From Knots to Narratives: Reconstructing the Art of Historical Record Keeping in the Andes from Spanish Transcriptions of Inka *Khipus*

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Abstract. Based on a close examination of Spanish translations and transcriptions of "readings" of Inka *khipus* (knotted-string recording devices) by native "knot-keepers/makers" during the sixteenth century, I make suggestions about the types of information that appear to have been recorded. While memory played an important role in the construction of full narrative renderings of the khipus, the transcriptions nonetheless suggest that the khipu signifiers contained a high level of syntactic and semantic information. It is argued, therefore, that the khipu recording system may have more closely approximated a form of writing than has heretofore been supposed.

The record-keeping system of the Inka empire has been the subject of a considerable amount of interest on the part of Andean scholars since the beginning of this century.¹ The system, a combination of recording techniques and interpretive knowledge, was based on the manipulation of knotted-string devices called—in the Quechua language spoken by the Inkas—khipus (literally, "knots"). Khipus were composed of a variable number of "pendant strings," made of spun, plied, and often dyed cotton and/or camelid fibers that were attached to thicker "primary cords." Various types and numbers of knots were tied into the pendant strings, usually in clusters at different levels, or tiers, as measured from the point of attachment of the pendant strings to the primary cord. In many cases, knots were accorded numerical values based on their position on the strings and expressed in the decimal system that was used by the Inkas for recording quantitative data (see Ascher and Ascher 1981; Locke 1923; Urton 1997).

Descriptions of the khipus contained in documents written at the time of the Spanish conquest (beginning in 1532) and the subsequent two or

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three decades reveal that the Inkas used khipus to record quantitative data (e.g., censuses and tribute records) as well as songs, genealogies, and other narrative forms containing historical information.² To date, students of the khipus have been successful in interpreting the code of the khipus only insofar as the quantitative accounts contained in them are concerned (see Ascher and Ascher 1981). However, it is not an exaggeration nor, I think, does it diminish the accomplishments of past and recent students of the khipus, to say that we are as far today from knowing how to identify and read a narrative khipu as we were at the beginning of the century.³

While there is evidence for the continued use of khipus in the Andes into colonial times in such contexts as confessionals (Harrison 1992: 27) and even by present-day Andean herders for maintaining accounts of livestock (e.g., Mackey 1970; Ruiz Estrada 1990; Soto Flores 1950-1), nevertheless, the replacement of khipus by documents written in Spanish as the official means of record keeping was virtually complete by the 1590s. In addition, the types of information recorded on khipus from the beginning of the seventeenth century appear to have represented a radically transformed and highly simplified version of the record-keeping capacities of these devices in pre-Hispanic times. It is possible that one consequence of the attenuation of the types of information recorded on khipus beginning in early colonial times would have been the loss of the technical skills and interpretive traditions required to record and retrieve complex narratives from these devices. Therefore, learning to interpret—if not actually to read—the five hundred to six hundred remaining Inka khipus in museums and private collections around the world represents the only available means of recuperating the pre-Hispanic Andean voices, historical accounts, and perspectives on the world recorded in this remarkable device.

My objective here is to reconstruct certain essential features of the record-keeping system of the khipus as a device for recording narratives in Inka times. I also identify and elaborate on fundamental changes that I think occurred in the recording techniques and information systems of the khipus under Spanish influence. These early colonial transformations of the khipu record-keeping system include the virtual elimination of fully grammatical—that is, subject/object/verb—narrative constructions in favor of attenuated, non-narrative clauses composed primarily of nouns and numbers, and the elimination of an entire corpus of native classificatory terms denoting actions required of subjects in the Inka tribute system (ethnocategories of objects were retained). Finally, I discuss the direct attack made by Spaniards on the veracity of the khipu accounts, as well as on the knowledge, reliability, and legitimacy of the *khipukamayuqs* ("knot-makers"), the native officials who were responsible for recording and interpreting

information on the khipus. This attack was of fundamental historical and political importance as it reverberated through, and severely undermined, the traditions of knowledge and authority on which the record-keeping system of the khipus in the pre-Hispanic Andean world were based.

As will soon become apparent, I have strong reservations concerning the commonly held view that the khipus represented a kind of mnemonic record-keeping system; that is, that the notations registered on these devices represented only the barest skeleton of information—in some form that adherents of this view have never specified clearly—from which the khipu-maker would construct from memory a full narrative rendering. The idea that the khipus represented such an idiosyncratic, private (i.e., individual memory-based) system of notation such that an accurate interpretation of any particular khipu could be given only by the individual who made it, is a notion largely derived either from prejudicial views of this device given in the accounts of khipus left by Spanish chroniclers or from a superficial acquaintance with the remaining khipus (which display a high degree of uniformity in their construction) and the Spanish transcriptions that were made from native readings of khipu accounts in colonial times (see below).

It is important to note that neither the Spaniards who portrayed the *khipu* recording system in this manner nor the modern commentators who have repeated this view have stated clearly what these mnemonic units may have consisted of (e.g., phonograms? logograms? ideograms?) or how their rendering may have differed from the practice of reading any of the logographic, syllabic, or even alphabetic scripts with which we are familiar. In general, there has been a profound lack of specificity and even a tendency towards mystification concerning the relationships among such factors as knowledge and memory, orality and literacy, and signifier and signified in discussions of the Inka khipus. I do not doubt that memory, as well as creative, individualistic verbal constructions played central roles in the discursive rendering, or reporting, of the information encoded on a khipu. Rather, my argument concerns the nature of the signifiers that were recorded on the khipu strings and the degree to which the significance of the recorded units was shared among the class of khipu-readers.

While I am not prepared to suggest what class of units of signification (e.g., logographic, ideographic, or even phonetic) may have been recorded on the khipus, I believe that the khipu recording system more closely approximated a form of writing than is usually considered to have been the case. As a rationale for this position on the non-idiosyncratic (i.e., shared), readable character of the khipus, I offer the following argument from an earlier study:

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The questions that we should consider in rethinking the nature of the *khipu* as a recording device are the following. If the Inka empire was indeed a state, and therefore was run by some form of bureaucracy, as it surely was (see Julien 1988; Murra 1982; Zuidema 1982), how could order and continuity have been achieved and maintained over time in the absence of a form of communication based on shared values and meanings that linked people in positions of authority at all levels of society? What kind of society—much less a state—could afford the luxury of a recording system that was grounded in the individual, or family, control of and access to state records, whether statistical or historical? And finally, if *khipus* were indeed unique, idiosyncratic objects, why did the people who made them confine themselves to the use of such a limited and redundant set of recording techniques, producing such a narrow range of structural variations?

Unless we can provide convincing answers to the above questions which leave intact the view of *khipus* as idiosyncratic objects in both their construction and interpretation, I suggest that we begin to consider an alternative view. The view that I find most satisfying and stimulating for future work is one that attributes the undecipherability of the *khipus* to our own as yet incomplete understanding of Inka intentions and meanings as they represented them in these objects. (Urton 1994: 294)

The materials I drew on for this study are documents, primarily from the Archivo General de Indias, in Seville, Spain, containing transcriptions of khipu accounts that were produced on the basis of the reading of khipus by khipukamayuqs during early colonial times (1532-85). What is principally at issue is the nature of the relationship between the information that was recorded on a khipu and the information that appears in the Spanish transcription of the reading of that khipu. The Spanish transcriptions were purportedly the products of what a khipukamayuq said was on a khipu, as translated from the khipukamayuq's native language by a bilingual (e.g., Quechua/Spanish, Aymara/Spanish) interpreter (or lengua) and as recorded by a Spanish scribe. The central problem in using these Spanish transcriptions as a source for reconstructing the nature and types of information that may have actually been recorded on the khipus is the fact that the transcriptions are the end products of three stages of interpretation—that is, from the khipukamayuq's reading, through the interpreter's translation, to the scribe's transcription.

I would argue that the only component we can approach critically and with any degree of confidence is that involving the translation of the native reading of the khipu text. Here, we are concerned with what Hardman-

de-Bautista has called the "translation tradition"—that is, the translation of native (especially Quechua and Aymara) commentaries into Spanish in early colonial times. This translation tradition emerged early in the Andes as colonial administrators began producing a body of written documents (in Spanish) from the testimony of native informants. As Hardman-de-Bautista (1982: 153) has noted, "This [translation] tradition was quickly and dogmatically established, by mutual, if unspoken, agreement from both sides, such that certain items in one language (both words and grammatical forms) were translated by specific items in the other, such that . . . for most people involved in this translation tradition, the correlative expressions were believed to be exactly equivalent expressions."

The methodological problems raised here concern both the identification of correlative words, phrases, and grammatical constructions that make up the translation tradition, and the question of whether or not the information recorded on a khipu constituted a reasonably complete and widely readable version—as opposed to essentially idiosyncratic, mnemonic notations—of the rendering given by a khipukamayuq. If there was a close correspondence between the essential components of a narration and the information recorded, then study of the khipu transcriptions has the potential to provide a new strategy for investigating khipu narratives. Later in this article, for instance, I discuss the relationship between khipu transcriptions and the Andean translation tradition as it concerns a certain type of syntactical and semantic information—that is, data-source marking—that may have been recorded on khipus.

Most khipu transcriptions explicitly identified as such and available to us today primarily represent tribute records. Thus, in my attempt here to reconstruct the recording techniques, information system, and grammatical constructions central to the production of historical khipus, I have worked from transcriptions of tribute records and extrapolated from these the elements and principles of Inka record keeping that would, in all probability, have applied as well to record-keeping practices used in historical khipus. However, it should be noted that the information available from tribute khipus is not altogether of a statistical nature; several transcriptions also contain explicit references to historical events (see below).

In order to better understand the art of reading historical khipus, I begin with an overview of some of the more straightforward procedures involved in interpreting khipu tribute records.

How Were the Khipu Tribute Accounts Read?

The most detailed account we have, in 1998, of the process of reading or interpreting a tribute account from a khipu by a khipukamayuq is found in