The *Cupove* as a Mapuche Anatomist: Anatomical Practices and Forensic Functions in Pre-modern Chile

El Cupove como Anatomista Mapuche: Prácticas Anatómicas y Funciones Forenses en el Chile Premoderno

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SUMMARY: This article examines the historical significance of the *cupove*, a Mapuche ritual specialist described in eighteenth-century sources as performing post-mortem body dissections for diagnostic and forensic purposes. Drawing on a historical-bibliographic review of seventeen primary and secondary documents—including colonial dictionaries, missionary vocabularies, ethnographic reports, and anatomical commentaries—this study investigates the role of the *cupove* as a precursor to anatomical practices in pre-Hispanic and colonial Chile. The analysis identifies three core functions historically attributed to the *cupove*: post-mortem dissector, transmitter of empirical knowledge regarding internal anatomy, and forensic agent in suspected poisoning cases. Early chroniclers such as Andrés Febrés and Abbot Juan Ignacio Molina highlighted the use of anatomical terminology and observational techniques by these ritual specialists, who performed corpse openings to establish the cause of death, identify illness, or determine spiritual affliction. These findings suggest the existence of a localised, culturally embedded anatomical tradition before the institutionalization of Western anatomy in Chilean medical schools during the nineteenth century. The study contributes to a more comprehensive and inclusive history of anatomical knowledge in South America by documenting this Indigenous anatomical agent. The *cupove* exemplifies a culturally grounded diagnostic approach to the human body that, although distinct from academic dissection protocols, fulfilled medically relevant and socially significant functions.

KEY WORDS: Anatomy; Cultural Anthropology; Forensic Medicine; History of Medicine; Indigenous Peoples.

INTRODUCTION

The origins of the practice and teaching of anatomical sciences in Chile have traditionally been associated with the establishment in 1833 of the chairs of Anatomy, Physiology and Hygiene in the context of the foundation of the School of Medicine at the National Institute (in Spanish: Instituto Nacional, Literario, Económico, Civil y Eclesiástico del Estado de Chile), practice and teaching later formalised with the foundation of the University of Chile in 1842 (Cárdenas, 2017). During this period, anatomical discipline developed in deplorable conditions, fraught with risks associated with infections and injuries during practice, with mention being made of the origin of the first cadavers used for teaching (Cárdenas, 2020). At the end of the nineteenth century, anatomy teaching was in the hands of physicians who returned from Europe to run chairs at the Faculty of

Medicine, since the Chilean government had subsidised their stay in the Old World (Machuca Marín, 1926). Subsequently, creating other health careers extended anatomical instruction to training new health professionals, such as odontologists (Valdenegro *et al.*, 2014). The arrival of European scientists at the nascent Pedagogical Institute of the University of Chile (Rubilar Solís, 2008) led to the gradual introduction of descriptive and comparative anatomy into the curriculum for natural science teachers.

Before these republican milestones, however, anatomical knowledge had already been present in the Chilean colonial academic environment, particularly within the Royal University of San Felipe (*Academia Regalis Regni Chilensis*). This institution, founded in 1758, offered basic medical

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training that occasionally included anatomical procedures such as medico-legal autopsies, albeit under precarious conditions and with limited continuity (Cárdenas, 2017).

Beyond institutional settings, early documentary evidence suggests the existence of anatomical practices among Indigenous populations (Quevedo Aragón, 1944). Even a series of terms in Mapudungun (or borrowed from Quechua and incorporated into Mapudungun) refer to anatomical parts or diseases that have persisted in Chilean Spanish today (Cortés, 2024). In the case of the Mapuche people, the figure of the *cupove* stands out —a Mapuche specialist described in eighteenth-century sources by authors such as the Jesuits Fr. Andrés Febrés (1765) and Abbot Juan Ignacio Molina (1795). These sources refer to the *cupove* as an individual responsible for performing body openings, usually post-mortem, to identify internal alterations related to disease, poisoning, or spiritual causes.

This article examines historical references to the *cupove* to determine its relevance as an antecedent to anatomical practice in Chile. The hypothesis is that the *cupove* operated within a coherent system of internal body knowledge that, while differing from Western anatomical norms, fulfilled diagnostic and explanatory functions. By analyzing historical and current references from the eighteenth to the twenty-first centuries, this research aims to contribute to a more comprehensive understanding of Mapuche anatomical traditions in pre-modern Chile.

MATERIAL AND METHOD

This research subscribes to the interpretive paradigm, through a qualitative, documentary and historical study aimed at reconstructing the meaning of Mapuche anatomical practices associated with the *cupove*. This selection is consistent with Mejía Navarrete (2003), who states that qualitative studies —due to the nature of the phenomena they highlight in society, the subjective and motivational aspects of social action within a holistic perspective emphasize angles of observation, inductive reasoning, and concept discovery. The approach was qualitative and historiographical, with a documentary design that employed comparative-historical analysis. First, a bibliographic search was conducted using the terms cupove and Mapuche in academic databases such as Web of Science, Scopus, and Google Scholar. Second, a historiographical analysis was performed on primary and secondary documentary sources from the eighteenth to the twenty-first centuries. These included digitized materials that were freely accessible through search engines such as Google Books, platforms like Archive.org, and university digital libraries. Historiographical analysis was considered because it methodologically attempts to recapture the complex dimensions of events, the peoples and even the meanings and ideas of the past that have influenced and shaped the present. According to Mella (2003), it is, therefore, a strategy that attempts to gather information from the past and bring those pieces of information together into a meaningful set of explanations.

Texts were reviewed in five languages —Spanish, English, French, Italian, and German— to identify and compare references to the *cupove*. Mentions of the *cupove* were extracted, translated where necessary, and systematically analyzed from works by classic authors such as Febrés (1765), Molina (1795), Brewster (1830), Saint-Priest (1838), Ferrer (1904), Gotschlich (1913), Gusinde (1916), Wenzel (1929), Quevedo Aragón (1944), Silva (1964), Victoria (1965) and Gay (2018), among others more recent.

The study was conducted between March and May 2025. This research did not involve human participants or animals and was based solely on publicly accessible historical documents; thus, ethical approval was not required.

RESULTS

A total of seventeen documentary sources were identified that explicitly address the figure of the *cupove*, spanning from the mid-eighteenth century to the early twenty-first century. These include colonial dictionaries, ethnographic reports, anatomical commentaries, fictional accounts, and academic publications.

Early accounts distinguish two medical roles among the Mapuche: the gutarve and the cupove. The gutarve is described as "a kind of surgeon" who "heals fractures, wounds, and ulcers" and "frequently performs astonishing cures" (Molina, 1795; Brewster, 1830). In contrast, the *cupove* was primarily associated with internal post-mortem procedures and symbolic diagnostics. Various sources agree that the term cupove has variants such as culpolave, cupolave, and malelchene, all referring to the Mapuche specialist responsible for opening corpses for diagnostic and ritual purposes (Gotschlich, 1913; Gordon, 1985; Román Marambio & Cantarutti Rebolledo, 1998). Ferrer (1904), in his investigations on the history of Chilean medicine, mentions that the *cupoves* were those in charge of opening human cadavers to examine the body's interior. On his part, Gusinde (1916) mentions that between the two professions of Machis and cupoves, it is almost certain that the cupoves were nothing more than Machis who occasionally performed autopsies. People gave them the name associated with that practice, noting that the verb kepon means "to disembowel" (Gusinde, 1916).

A composite figure was created to visually illustrate some key documentary excerpts analyzed in this study (Fig. 1). The systematic analysis of references enabled the identification of three core functional roles for the *cupove*: (i) post-mortem dissector, (ii) transmitter of anatomical knowledge, and (iii) judicial or ritual medical agent.

Regarding *cupove*'s role as a post-mortem dissector, Febrés (1765) notes that the *cupove* is "the one who performs this task" (derived from the verb *cupon*), referring to ritual corpse opening (Fig. 1A). In this role, the *cupove* is associated with ritual autopsies carried out among the Mapuche People (Román Marambio & Cantarutti Rebolledo, 1998). Wenzel (1929) further documents the extraction of viscera for diagnostic purposes. In this regard, Victoria (1965) reports that the hand of the *cupove* is specialised in removing the entrails, opening the abdomen, extracting the bladder, intestines, and bile. All of this is emptied into vessels with inverted lids.

Concerning the *cupove*'s role as a transmitter of anatomical knowledge, Abbot Molina (1795) defines cupon

as "to anatomize," and describes the cupove as one person "...who, influenced by Machismo, opens the corpses to reveal the entrails, which they claim are infected with magical poison. Nevertheless, by virtue of this practice, they possess not insignificant knowledge about the structure of the human body, whose parts they are able to explain with particular names" (Fig. 1B). Other later authors, such as Brewster (1830) (Fig. 1C) and Saint-Priest (1838), reiterate the idea that the *cupove*, through operations, has acquired considerable knowledge of the human body's structure. More recently, Viegas (2010) describes cupove as a "surgical shaman," positioning him as an epistemological forerunner of the modern surgeon.

Regarding *cupove*'s role as a judicial or ritual medical agent, Febrés (1765) explains that "the verb cupon [verb also reported a kepon or kepen] means to open dead bodies in order to see the poison they have been given, or the harm that has been done to them, and to blame it on someone else.". The renowned French Chilean naturalist Claude Gay (2018) also argues that the *cupove* was able to determine the magical or toxic cause of death, integrating symbolic and

Gutarve, son verdaderamente estimables, y ha-

on - abrir los cuerpos muertos, para ver veneno, que les han dado, ò el daño, que Jes han hecho, y achacarlo à otro: cupove el que tiene este oficio.

cen muy amenudo curas admirables. No sucede así con los segundos, llamados Cupove, del verbo cupon, anatomizar, los quales infatuados del Machismo, abren los cadáveres, para demostrar las entrañas, que dicen estan contagiadas del veneno mágico. No obstante de esto, á merced de este exercicio, poseen nociones no despreciables sobre la estructura del cuerpo humano, cuyas partes saben explicar con nombres particulares.

geons, Gutarce, exhibit great skill in the treatment The surgigal skill of of dislocations, fractures, wounds, and ulcers; and the Araufrequently perform astonishing cures. Another class of them, called Cupove, tinetured with the principles of the Machis, often dissect bodies to prove that their viscera are tainted with magic poison; and, during these operations, they have acquired no despicable information respecting the structure of the human frame. Their lancet is the sharp point of a flint fixed in a handle, and a bladder and pipe form the syringe which they use.

canians.

El muerto queda espuesto dos dias en su lecho; pasado este tiempo viene el operador (cupolave) i practica una cisura en la rejion hepática; cuatro ayudantes agrandan o estienden el corte i descubren el higado i el saquito de la bilis; ésta se vácia en una cuchara i por su color se determina el veneno que ha causado la muerte; en seguida ese mismo líquido se hace evaporar en una vasija de greda i el residuo que deja, se examina.

El «Cupolave» da a conocer qué bebida o alimento ha provocado la muerte; se delibera en seguida. quién ha sido el culpable: de este modo han mnerto muchos inocentes, sometidos a los martirios mas horrorosos.

Figure 1. Documentary representations of the anatomical role of the cupove (1765–1913). A. Lexicographic definition of cupon and cupove in Febrés's Arte de la Lengua General del Reyno de Chile (1765), highlighting its ritual forensic function. B. Abbot Molina's (1795) commentary, describing the cupove as a cadaver dissector with empirical anatomical knowledge. C. Brewster's (1830) reinforces the Molina commentary about *cupove*'s role in opening bodies to identify magical poison and explain organs. D. Gotschlich's (1913) ethnographic narrative illustrates the cupolave's procedure for identifying poison in the liver and assigning responsibility for the death. Sources: Obtained for educational and research purposes from the free access provided by Memoria Chilena (https://www.memoriachilena.gob.cl/) and The Edinburgh Encyclopaedia (https://archive.org/details/edinburghencyclo14edinuoft/page/n5/mode/2up).

physiological knowledge. Gotschlich (1913) offers a vivid account of this ritual forensic function: "the operator (cupolave) makes an incision in the hepatic region [...] by its colour the poison that caused the death is determined," and adds that "the 'cupolave' reveals which drink or food caused the death [...] in this way many innocents have died, subjected to the most horrific torments" (Fig. 1D). This function held explanatory power in litigious or funerary contexts. In one of his literary works, the Chilean poet and National Prize for Literature laureate Víctor Domingo Silva (1964) describes the cupove, or autopsy specialist, as examining a corpse's heart, liver, and kidneys with the air of a confident doctor: The cupove concludes with certainty that the poison, the precise cause of death, was extracted from a plant found only on the other side of the Andes (Silva, 1964). This literary depiction, although stylized, illustrates the cultural recognition of the *cupove*'s diagnostic capacity and its association with forensic authority. Gay (2018) also noted that Mapuche medicine included various types of indigenous doctors, among whom the cupove was responsible for identifying whether a death had been caused by toxic or magical means. This role was culturally distinct, and although it could provoke fear or apprehension, it was respected for its association with sacred knowledge and postmortem inquiry.

DISCUSSION

The figure of the *cupove* challenges the conventional view that anatomical dissection in Chile was introduced solely through Western academic medicine. As evidenced in early accounts by Febrés (1765) and Molina (1795), Mapuche specialists could identify internal organs and establish causal relationships between visceral alterations and death. These activities —far from merely "superstitious"— reflect procedures grounded in anatomical observation and diagnostic reasoning within a ritual and cultural framework.

While modern anatomy is characterized by systematic objectivity and structural compartmentalization of the body, the interpretative approach of the *cupove* integrates physical, symbolic, and spiritual dimensions. Specific historical sources even propose that "the *cupoves*, who, as if they intuited the existence of microbes and germs, attributed all disease to the action of insects or invisible animals" (Pettazzoni, 1943), suggesting an early conceptualization of pathogenesis based on internal and external agents. Although not microbiological in a modern sense, such explanations demonstrate an empirical logic consistent with observational anatomopathology.

The historical continuity of the *cupove* is reinforced by a broad spectrum of sources—from colonial dictionaries and nineteenth-century encyclopaedias to modern ethnographic studies—that consistently describe his

anatomico-forensic role. These converging descriptions support the *cupove*'s historicity and suggest a sustained anatomical practice embedded in Mapuche medical systems. The limited presence of the *cupove* in canonical anatomical historiography may be partially explained by representational biases in nineteenth-century scientific discourse. As Lara Ortega *et al.* (2024), argue the image of Indigenous peoples was shaped by ideological constructs that excluded non-Western scientific contributions. We state that such epistemic exclusion was not incidental but structurally embedded, privileging Chilean colonial rationality while displacing native anatomical models. This limited presence reflects a reductive and hierarchical stance typical of its time (*cfr.* Gusinde, 1916), grounded in the Eurocentric paradigm that also dominated early twentieth-century ethnographic studies.

While the formal institutionalization of anatomical education in Chile began in 1842, marked by limited infrastructure and sanitary challenges (Cárdenas, 2020), the activities attributed to the *cupove* suggest that functional forms of anatomical dissection already existed in Mapuche contexts during the eighteenth century. Though differing in methodology, these practices served diagnostic, forensic, and sociocultural functions. This contrast is further illustrated by the anatomical education process in Concepción, which, as shown by Osorio et al. (2020), underwent a gradual academic consolidation over a century. However, this trajectory systematically marginalized extra-university anatomical traditions such as those represented by the cupove. The coexistence —and subsequent erasure— of these traditions demonstrates the role of biomedical hegemony in shaping the historical construction of anatomical knowledge in the southern Andes.

Although Cárdenas (2017) briefly acknowledges the figure of the *cupove*, a more systematic incorporation into the historiography of Chilean anatomy would allow for a critical re-examination of the discipline's origins. Recognizing the *cupove* does not entail idealising Indigenous traditions, but restoring visibility to historically overlooked contributions that formed part of a diverse anatomical landscape before the institutional dominance of modern morphology.

CONCLUSION

The results of this research allow us to conclude that the *cupove* fulfilled a defined and multifaceted role within pre-modern Mapuche medicine, acting as a ritual dissector, empirical anatomist and forensic examiner. The *cupove* figure, documented in colonial dictionaries, missionary reports, and ethnographic studies, challenges the current notion that anatomical knowledge in Chile stemmed exclusively from institutionalized Western medicine. The

cupove represents a culturally embedded Mapuche anatomical tradition that, despite lacking formal academic structures, applied systematic observation and post-mortem analysis to infer pathological causes and ensure social accountability in cases of death. The result shown in this article reaffirms the need for intercultural and historically grounded frameworks in Chilean morphological sciences. Further studies should be conducted about *cupove* from the perspective of Chilean anatomy's historiography to enrich our understanding of the country's intellectual heritage.

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RESUMEN: Este artículo examina la importancia histórica del cupove, un especialista ritual mapuche descrito en fuentes del siglo XVIII como el encargado de realizar disecciones post mortem de cuerpos con fines diagnósticos y forenses. A partir de una revisión histórico-bibliográfica de diecisiete documentos primarios y secundarios —incluyendo diccionarios coloniales, vocabularios misionales, informes etnográficos y comentarios anatómicos—, este estudio investiga el rol del cupove como precursor de las prácticas anatómicas en el Chile prehispánico y colonial. El análisis identifica tres funciones fundamentales históricamente atribuidas al cupove: disector post mortem, transmisor de conocimiento empírico sobre anatomía interna y agente forense en casos sospechosos de envenenamiento. Importantes cronistas como Andrés Febrés y el abate Juan Ignacio Molina destacaron el uso de terminología anatómica y técnicas de observación por parte de estos especialistas rituales, quienes realizaban la apertura de cadáveres para establecer la causa de la muerte, identificar enfermedades o determinar aflicciones espirituales. Estos hallazgos sugieren la existencia de una tradición anatómica localizada y culturalmente arraigada antes de la institucionalización de la anatomía occidental en las Facultades de medicina chilenas durante el siglo XIX. El estudio contribuye a una historia más completa e inclusiva del conocimiento anatómico en Sudamérica al documentar este agente anatómico indígena. El cupove ejemplifica un enfoque diagnóstico del cuerpo humano con base cultural que, si bien es distinto de los protocolos académicos de disección, cumplía funciones médicamente relevantes y socialmente significativas.

PALABRAS CLAVE: Anatomía; Antropología Cultural; Historia de la Medicina; Medicina Forense; Pueblos Indígenas.

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