyo.

Days and weeks before Bauzon's important meeting with Dr. Omoto, Bauzon sent Dr. Omoto for his background information a copy of Dr. Louca's report, a copy of Bauzon's article "Archaeological Discovery in Surigao," and prints of the pictures of the Escalon Man transmitted to Bauzon by Jun Almeda.

In that highly cordial meeting in Roppongi, Bauzon's long-time friend distinguished Japanese Filipino Dr. Yukiho Asano—a retired political economist from the Institute of Developing Economies in Tokyo specializing in Philippine agrarian reform—accompanied Bauzon.

To make the story short, Dr. Omoto and Bauzon along with Dr. Asano got to know each other in that meeting. Consequently, Dr. Omoto and Bauzon both agreed to travel together at their own expense to Surigao City in the Japanese summer month of July 2005.

Mr. Yoshihiro Shiota, now connected with the Okinawa Polytechnic College in Okinawa prefecture and Bauzon's former student in Southeast Asian Studies in 1994-1997 at the University of Tsukuba, joined us in Surigao City during this field trip.

After we examined the skeleton and visited the cliff cave where the Escalon Man was found along the Escalon River in Cagniog, Surigao City, Dr. Omoto remarked to Bauzon that it was best to study the human skeleton in a proper laboratory.

The travertine rock into which the Escalon Man was embedded had to be removed expertly in a laboratory. Dr. Omoto expressed the view that perhaps the only artifact worth analyzing in a laboratory was the tooth embedded in the same travertine rock wrapped around the rest of the Escalon Man's skeletal remains for nearly three millennia.

On August 4-8, 2015 when Dr. Omoto, Dr. Baba and Dr. Kanazawa travelled to Surigao City for field work, Dr. Baba informed Bauzon that he and Dr. Yoneda precisely removed the travertine rock carefully and skillfully to access the inner part of the bone sample, and successfully obtained the collagen preserved by the travertine rock for radiocarbon age determination.

During that field trip to Surigao del Norte in July 2005, Dr. Omoto and Bauzon identified possible Filipino archaeologists who had the credentials to do the examination of the Escalon Man, even as we took the opportunity to visit Dr. Omoto's old friend Miss Lilia R. Castro and the Mamanwa community in Urbiztondo, Claver which she served as a missionary nurse for half a century.

While recognizing their ability, in the end, we decided that these Filipino archaeologists did not have the state-of-the art laboratory facilities to do a thorough and complete scientific analysis of the Escalon Man.

Moreover, we did not have the grant money to take care of their laboratory expenses in the Philippines, as well as to pay the honorarium of these Filipino archaeologists for their expertise, as we knew they expected us to provide them with funding.

At the end of the day, we decided to pursue the laboratory analysis being done in Japan by properly availing of the ready help of Dr. Omoto, who kindly enlisted the cooperation of Dr. Hisao Baba, Curator of the Anthropology Division of the National Museum of Nature and Science in Ueno, Tokyo.

Jun Almeda subsequently sent to Bauzon in Quezon City through his wife Dr. Luz S. Almeda the human remains of the Escalon Man in Manila. Bauzon duly brought the same as a matter of ethical procedure to the National Museum of the

Philippines in Manila as the primary custodian of our Filipino cultural patrimony.

With the willingly-given assistance of sterling Filipino archaeologist Dr. Mary Jane Louise A. Bolunia, Bauzon secured two permits to export cultural properties, one dated April 21, 2008 and the other dated September 9, 2009, both signed by the then National Museum of the Philippines Director Corazon S. Alvina. Dr. Bolunia selected the specimens for scientific study in Japan.

To avoid costing Bauzon a leg and an arm twice for air cargo, Bauzon requested Japan National Museum of Ethnology in Osaka Graduate University for Advanced Studies Ph.D. candidate in Philippine religious art Miss Yuria Furusawa—the daughter of Bauzon's excellent friend Japanese writer and author Mrs. Mari Furusawa—to hand carry in 2008 the first set of specimens to Dr. Hisao Baba. Miss Furusawa together with her mother kindly delivered to Dr. Baba the first set of specimens.

For the second set of Escalon Man specimens, Bauzon requested bright and talented young Philippine archaeology specialist Dr. Kazuhiko Tanaka of the Jesuit-owned Sophia University in Tokyo to kindly hand carry in 2009 the said second set of specimens for morphological analysis in Japan.

Dr. Omoto had by then contacted his colleagues Dr. Hisao Baba of the National Museum of Nature and Science in Ueno; and who in turn enlisted the expert cooperation of Dr. Minoru Yoneda who was at that time with the Prehistoric Bone Chemistry Laboratory and now with the University Museum of the University of Tokyo for the scientific dating of the Escalon Man.

Furthermore, Dr. Omoto requested Dr. Eisaku Kanazawa, Professor Emeritus of Dental Anthropology at Nihon University and President of Kitahara Gakuin College of Dental Hygiene in Matsudo, Chiba; Dr. Kenichi Shinoda, Chief of the Molecular Anthropology Laboratory of the National Museum of Nature and Science in Tsukuba City, as well as Dr. Hideaki Kanzawa-Kiriyama then of the Ancient Genome Laboratory of The Graduate University for Advanced Studies in Hayama, Kanagawa and Dr. Noburo Adachi of the University of Yamanashi in Chuo City, Yamanashi, to gladly come on board.

In late 2014, with the kind assistance of Dr. Jasmin Jiji Miranda, a Ph.D. holder in molecular biology and a medical doctor practicing in Surigao City, we

obtained one Mamanwa teeth mold for a dental anthropological study.

Additional Mamanwa dental molds would be subsequently secured in August 2015 with the help of Mamanwa teacher Ms. Luzminda J. Caga. These dental molds would be used in the first-ever dental anthropology of the Mamanwa by Dr. Eisaku Kanazawa.

In 1994, Bauzon paid USD5000.00 from Bauzon's Toyota Foundation grant money to the late Prof. Kunihiro Kigoshi of the Gakushuin University Radiocarbon Laboratory in Tokyo—a laboratory directly chosen by the National Museum of the Philippines—for the carbon dating of the Panhutongan Man dated at 140 AD and six other specimens from the open Panhutongan archaeological site.

Dr. Omoto, Dr. Baba, Dr. Yoneda, Dr. Kanazawa, Dr. Shinoda, Dr. Kanazawa-Kiriyama and Dr. Noburo Adachi all generously rendered their scientific laboratory expertise gratis et amore.

The amazing result is the PowerPoint report on The Human Skeletal Remains from Escalon Cave (2015), showing the Escalon Man to be a Neolithic individual possibly a prehistoric Lapita Oceanian who migrated to and existed in Surigao del Norte in 2600 BP.

Earlier, on September 19, 2014, Dr. Omoto presented the scientific results of the laboratory analysis of the Escalon Man during the International Mamanwa Dialogue Symposium in Surigao City.

In November of the same year, Dr. Baba shared the same findings in the 68th Meeting of the Anthropological Society of Nippon on October 31-November 3, 2014 in Hamamatsu, Shizuoka, Japan.

And now we have this equally amazing “Mitochondrial DNA Analysis of the Ancient Bone from Escalon Cave, Mindanao” outcome presented by Dr. Omoto on behalf of the joint authors on October 10-12, 2015 in the 69th Meeting of the Anthropological Society of Nippon (Japan) in Tokyo.

After many years, the Escalon Man would now be scientifically proven to belong to a migratory group of Austronesian speakers originating from maritime Southeast Asia who migrated to the island of Taiwan and from there migrated to the Philippines, with some of these Austronesian migrants moving further to Oceania since about 4000 BC, making the Escalon Man the most important Neolithic Man

discovery in the Philippines in the past half a century since the unearthing of the Neolithic Duyong Man with C-14 dating of 3730 BC in Duyong Cave, Southern Palawan in the 1950s by the National Museum of the Philippines team of the American anthropologist Dr. Robert Fox of the University of Chicago, Illinois, USA.

Significantly, the Duyong Man did not undergo Mitochondrial DNA analysis so we do not know who he was or is, unlike the Neolithic Escalon Man who has been established through the use of the latest and most sophisticated mitochondrial DNA laboratory equipment, as an Austronesian speaker, a precious part of the migratory coming and going of prehistoric Neolithic humans all over Asia, Southeast Asia and the Pacific.

In another significant development, Dr. Kanazawa presented the first-ever dental anthropology of the Mamanwa people during the said 69th Meeting of the Anthropological Society of Nippon on October 10-12, 2015 in Tokyo.

With dedication, commitment and unstinting cooperative spirit, this instant Philippine-Japan scientific team commendably leads the way gratis et amore toward advancing the interest of science and knowledge, especially in shedding light on Asian-Oceanian prehistory and culture. Here we see an exemplary passion by this extraordinary voluntary Philippine-Japan group to promote scholarship, to exalt as well as create new learning, and to push the frontier of, as well as set the agenda for, biological, molecular, anthropological and archaeological research in Asia and Oceania.