

# **The Jomon Culture of Okinawa**

Presentation by Raplee Nobori

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# Acknowledgements

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# KEY WORDS

**Haplogroup** - Family of DNA lineages that descend from a common ancestor and are named with a letter. These groups share particular mutations that reveal geographical origins and migrations of ancestral maternal or paternal lines.

**mtDNA** - Mitochondrial (maternal) DNA is passed from mother to offspring. Females do not have Paternal DNA. Transmission of mtDNA lineages occurs through mothers and daughters.

**Y DNA** - Paternal DNA is passed from father to son. Males carry their mother's mtDNA but cannot pass it on.

**Autosomal DNA** - Traces DNA (including recessive) from both parents. However, accuracy of DNA profile and ethnicity is limited to five generations.

**Ancestry** - Composite or overall DNA inheritance.

**Descendency** - Direct lineage from a specific ancestor with cultural transference.

For example, 90% of African Americans have European DNA ancestry, yet, are not regarded as European descendants. Also, many Hawaiians have diverse ancestries but claim Native Hawaiian descendency because of cultural transference. These diverse ancestries are admixtures that comprise an autosomal DNA profile.

**Admixture** - Combination of different Haplogroup DNA lineages in an individual or ethnic group.

**Assimilation** - Absorbing a different group by making it similar to the dominant group.

**Jomon** - Original inhabitants of Japan and the Ryukyus, who migrated from India 50,000 years ago and settled Northeast Asia (Korea) before crossing over on land bridges 30,000 years ago. Jomon means “cord pattern.” It describes the rope-like patterning on Jomon pottery. Jomon were hunter gatherers, seafaring explorers and fishermen, early potters and lacquerware artisans.

“Jomon” was coined in 1882 by the renowned American zoologist Edward Morse. He discovered pottery fragments while sifting through marine shell middens (ancient garbage dumps) in Japan. Morse is called the “Father of Japanese Archaeology.”

A 2011 DNA study by Takehisa Isemura, a 2020 DNA study by Melissa Yang, et al, and a 2021 DNA study by Yusuke Watanabe and Jun Ohashi found that Jomon DNA came through the Himalayan Mountain range northeast of India - - with no DNA contribution from Southeast Asia. A key discovery in 2015 by Timothy Jinan, et al revealed Jomon DNA having European and Middle Eastern genetic alleles (mutations) associated with facial features.

**Ainu** - Sole surviving ethnic Jomon tribe whose homeland called Ainu encompassed Hokkaido, Sakhalin and Kuril islands. A 2010 DNA study by Hirotaku Matsukusa, et al discovered Y DNA linkage between Ryukyans and Hokkaido Ainu. Ainu means “human” in the Ainuic language. 2019 research by Takashi Gakuhari confirmed that Ainu are direct Jomon descendants with 79% Jomon DNA.

Japan annexed its "foreign frontier" Hokkaido in 1869 and instituted a forced assimilation policy that included: banning the Ainu language, banning hunting and salmon fishing, then populating Hokkaido with Japanese criminals and migrants. Japan eventually designated Hokkaido an official Prefecture in 1947.

**Yayoi** - Korean rice farmers who migrated to Japan around 1,000 B.C. and are the direct ancestors of modern Japanese. Yayoi is a district in Tokyo where burial mounds were excavated in 1884 containing the remains of Korean tribal chieftains with burial artifacts.

**Kofun** - Han Chinese conquerors of Japan and direct ancestors of modern Japanese, who arrived around 250 A.D. and established the Yamato Dynasty, Imperial Family and the first State, or Country, of Japan circa 600 A.D. called Yamato. In 2021, Takashi Gakuhari, et al analyzed genomes from the Yamato Kofun era and discovered 71% Han Chinese DNA.

Kofun means “ancient grave.” These keyhole-shaped mounds interred the Han Chinese Yamato nobility. Horses are not native to Japan, but clay artifacts of Chinese cavalry placed in the Kofun attest to the introduction of horses to Japan circa 400 A.D. by Chinese warriors.

**Dual Structure Model** - A theory proposed in 1991 by Kazuro Hanihara which identified two population subgroups of Japan: an archaic Paleolithic group of Jomon and their Ainu and Ryukyuan descendants, and a new Neolithic group of Koreans in Northeast Asia. Some of the migrant Yayoi Koreans admixed with Jomon, however, Hanihara acknowledged that “Jomon are only partially ancestral to modern Japanese.”

A 2021 DNA study by Naoki Osada and Yosuke Kawai found 10% Jomon DNA in Japanese DNA.

With the 2021 discovery of Han Chinese DNA in the Yamato DNA, Gakuhari unveiled a new “TRIPARTITE” Structure Model with three subpopulations in Japan. This DNA finding finally

corroborates the well-documented archaeological, anthropological and historical records of the Han Chinese intrusion and military conquest of Japan between 250-550 A.D.

Hanihara failed to include the Kofun migration, which his very own 1987 population modeling study estimated at well over a million additional migrants arriving from the Asian continent. Although rice cultivation was significant, the Koreans were an early monoculture with village chieftains. The Han arrived on the scene as one of the world's most advanced civilizations, with a highly stratified society of nobles, military rulers, scholars, priests, warriors, artisans and an underclass of tradespeople, etc. Historian George Kerr describes the Han Yamato as a "well-organized military group," whose legendary emperor Jimmu was supposedly the grandson of the Shinto sun goddess Amaterasu.

Notably, historians often cite an Ainu saying that the people of the sun (Japanese) have been in Japan for a 1,000 years, while the Ainu (Jomon) have been in Japan for a 100,000 years. Modern Japan was founded by the Han Yamato, who assimilated the Koreans and invented a new Nihonjin cultural identity in the era of common existence, or C.E.

**South Asia** - The Indian subcontinent of Pakistan, India and Bangladesh.



**Southeast Asia** - Countries that form a natural southern border with China; extending from Myanmar to Vietnam, and also including island groups

**Austronesian** - Indigenous people of Southeast Asia. Research by Mark Hudson in 1996 and 2012 confirmed that there is no evidence of prehistoric settlements in Okinawa and Japan by Southeast Asians in the archaeological record.

**Japonic** - A category of languages spoken in Japan and the Ryukyus whose origins are unknown. But, linguists agree that Uchinaaguchi is a proto – or pre – Japanese language with clues to understanding the ancient language of Japan. The languages split around 400 B.C. with the influx of Korean speakers, and around 500 A.D. when the Chinese-speaking Yamato assimilated the Koreans and created a new shared language called Nihongo. The Austronesian influences in the Yayoi language resulted from early agricultural contacts in southern China and Southeast Asia, where they first emerged.

# Ancient Jomon of Japan

JUNKO HABU



CAMBRIDGE

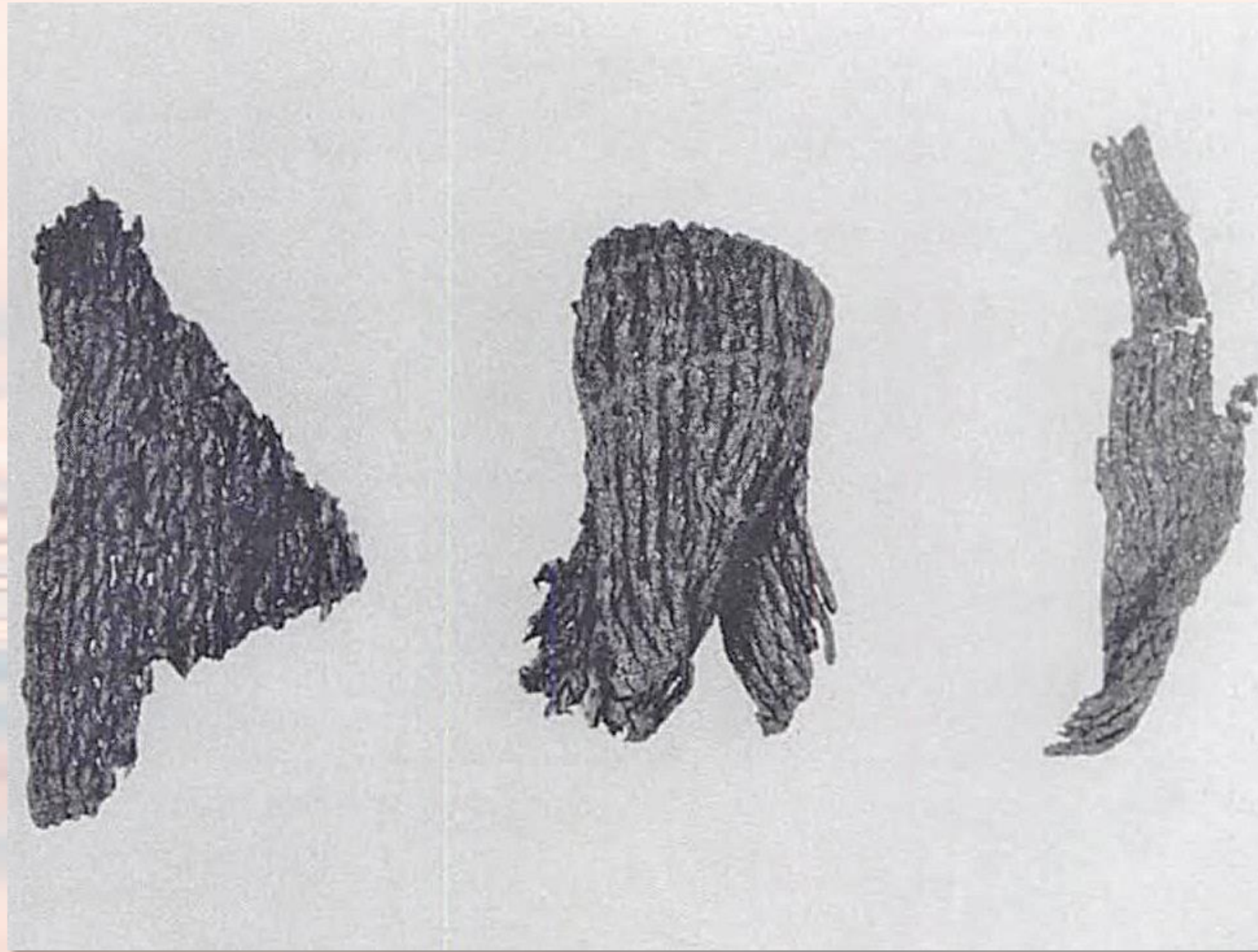
Jomon “fire flame” style  
pottery circa 3,000 B.C.

**JOMON POTTERY:**  
 chronology, region  
 and typology

Region		HOKKAI-DO	TOHOKU	KANTO	CHUBU	HOKURIKU TOKAI	KINKI CHUGOKU SHIKOKU	KYUSHU	
Subperiod									
2300 (bp)	FINAL	Nusamai				Appliqué net ware			
		Totsuryumon	Kamegaoka	Maeura	Angyo	Sano	Hokuriku Final	Tottaimon	
3000	LATE	Knobbed ware					Osenmon	Black burnished	
		Horinouchi/Kasori B						Entaimon	Isso
4000	MIDDLE	Hokuto	Togoshinai			Sanjuinaba	Shomyoji		Ichiki
		Ento		Daigi	Otamadai	Katsusaka	Daigi	Kushida	Ataka
5000	EARLY			Ukishima	Jusanbodai		Funamoto/Satogi	Sobata	
		Early Hokkaido Oshigatamon	Daigi		Moroiso	Kita-shirakawa		Todoroki	
6000	INITIAL	Jomon Pointed base	Jokonmon			Kijima	Senokan		
		Higashikushro	Shell-incised		Oshigatamon				Shell-incised
9500	INCIP- IENT	Oshigatamon		Yoriitomon					
		Cordmarked							
		Nail-impressed							
12,000		Linear-relief							



*Lacquered artifacts: basket, wooden combs and bracelets*



*Three fragments of fabric made of twisted warp*

## Morphology Of Fossils

Jomon traits (right): High brow ridge, deep-set eyes, tall nose, squared forehead, rectangular face, prominent lower cheekbones.



23andMe Paternal DNA Ancestry Report  
0-F1204 Haplogroup

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- **275,000 Years Ago Haplogroup A**

The stories of all of our paternal lines can be traced back over 275,000 years to just one man: the common ancestor of haplogroup A. Current evidence suggests he was one of thousands of men who lived in eastern Africa at the time. However, while his male-line descendants passed down their Y chromosomes generation after generation, the lineages from the other men died out. Over time his lineage alone gave rise to all other haplogroups that exist today.

- **76,000 Years Ago Haplogroup F-M89**

For more than 100,000 years, your paternal-line ancestors gradually moved north, following available prey and resources as a shifting climate made new routes hospitable and sealed off others. Then, around 60,000 years ago, a small group ventured across the Red Sea and deeper into southwest Asia. Your ancestors were among these men, and the next step in their story is marked by the rise of haplogroup F-M89 in the Arabian Peninsula.

- **53,000 Years Ago Haplogroup K-M9**

Passing through the Middle East, your paternal-line ancestors continued on to the steppes of Central Asia, vast grasslands stretching all the way from central Europe to the eastern edge of Asia. From its origin in the western steppes nearly 50,000 years ago, haplogroup K-M9 spread across most of the globe. In fact, nearly half of all paternal lineages outside of Africa are branches of haplogroup K.

- **45,000 Years Ago Haplogroup O-M1359**

While some men turned *west*, your ancestors continued heading east. The man who gave rise to haplogroup O-M1359 likely lived in eastern Asia about 45,000 years ago. For thousands of generations, his descendants have stayed in east Asia where they have become the majority of the Han Chinese, Japanese, and Taiwanese. One late migration carried haplogroup O men all the way to Madagascar.

- **30,000 Years Ago Haplogroup O-M268**

Your paternal lineage stems from haplogroup O-M268, a major branch within haplogroup O. Haplogroup O is one of the world's largest paternal lineages, comprising over 25% of all men. In fact, haplogroup O is the predominant haplogroup in Asia. This widespread lineage originated in East Asia 38,000-45,000 years ago, and later spread into Taiwan, Indonesia, Melanesia, Micronesia, and Polynesia. By contrast, haplogroup O1-P31 is slightly younger, and slightly less widespread, than haplogroup O. Haplogroup O-M268 likely arose 29,000-34,000 years ago in East Asia (perhaps southern China), where it is nearly exclusively found today.

Within East Asia, O-M268 is more dispersed than the other branches of haplogroup O. It likely originated in southeastern Asia but expanded into India to the west and Japan and Siberia to the north. One of its branches is common in southeastern Asia and Indonesia. The other is found among the Japanese, Koreans and the Manchus of northeastern China. Almost a third of Japanese men carry O-M268, which probably expanded during the Yayoi migration of agricultural groups from the Korean peninsula to Japan about 2,300 years ago.

- **< 30,000 Years Ago Haplogroup O-F1204**

Your paternal haplogroup, O-F1204, traces back to a man who lived less than 30,000 years ago. That's nearly 1200 generations ago! What happened between then and now? As researchers and citizen scientists discover more about your haplogroup, new details may be added to the story of your paternal line.

## **Today Haplogroup O-F1204**

### **YOUR HAPLOGROUP ENTERED JAPAN WITH THE YAYOI EXPANSION.**

Your haplogroup, a branch of haplogroup O, is closely related to several haplogroups that are commonly found in Japan. Haplogroup O is closely associated with Kyushu, Japan's third largest island, and makes up over half of all men in Japan. Although haplogroup O is prevalent in Japan, it likely only entered Japan during the Yayoi expansion about 2,300 years ago.

During the Yayoi expansion, people entering from the Korean Peninsula brought wet rice agriculture, weaving technology, and metalworking technology to Japan. The Yayoi expansion began on the island of Kyushu, where haplogroup O is very common today. It is possible that some of the early members of O 1-F3356 were involved in this major shift, which quickly and dramatically altered Japanese culture.

23andMe Maternal DNA Ancestry Report  
M7b2 Haplogroup

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- **180,000 Years Ago Haplogroup L**

If every person living today could trace his or her maternal line back over thousands of generations, all of our lines would meet at a single woman who lived in eastern Africa between 150,000 and 200,000 years ago. Though she was one of perhaps thousands of women alive at the time, only the diverse branches of her haplogroup have survived to today. The story of your maternal line begins with her.

- **65,000 Years Ago Haplogroup L3**

Your branch of L is haplogroup L3, which arose from a woman who likely lived in eastern Africa between 60,000 and 70,000 years ago. While many of her descendants remained in Africa, one small group ventured east across the Red Sea, likely across the narrow Bab-el-Mandeb into the tip of the Arabian Peninsula.

- **50,000 Years Ago Haplogroup M**

Beyond Africa, your maternal-line story can be traced through haplogroup M. M is one of two branches that split from L3 soon after humans first expanded out of Africa. Over the 50,000 years since the branch's rise, members of haplogroup M have ventured far and wide in southern and eastern Asia, where many diverse branches split off, many of which are major haplogroups in their own right.

- **45,000 Years Ago Haplogroup M7**

Haplogroup M7 is an older branch of M that traces back to a woman who lived nearly 45,000 years ago. She likely lived among the first migrants to reach eastern Asia. Her descendants are abundant in the region today, reaching levels of 36% among the Ryukyans, an indigenous population living on an island chain that links Japan and Taiwan. It is also common among the Ainu, an indigenous group from the northern Japanese island of Hokkaido. One branch of the haplogroup, M7c, reaches levels of nearly 20% in the Philippines and some Pacific Islands.

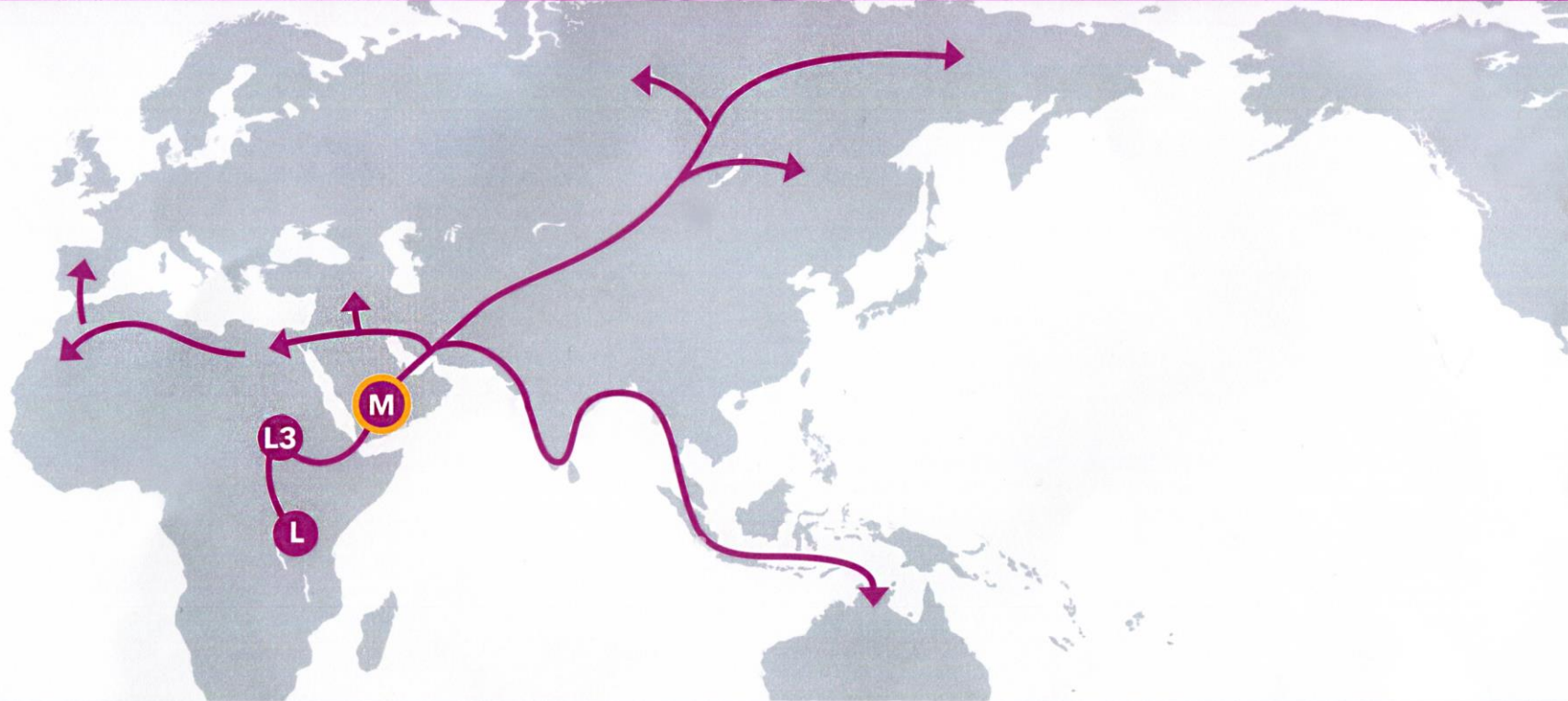
The distribution of one branch, M7a, among indigenous populations suggests that the country's first inhabitants, who arrived just over 30,000 years ago, came from the Korean peninsula to the southern part of Japan. Japan and Korea were connected by a land bridge at the time because sea levels were lower than they are today, a result of the increased size of the polar ice sheets.

- **7,000 Years Ago Haplogroup M7b2**

Your maternal haplogroup, M7b2, traces back to a woman who lived approximately 7,000 years ago. That's nearly 280 generations ago! What happened between then and now? As researchers and citizen scientists discover more about your haplogroup, new details may be added to the story of your maternal line.

## MATERNAL HAPLOGROUP

Raplee, your maternal haplogroup is **M7b2**.



### WHAT IS A MATERNAL HAPLOGROUP?

As our ancestors ventured out of eastern Africa, they branched off in diverse groups that crossed and recrossed the globe over tens of thousands of years. Your maternal haplogroup can reveal the path followed by the women of your maternal line.

## THE HIGHEST DIVERSITY OF M HAPLOGROUPS IS FOUND IN INDIA.

While Haplogroup M is widespread throughout South and East Asia, it is more diverse on the Indian subcontinent than anywhere else in the world. The high degree of diversity of M in India is likely tied to its ancient arrival here nearly 50,000 years ago. In addition to M2, which is found throughout the subcontinent, there are dozens of haplogroups branching off of M that exist in India. These branches are often connected to specific regions, tribes, or ethnic groups.

For example, haplogroup M18 is found among the Oraon peoples of eastern India and Bangladesh, while haplogroup M41 is common among the Pardhan speakers of eastern India, and haplogroup M31a can be found on the Andaman Islands, just off the southeast coast of India.

**PICTURED RIGHT:** These women of Jodhpur belong to a spectacular diversity of maternal lineages that trace back to haplogroup M.

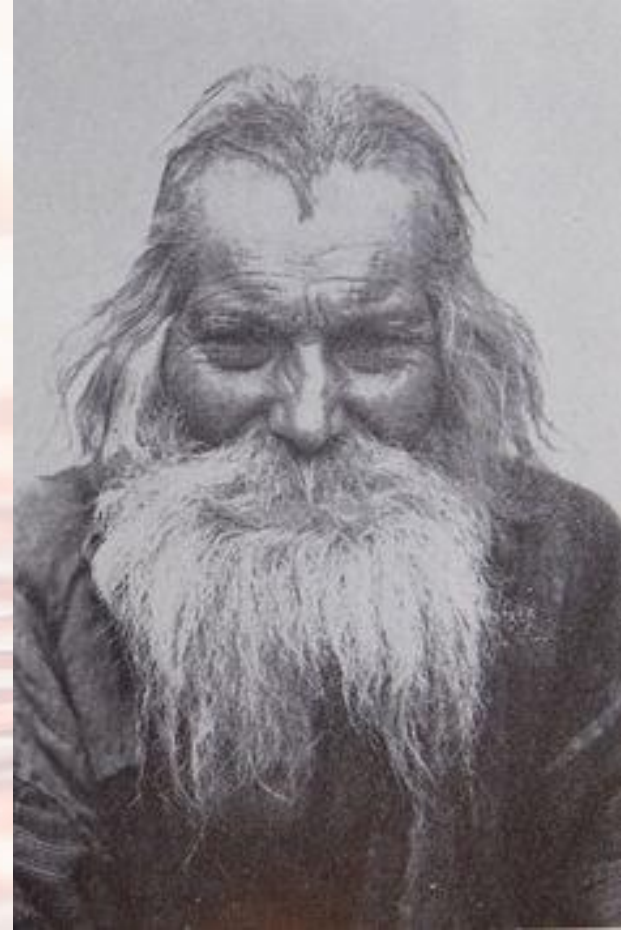




A Japanese drawing of an old Ainu warrior.



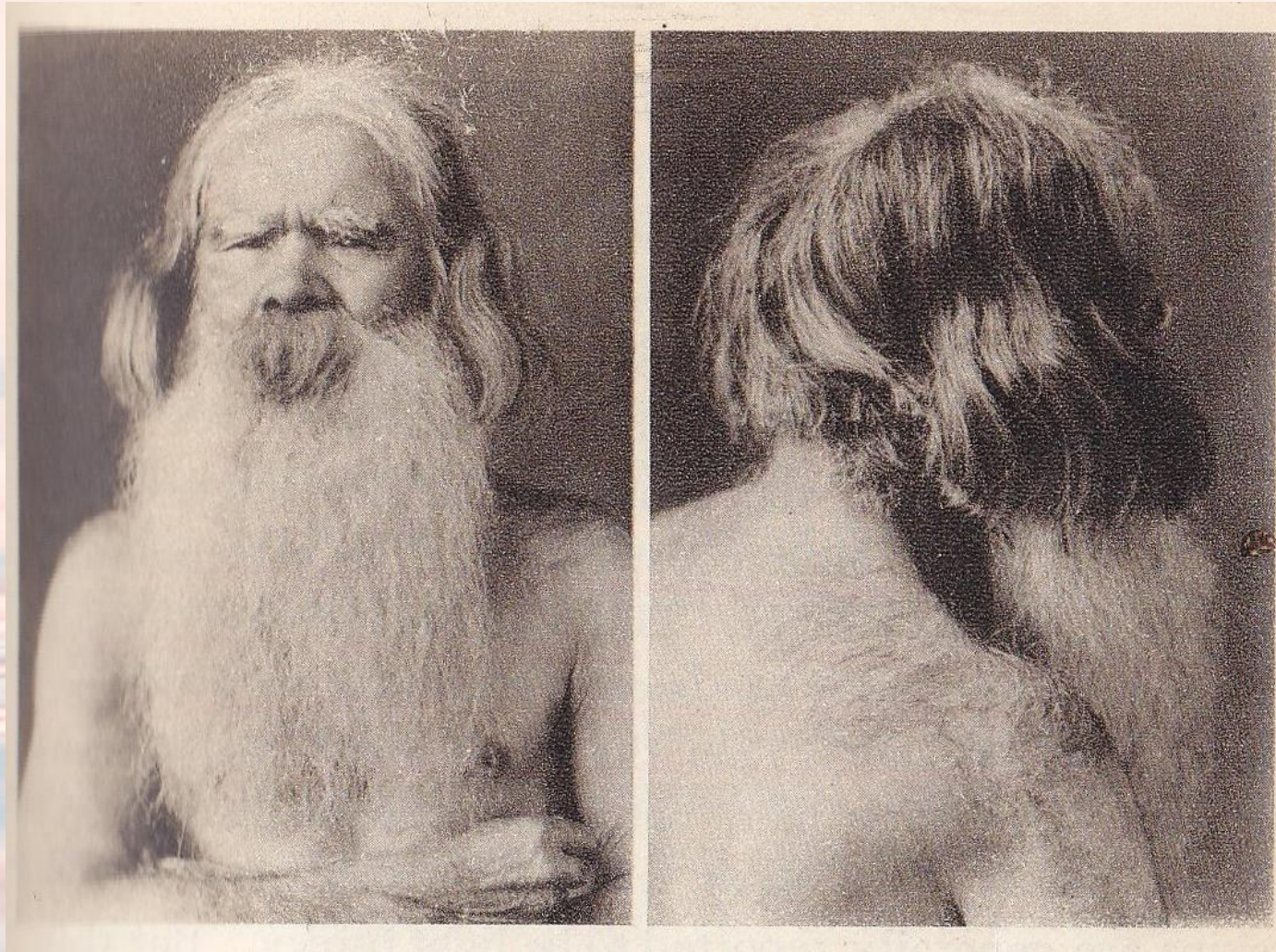
# Unassimilated Ainu Jomon of Hokkaido



Photos of Hokkaido Jomon reveal what Okinawa Jomon looked like prior to Japanese assimilation. A 2010 study by Hirotaku Matsukusa, et al found that the Y DNA of Ryukyuan share common linkage with Hokkaido Ainu.



A 2015 DNA study by Timothy Jinan, et al discovered that Jomon have genetic alleles of European and Middle Easterners associated with facial features. Several 16<sup>th</sup> century Portuguese historical accounts described Ryukyuan seafarers as “white” because of their Jomon appearance.



The hairiness of Okinawans is a Jomon DNA physical trait. Early anthropologists described Ainu as the hairiest ethnic group. Hawaii lore attributed Uchinanchu hairiness to "500 shipwrecked Portuguese sailors who brought malasadas to Okinawa".

Ainu Hunter Warrior. Truly magnificent photo.  
Traditional Ainu fabric called "attush" was  
made from the inner bark of elm trees.





Physical traits of India, Middle East and Europe.



Traditional Ainu fabric motifs incorporated embroidery stitching. An Ainu staple is “muk,” a purple potato. Their principal deity is the fire goddess Fuji. Okinawans worshipped the Noro fire god of the hearth.



Jomon were skilled archers who warred against the Japanese. The 701 A.D. Chronicles of Japan documented a Yamato military campaign in Kyushu against the Jomon who were led by female chieftains.





Ainu have 79% Jomon DNA according to 2019 research by Takashi Gakuhari. They also have admixtures from Siberian and Kamchatkan peoples.

Young Ainu circa 1960s.  
Ainu called themselves  
“people of the same  
socket-eyes.”



Ainu Woman. Tattooing of women is a Jomon practice noted in 57 A.D. Chinese annals. Ainu regarded tattoos as a sign of status and beauty. Okinawan women continued this tradition until the early 1900s.



7,000 years and 4,600 miles

Jomon Uchinanchu in Hawaii

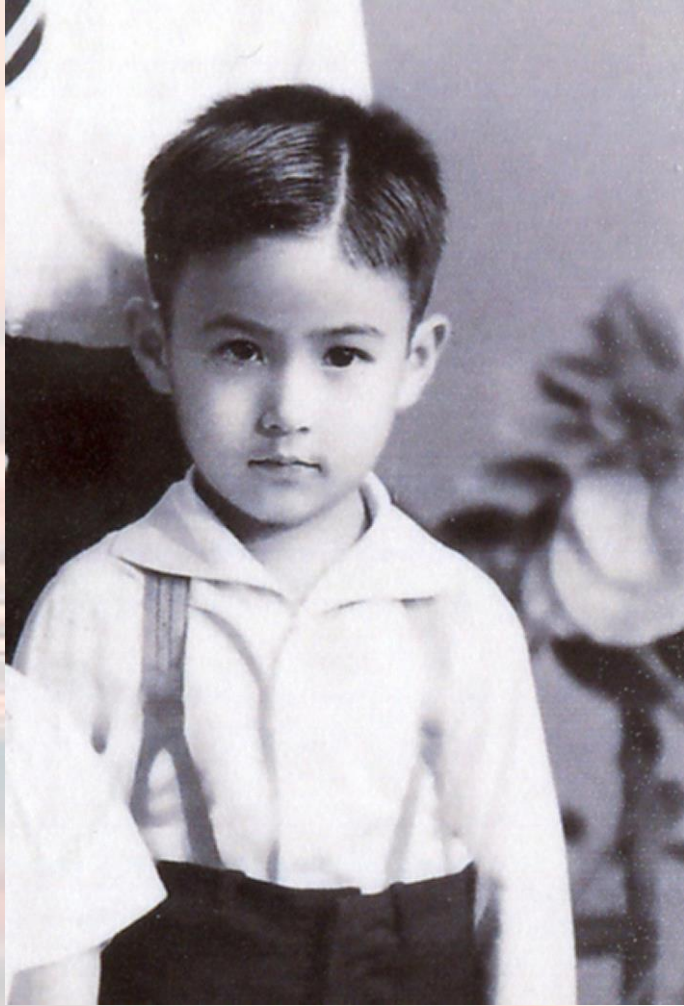


Makato (Ma-kah-tu') and grandson Raplee at HUOA annual picnic (left). Raplee circa 1957 (right). In "The Okinawan - Naichi Relationship," Kiyoshi Ikeda and Henry Toyama quoted remarks by an Issei Japanese that some Okinawans "look like Malaysians or Filipinos" and some "look like Haole."



Mom Kay with high school friends.





Uncle Archie.





Mom with sisters Lily (left) and Gayle (right).

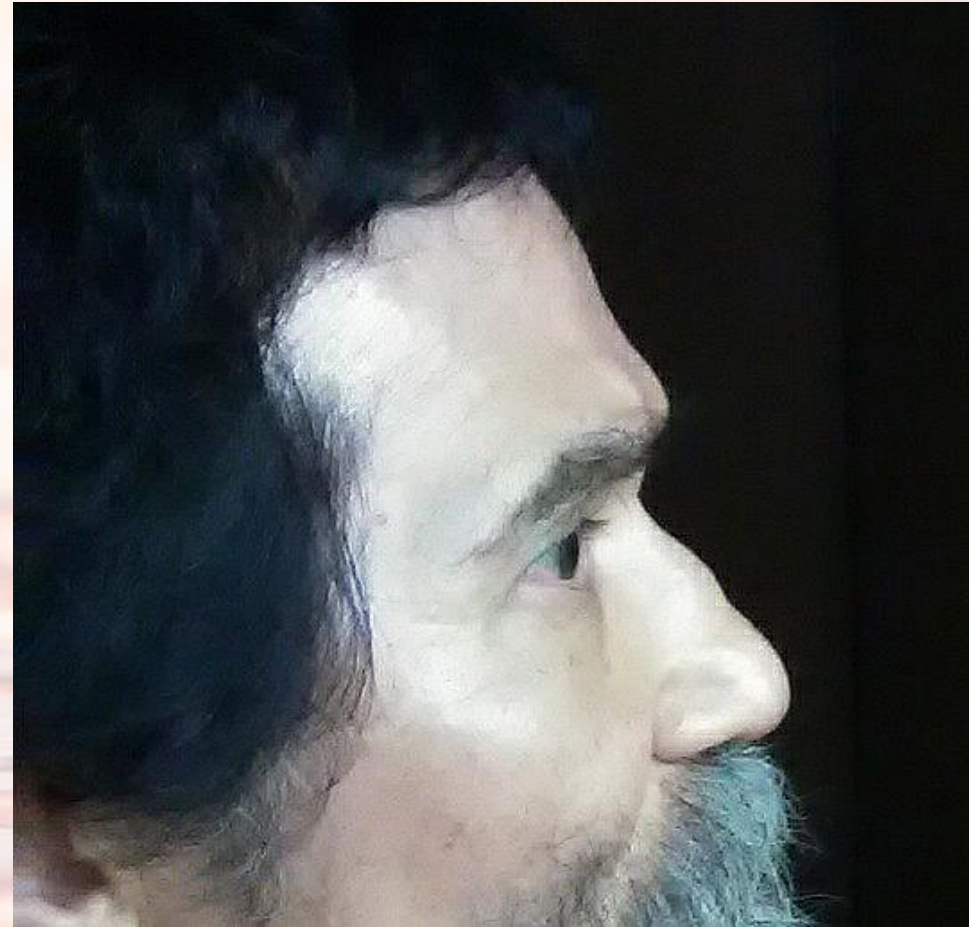


Sisters Dorraine (left) and Sharman (right).

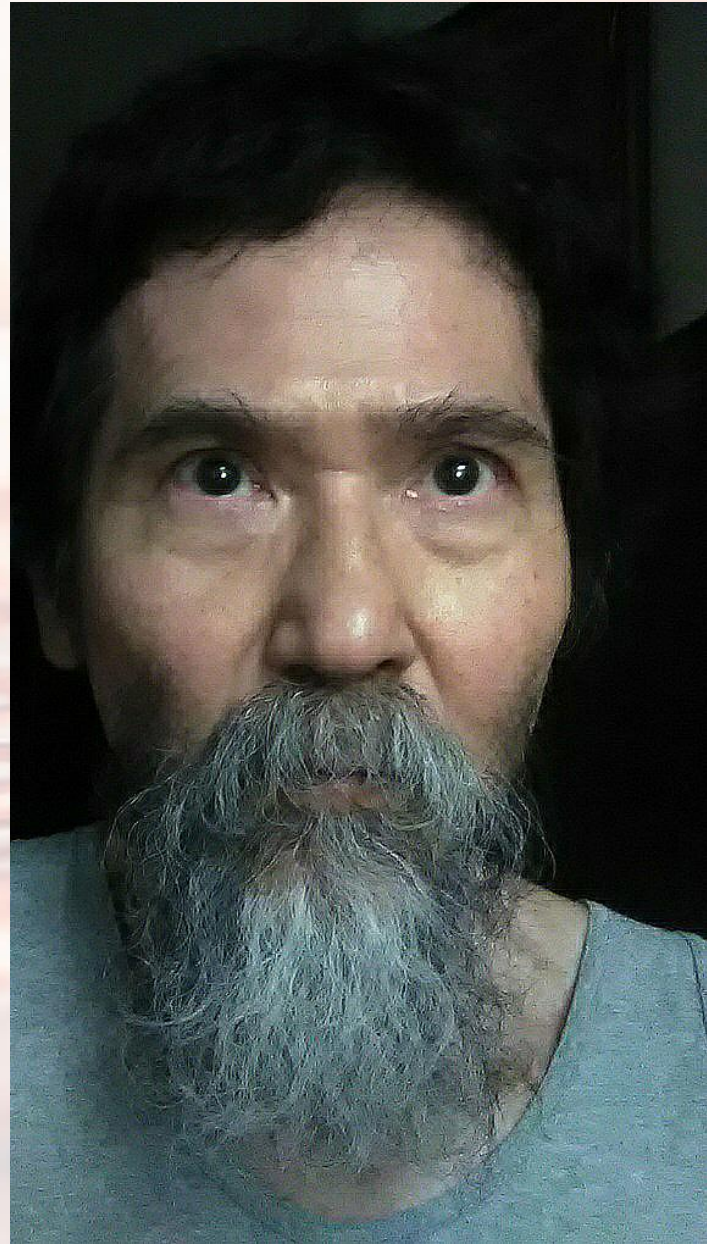
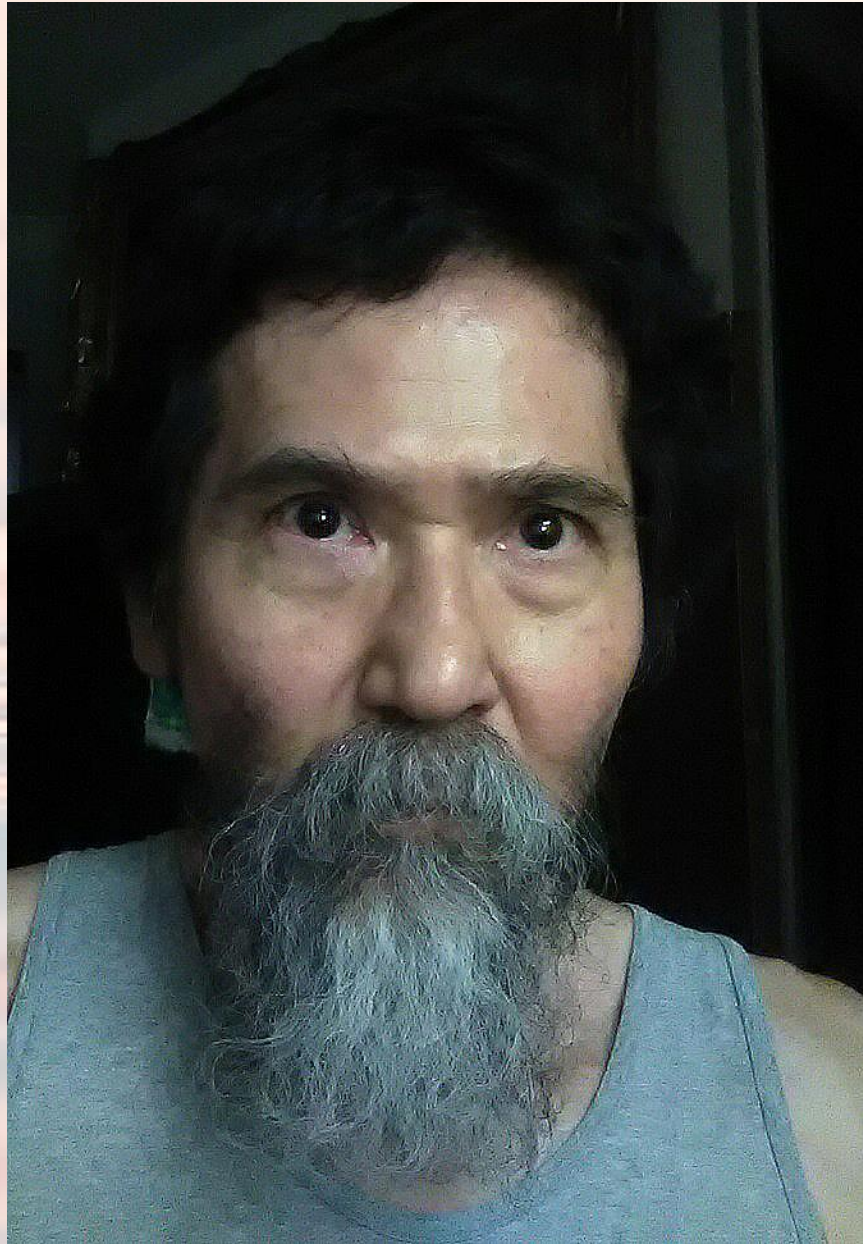


Mom and parents Taketa (left)  
Makato (right).



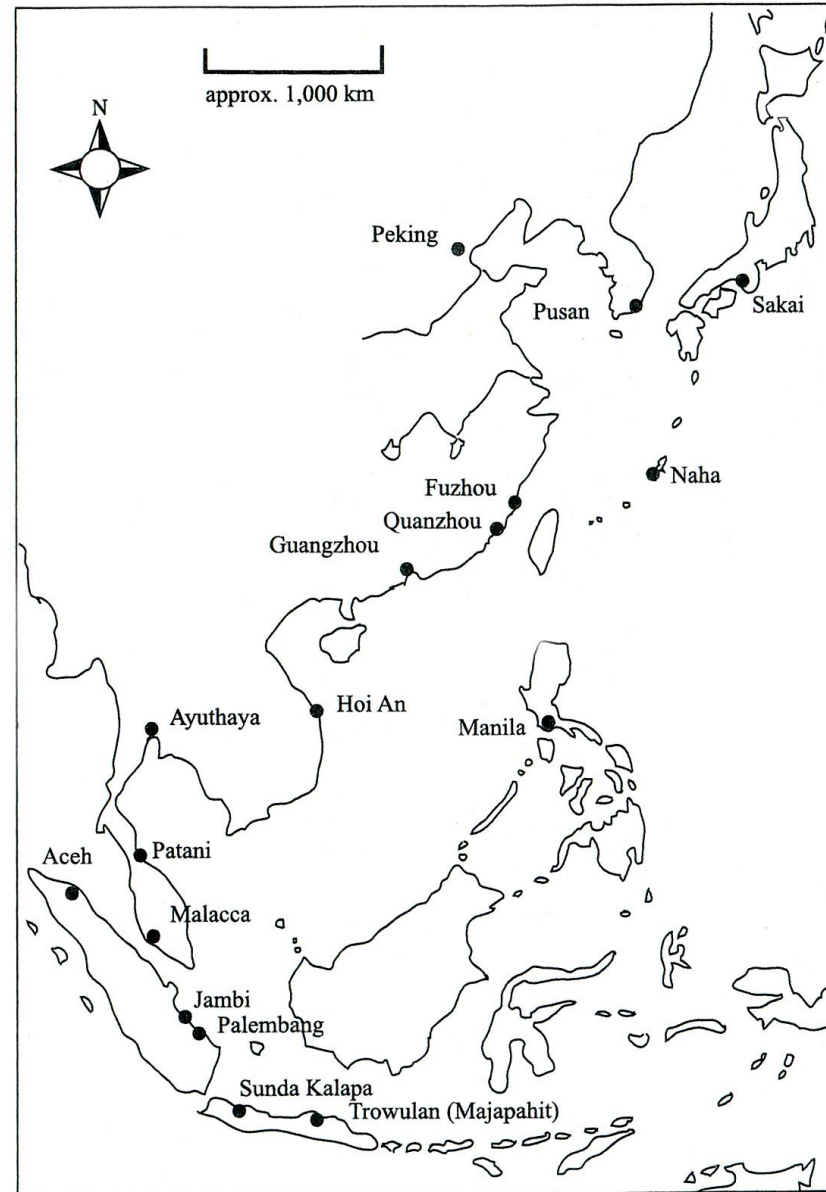


Raplee has 51.3% Jomon DNA. Photos were taken during the 2021 Covid-19 lockdown.



## Trade Routes of Ryukyu Maritime Kingdom

Jomon oceanic navigation, exploration and settlements extended 3,000 miles from Sakhalin to the Philippines, where the M7c Jomon presence provided Okinawa Jomon the opportunity to explore and establish trade relations in Southeast Asia.



# The Jomon Culture of Okinawa

## Jomon History

Okinawa settlements established by Kyushu Jomon from 6,000 to 2,000 B.C.

Archaeologist Richard Pearson

Ryukyuan culture is a Jomon population with medieval Japan intrusion.

Anthropologist Naomi Doi, "History of Okinawa, Ko Ryukyu," 2010.

Ryukyuan culture is a subtropical variant of Jomon culture.

Archaeologist Shinji Ito, *Basic Study of the Ryukyu Jomon Culture*, 2000.

Minatogawa Fossils were found in Okinawa dating to 18,000 years ago. However, the remains were found among animal bones in a pit without any associated cultural artifacts or habitation site. 2021 research by Fuzuki Mizuno, et al said that Minato DNA is not directly related to – or a direct ancestor of – either Jomon, Koreans, or Japanese; but belongs at the “root” of Haplogroup M, a basal (base) ancestral population in Arabia that branched off in India 50,000 years ago.

Unfortunately, the Minato find is an archaeological dead end in the historical peopling of Okinawa.

## **Language**

Uchinaaguchi comes from the ancient language of the Kyushu Jomon: the native people of Okinawa.

## **Noro Religion**

The Noro priestess is a "living fossil of a prehistoric age."

Historian George Kerr

Jomon fire god worship: The fire goddess Fuji was the principal intercessor deity that Ainu prayed to daily, while Okinawans worshipped the fire god of the hearth.

Noro chants and rituals preserved the ancient oral history of the Jomon oceanic migration that brought fire to Okinawa.

Noro ritual chants were the inspiration for Omoro Soshi chanted poems.

The Noro matriarchal hierarchy reflected the Neolithic pre-agricultural society of the Jomon "queen" Countries.



## Navigation, Exploration, Trade

"The adaptive advantage that allowed human groups to colonize the islands may have been new knowledge and skills such as mastery of navigation and understanding of wind patterns."

Archaeologist Richard Pearson

As late as the 16th century several Portuguese historical accounts described Ryukyuan seafarers as white men because of their Jomon features.

Historical records of 16<sup>th</sup> century Portuguese diplomat Tome Pires described Ryukyuan seafarers as "white men." Duarte Barbosa (cousin of Magellan) said Ryukyuan were "certain white folk."

Historian Mitsugu Sakihara

Dominican priest Gaspar Da Cruz said Ryukyuan were "a well-disposed people more to the white than brown."

Historian George Kerr

Jomon navigational skills and knowledge were highly specialized. In traditional cultures worldwide, specialized trades were kept within families and passed down from fathers to sons. Ryukyuan seafarers would have simultaneously passed down their Jomon Y DNA along with their family navigational traditions.

M7c Jomon DNA is found in 20% of Filipinos (23andMe DNA report), which is a significant figure given the distance from the Japan Jomon homeland. This indicates large Jomon settlements over millennia. Furthermore, the letter "c" designates a later branch that would have passed through Okinawa enroute to Southeast Asia. Because Okinawa Jomon were in continual contact with Kyushu Jomon over millennia, we can assume that Okinawa and Philippine Jomon were also in continual contact.

It is my belief that the "moral race-characteristic" of Okinawans, "their gentleness of spirit and manner...their hospitality and kindness" that was discussed by Napoleon Bonaparte, and quoted by Kerr, was cultivated over millennia by Jomon maritime exploration and trade with diverse cultures throughout Southeast Asia. Jomon settlements in the Philippines provided a safe harbor in a centralized hub between Thailand, Vietnam, Malaysia, Sumatra, Java and the Spice Islands (Moluccas).

# Tattoo

Ainu tattooing of women conferred status and beauty. The lip tattoo represented women saying good things about their husbands and involved a painful, intricate, yet artistic process requiring multiple sessions over the years.

Anthropologists John Batchelor and Inez Hilger

The Jomon tradition of exclusively tattooing women was practiced by both the Ainu and Uchinanchu. Tattoo was a sign of status and beauty, as women's blackened teeth were for the Japanese, which disproves the myth that the Uchinanchu tattoo was designed to prevent samurai abduction.

Uchinanchu tattoo continued centuries after the 1609 conquest of Okinawa and long after the samurai demise. The intricacies of geometric tattoo patterns were artistic and confined to the hands and arms. To mar a woman's beauty, facial tattoo would have been practiced since it would be immediately noticeable. Moreover, simple blotches on the hands would have been quicker, less painful and more frightening to the samurai as a symptom of deadly diseases.

Unfortunately, Uchinanchu cultural history has long been interpreted from the biases of western and Japanese world views.

## **Hunter Gatherers**

The propensity for pork and potato in the traditional Uchinanchu diet persisted despite the late introduction of agriculture and rice cultivation in 800 A.D. by Japanese farmers. The Jomon hunter gatherer ethos of the Uchinanchu cultural identity is firmly rooted and deeply ingrained.

## **Popular Culture**

Finally, although Jomon hairiness is not specifically a cultural element, it found its own way into popular culture at the Hawaii Okinawan Festival “Hairy Chest Contest.”

# Concluding Thoughts

The Jomon were the cultural wellspring of Okinawa. Their foundational imprint was impervious, and resilient against diverse foreign influences, forces and intrusions. Thus, Okinawan Culture retained its defining characteristic: A unique Uchinanchu identity as Jomon descendants.

The Okinawan never became a Japanese.

On the contrary, in Okinawa, all of the Naichijin became Uchinanchu.

With 7,000 years of Jomon Culture in Okinawa, the ancient collective memories of the priestess, "Keepers of the Flame," kept the hearth fires lit in Noro Okinawa.

It cannot be extinguished.

Like the Noro priestess, I am a "living fossil of a prehistoric age" still walking the face of the Earth. My ancestral Jomon Baban lived 7,000 years ago, and her (our) DNA ancestors lived 50,000 years ago in India.

We are still here.