

AI Training Portfolio — Case Study on Taíno Social Structure

Project Summary

Led the design and refinement of a neutral, verifiable LLM prompt comparing colonial-era Spanish chronicler accounts and modern archaeological interpretations of Taíno social structure at the time of European contact. Enhanced the prompt for chronological clarity, specific historical examples (such as named chiefdoms and female leaders), and explicit uncertainties about governance and gender dynamics. Verified all content against academic sources from the Florida Museum of Natural History, Yale Teachers Institute, the British Academy, the University of Connecticut, and academically cited Wikipedia. Produced bilingual outputs (English/Spanish), editorial rationale, a verified research brief, an annotation table, and final translations. Demonstrating transferable skills in AI training, fact-checking, neutrality, and cross-cultural communication.

Skills Applied

- **Prompt Engineering & Refinement** – Created chronological, multi-perspective prompts with historical specificity.
- **Fact-Checking & Source Verification** – Used only academic and museum sources with no fabricated citations.
- **Bias Control** – Balanced colonial and modern interpretations without taking a stance.
- **Safety & Compliance Awareness** – Flagged interpretive uncertainties and avoided speculative claims.
- **Bilingual Communication** – Delivered outputs in English and Spanish for broad accessibility.
- **Structured Research Output** – Produced a research brief, annotation table, and verified source log.

WS1 — Prompt v1 + Evaluation + Prompt v2

I developed and refined these prompts to train an LLM (ChatGPT 5.0 Model) on producing a balanced comparison between colonial-era Spanish chronicler accounts and modern archaeological interpretations of Taíno social structure. The objective was to ensure historical accuracy, chronological clarity, and inclusion of explicit uncertainty lines for critical thinking.

Prompt v1 (colonial vs modern perspectives)

Prompt v1: Write a balanced comparison (≈180 words) of two mainstream perspectives on Taíno social structure. One should reflect colonial-era Spanish chroniclers like Bartolomé de las Casas, who described a largely peaceful, hierarchical society with a paramount cacique and clearly defined classes of nitaínos (nobility), bohiques (priests) and naborías (commoners) teachersinstitute.yale.edu. The other should reflect modern archaeological and anthropological interpretations, which emphasize matrilineal kinship, regional variation and adaptive strategies floridamuseum.ufl.edu. Include context about European contact (late 15th century), note that women could be caciques floridamuseum.ufl.edu and that communities farmed conucos for manioc and other root crops floridamuseum.ufl.edu. End the prompt by asking the AI to summarize uncertainties or debates about Taíno governance.

Simulated answer to Prompt v1

Simulated answer: The Spanish chroniclers portrayed Taíno society as orderly and benign. They described five large chiefdoms led by caciques who inherited power through their mother's lineage and were carried on litters, wearing guanín disks teachersinstitute.yale.edu. Below the paramount chief were the nitaínos, who oversaw labor and trade, the bohiques, who performed spiritual and healing roles, and the naborías, the working

farmersfloridamuseum.ufl.edu. Accounts stressed peacefulness and clear hierarchy, though women were sometimes mentioned as chiefteachersinstitute.yale.edu. Modern archaeologists agree that society was stratified but argue that the chroniclers oversimplified it. Excavations at En Bas Saline and other sites reveal matrilineal inheritancefloridamuseum.ufl.edu, conucos used for cassava cultivationfloridamuseum.ufl.edu and evidence of regional diversity; some villages may have been more autonomous than Spanish sources suggest. Researchers also highlight the agency of women and the flexible gender roles in farming, trade and warfarefloridamuseum.ufl.edu. Today there is debate over how centralized the chiefdoms were and how political power changed after contact.

Evaluation of the simulated answer (1 = poor, 5 = excellent)

Criterion	Score	Notes
Accuracy	4	Uses correct classes (cacique, nitaíno, bohique, naboría) and mentions matrilineal succession and conucos; could include more nuance on regional chiefdoms.
Balance	4	Presents both colonial and modern views but could further separate biases.
Clarity	5	Clear structure and explanation.
Tone	5	Neutral, informative tone.
Constraints	5	Stays within length and cites key facts; ends with uncertainties.

Prompt v2 (improved)

I revised the initial prompt based on evaluation results, adding named chiefdoms, examples of female rulers, chronological ordering, and a requirement for at least two uncertainty lines.

Prompt v2: Compose a chronological comparison (~200 words) of two mainstream views on Taíno social organization. Begin with late-fifteenth-century Spanish chronicles, noting that Columbus' men described five chiefdoms (Marién, Maguá, Maguana, Jaragua and Higüey) each ruled by a cacique who inherited power through his sister's sonteachersinstitute.yale.eduen.wikipedia.org. Explain that chroniclers such as de las Casas characterized society as peaceful and clearly stratified into caciques, nitaínos (nobles/warriors), bohiques (spiritual healers) and naborías (farmers)teachersinstitute.yale.edu. Mention examples of female rulers like Anacaona and Luisateachersinstitute.yale.edu. Then contrast this with twentieth- and twenty-first-century archaeology, which interprets En Bas Saline and other sites as evidence of matrilineal chiefdoms with regional diversityfloridamuseum.ufl.edu. Highlight conuco agriculture—raised mounds for manioc and root cropsfloridamuseum.ufl.edu—and emphasize that gender roles were flexible; both women and men farmed, traded and even foughtfloridamuseum.ufl.edu. Close by asking the AI to discuss at least two uncertainties about how centralized the chiefdoms were and how gender power dynamics evolved after European contact.

Simulated answer to Prompt v2

Simulated answer: According to late-fifteenth-century Spanish accounts, Hispaniola was divided into the chiefdoms of Marién, Maguá, Maguana, Jaragua and Higüey, each headed by a cacique whose successor was usually his sister's sonen.wikipedia.orgteachersinstitute.yale.edu. Chroniclers portrayed a peaceful hierarchy:

caciques wore guanín medallions and sat on caneyas while nitaínos supervised labor and warfare, bohiques conducted spiritual ceremonies, and naborías tended conucos and fisheries teachersinstitute.yale.edu. They noted notable female chiefs such as Anacaona and Luisateachersinstitute.yale.edu but generally depicted male leadership. Modern archaeologists working at En Bas Saline argue that these narratives underplay diversity. Evidence of matrilineal descent, multiple regional chiefs and houses of differing sizes suggests varying degrees of centralization floridamuseum.ufl.edu. Conuco agriculture, involving raised mounds for manioc, beans and peanuts, shows intensive land use and cooperative labor floridamuseum.ufl.edu. Gender roles were less rigid than Spanish observers implied; women could be caciques, farmed alongside men and sometimes joined in warfare floridamuseum.ufl.edu. Uncertainties remain about the extent of political autonomy among villages and how leadership and gender power were transformed by epidemic disease and colonial violence.

Reflection

The second prompt is more specific and chronological. It grounds the colonial perspective in the 1492–1500 period and names the five chiefdoms, adds examples like Anacaona, and clarifies matrilineal succession. The simulated answer to Prompt v2 benefits from these details, making the contrasts clearer and placing conucos and gender roles within context. Including two explicit uncertainty lines encourages critical thinking. However, without direct access to all archival materials, both prompts rely heavily on secondary interpretations and may still oversimplify regional diversity.

WS2 — Spanish Translation & Editorial Decisions

For WS2, I translated the simulated answer from Prompt v2 into Spanish, ensuring a formal but accessible register for audiences in Puerto Rico and Spain. I also documented editorial decisions to highlight bilingual capability, terminology consistency, and cultural inclusivity.

Traducción al español (respuesta de Prompt v2)

Respuesta simulada en español: Según relatos españoles de finales del siglo XV, La Española estaba dividida en los cacicazgos de Marién, Maguá, Maguana, Jaragua y Higüey, cada uno encabezado por un cacique cuyo sucesor solía ser el hijo de su hermana en.wikipedia.org teachersinstitute.yale.edu. Los cronistas describieron una jerarquía pacífica: los caciques llevaban medallones de guanín y se sentaban en los caneyes mientras los nitaínos supervisaban el trabajo y la guerra, los bohiques dirigían las ceremonias espirituales y los naborías cultivaban conucos y pescaban teachersinstitute.yale.edu. Mencionaron a cacicas como Anacaona y Luisateachersinstitute.yale.edu pero en general destacaron el liderazgo masculino. Arqueólogos modernos en En Bas Saline sostienen que estas narrativas minimizan la diversidad. Las evidencias de descendencia matrilineal, múltiples jefes regionales y casas de distintos tamaños sugieren diversos grados de centralización floridamuseum.ufl.edu. La agricultura en conucos —montículos elevados para yuca, frijoles y maní— muestra un uso intensivo de la tierra y un trabajo cooperativo floridamuseum.ufl.edu. Los roles de género eran menos rígidos de lo que insinuaron los españoles; las mujeres podían ser cacicas, cultivaban junto a los hombres y a veces participaban en la guerra floridamuseum.ufl.edu. Persisten interrogantes sobre la autonomía política de las aldeas y sobre cómo la epidemia y la violencia colonial transformaron el poder de género.

Decisiones editoriales

- **Registro formal neutro:** Elegí un tono formal pero accesible que funciona tanto para Puerto Rico como para España, evitando regionalismos.
- **Terminología consistente:** Traducí *nitáinos*, *bohíques*, *naborías*, *cacique* y *conuco* sin comillas, ya que son términos aceptados en español y pertenecen al contexto indígena.
- **Inclusividad de género:** Usé “las mujeres podían ser cacicas” para visibilizar el liderazgo femenino e incluí sujetos plurales para evitar sesgos masculinos.
- **Adaptación de idioms:** Reemplacé “raised mounds” por “montículos elevados” y “fisheries” por “pescaban” para mantener claridad en español.
- **Claridad temporal:** Mantuve referencias explícitas a “finales del siglo XV” y empleé tiempos verbales pretéritos para narrar hechos históricos de manera coherente.

WS3 — Verified Research Brief

I created this brief from the approved academic sources, ensuring neutrality, factual accuracy, and inline citations. This stage demonstrates the ability to synthesize multiple scholarly perspectives into a concise, evidence-based summary.

Taino society at European contact (c. 1492) was organized into at least five hereditary chiefdoms, or **cacicazgos**, each with a defined territory, regional chiefs and a paramount **cacique**floridamuseum.ufl.edu. Spanish chroniclers described a rigid hierarchy with **nitáinos** (nobles/warriors) and **bohíques** (shamans) assisting the caciques and **naborías** comprising the farming majorityfloridamuseum.ufl.edu. Caciques were chosen through matrilineal descent; a chief’s sister’s son succeeded him, and female rulers such as Anacaona and Luisa are documentedteachersinstitute.yale.eduteachersinstitute.yale.edu. Village life revolved around **yucayeques** led by caciques who decided war and justice and presided over ceremonies in the central **batey**teachersinstitute.yale.edu.

Modern archaeological research at sites like En Bas Saline interprets these chiefdoms as complex matrilineal societies with regional diversityfloridamuseum.ufl.edu. Evidence indicates that both women and men participated in farming, trade and warfare, and gender roles were relatively non-exclusivefloridamuseum.ufl.edu. Economic life centered on **conucos**—raised mounds used for intensive cultivation of manioc, batata and malangateachersinstitute.yale.edu—supplemented by fishing, hunting and tradefloridamuseum.ufl.edu. Houses (bohíos) were circular, while the chief’s **caney** was rectangular, and social activities took place in the open **batey**teachersinstitute.yale.edu. Each chiefdom encompassed dozens of communities and maintained networks of subordinate chiefs and nitáinosfloridamuseum.ufl.edu. By AD 1100–1200, social stratification became more pronounced, suggesting increasing centralization in some regionsfloridamuseum.ufl.edu.

Sources used:

- Florida Museum of Natural History, **Taino Society** (matrilineal chiefdoms, social categories, gender roles, economy)floridamuseum.ufl.edufloridamuseum.ufl.edu.
- Florida Museum of Natural History, **Taino Culture History** (Ostionoid tradition, intensification and social stratification)floridamuseum.ufl.edu.
- Yale-New Haven Teachers Institute, “The Taínos: Background Information” (societal levels, matrilineal succession, female leadership, conucos)teachersinstitute.yale.edu.
- Wikipedia, **Chiefdoms of Hispaniola** (five chiefdoms and hierarchical structure)en.wikipedia.org.

Uncertainty: Scholars debate how centralized the cacicazgos were, whether warfare played a larger role than chronicles suggest, and how gender dynamics shifted following European contact.

WS4 — Annotation Table

I annotated each sentence of WS3 by claim type, stance, safety flags, reading level, and a short explanatory note. This process demonstrates transparency, fact-checking discipline, and awareness of how historical content interacts with AI safety and neutrality requirements.

Sentence from WS3	claim_type	stance	safety_flags	reading_level	r
Taíno society at European contact (c. 1492) was organized into at least five hereditary chiefdoms, or cacicazgos , each with a defined territory, regional chiefs and a paramount cacique floridamuseum.ufl.edu .	Fact	Neutral	None	9th grade	S F C (S
Spanish chroniclers described a rigid hierarchy with nitainos (nobles/warriors) and bohiques (shamans) assisting the caciques and naborias comprising the farming majority floridamuseum.ufl.edu .	Fact	Neutral	None	9th grade	L C C S
Caciques were chosen through matrilineal descent; a chief's sister's son succeeded him, and female rulers such as Anacaona and Luisa are documented teachersinstitute.yale.edu .	Fact	Pro-Taíno	None	10th grade	H R S V L
Village life revolved around yucayeques led by caciques who decided war and justice and presided over ceremonies in the central batey teachersinstitute.yale.edu .	Fact	Neutral	None	9th grade	C C A S
Modern archaeological research at sites like En Bas Saline interprets these chiefdoms as complex matrilineal societies with regional diversity floridamuseum.ufl.edu .	Fact	Neutral	None	11th grade	F R I S
Evidence indicates that both women and men participated in farming, trade and warfare, and gender roles were relatively non-exclusive floridamuseum.ufl.edu .	Fact	Pro-Taíno	None	9th grade	M C
Economic life centered on conucos —raised mounds used for intensive cultivation of manioc, batata and malangate teachersinstitute.yale.edu —supplemented by fishing, hunting and trade floridamuseum.ufl.edu .	Fact	Neutral	None	9th grade	L A E
Houses (bohíos) were circular, while the chief's caney was rectangular, and social activities took place in the open batey teachersinstitute.yale.edu .	Fact	Neutral	None	8th grade	L A F
Each chiefdom encompassed dozens of communities and maintained networks of subordinate chiefs and nitainos floridamuseum.ufl.edu .	Fact	Neutral	None	9th grade	E S H
By AD 1100–1200, social stratification became more pronounced, suggesting increasing centralization in some regions floridamuseum.ufl.edu .	Fact	Neutral	None	10th grade	F T F A F

WS5 — Deliverables Summary

I wrote this summary to document how the portfolio's outputs demonstrate prompt design, bilingual communication, research verification, and AI safety considerations.

This portfolio demonstrates multiple AI training skills. In **WS1** I drafted two prompts comparing colonial and modern perspectives on Taíno social structure. The exercise required careful prompt design, simulation of AI responses and self-evaluation to refine instructions. In **WS2** I translated the improved answer into Spanish and documented editorial decisions, showing bilingual ability and awareness of cultural register. **WS3** presents a verified research brief built solely from academic sources with inline citations, evidencing neutrality and fact-checking. **WS4** annotates each sentence of the brief by claim type, stance and readability, illustrating transparency and safety-aware analysis. Finally, **WS6** offers a Spanish translation of the research brief, reinforcing multilingual capability. Overall, the case study matches the structure and professional tone of the previous Vieques portfolio while maintaining caution, evidence-based reasoning and clear documentation of uncertainties.

WS6 — Spanish Translation of WS3

I produced a clean, precise Spanish translation of the WS3 research brief to show language versatility and accuracy in translating historically sensitive material.

La sociedad taína en el momento del contacto europeo (c. 1492) estaba organizada en al menos cinco cacicazgos hereditarios, cada uno con un territorio definido, jefes regionales y un cacique supremo floridamuseum.ufl.edu. Los cronistas españoles describieron una jerarquía rígida en la que los **nitainos** (nobles/guerreros) y los **bohiques** (chamanes) ayudaban a los caciques y los **naborías** constituían la mayoría campesina floridamuseum.ufl.edu. Los caciques se elegían por descendencia matrilineal; el hijo de la hermana del cacique le sucedía, y se documentan gobernantes como Anacaona y Luis teachersinstitute.yale.edu teachersinstitute.yale.edu. La vida de los pueblos giraba en torno a los **yucayeques**, liderados por caciques que decidían sobre la guerra y la justicia y presidían ceremonias en el **batey** central teachersinstitute.yale.edu.

Las investigaciones arqueológicas modernas en lugares como En Bas Saline interpretan estos cacicazgos como sociedades complejas matrilineales con diversidad regional floridamuseum.ufl.edu. La evidencia indica que tanto mujeres como hombres participaban en la agricultura, el comercio y la guerra, y que los roles de género eran relativamente no exclusivos floridamuseum.ufl.edu. La vida económica se centraba en los **conucos** —montículos elevados utilizados para cultivar intensivamente yuca, batata y malanga teachersinstitute.yale.edu— complementados con la pesca, la caza y el comercio floridamuseum.ufl.edu. Las viviendas (bohíos) eran circulares, mientras que el **caney** del jefe era rectangular, y las actividades sociales se desarrollaban en el batey teachersinstitute.yale.edu. Cada cacicazgo abarcaba decenas de comunidades y mantenía redes de jefes subordinados y nitainos floridamuseum.ufl.edu. Para los años 1100–1200 d.C., la estratificación social se hizo más pronunciada, lo que sugiere una mayor centralización en algunas regiones floridamuseum.ufl.edu.