

An Examination of the *Balsería* and the Nature of Overproduction in Central Panamanian  
Chiefly Societies

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I would like to dedicate this work to my brilliant and beautiful, girlfriend and colleague Ashley L. Deyoung. I cannot do anything without her; she is a constant source of motivation as we pursue our dream of becoming successful archaeologists together.

# **An Examination of the *Balsería* and the Nature of Overproduction in Central Panamanian Chiefly Societies**

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## **Abstract**

The *balsería* was a ritual stick-game and feast practiced by the Guaymí of western Panama and ethno-historically it has been suggested to route to social mobility. I contend that the *balsería* is a form of ritualized warfare that stemmed from the chiefly level war-time councils reported around the coast plains of Panama. This work utilizes ethnographic, ethnohistoric and archaeological lines of evidence to explore the significance of overproduction associated with last known account of this social event and suggests the *balsería* was central to obtaining social rank in chiefly level societies reflected in the archaeological record of central Panama. Through a quantification of food production for the *balsería* and a comparison to the production of a 'normal' or subsistence level household unit of the Guaymí of Western Panama, I illustrate the sheer volume of social investment of this feasting ritual. The political, communal, and ritual nature of the *balsería* was crucial to early societal development, as the ability to host an event to the scale of a *balsería* entailed immense cooperation alluding to its societal significance.

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## 1. INTRODUCTION

Many anthropologists consider feasting a fundamental human experience that stimulates social and economic integration, solidifies alliances, and creates a collective social identity that society desires to invest in (Clark and Blake 1994; Dietler and Hayden 2001; Hayden 1995; Mauss 1990<sup>1</sup>; Sahlins 1963, 1972;). Feasting integrates social groups, provides a public forum for social construction and reproduction, and maintains civil order. The study of feasts is thus, an analytically powerful endeavour because they are also stages for important social interaction, exchange, sacrifice, prestige (Clark and Blake 1994; Hayden 1995; Mauss 1990; Perodie 2001; Sahlins 1963; Wesson 1999). Food storage and redistribution associated with feasts were the role of the host group and “serve as the mobilization of chiefly [or host] use and social aggrandizement” which was an “essential mechanism in the development of social rank” (Wesson 1999:146). Thus, feasting is an extremely socially significant aspect of being human and understanding feasting rituals will allow us to “apprehend and comprehend many of the social and cultural processes in ancient societies” (Dietler and Hayden 2001:2).

Communal Feasting as an avenue of archaeological investigation has become an increasingly valuable resource to anthropological pursuits analyzing the evolution of social organization. The archaeological literature examining ancient political economies are filled with ethnographic and archaeological evidence of feasting and associated ritual. I also consider ritual, communal feasting “as a crucial component in promoting, maintaining, and challenging the differentiation distribution of social power in middle-range societies” (Potter 2000:471-492). The elite of complex societies, for example, heavily relied on opportunities to publicly display their elevated status in a highly competitive environment (Brumfiel and Earle 1987; Creamer and Haas 1985; Earle 1977, 1989). Feasting usually entailed a large social event, often complimented

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<sup>1</sup> *The Gift* has been cited as 1967 and 1957, but was originally published in 1950 in *Essai de la don* by the University of France. For the remainder of this work Mauss 1990 refers to *The Gift* with forward and notes by Mary Douglas

by ritual games or ceremonies that attracted hundreds, sometimes thousands of spectators; this allowed ambitious potential leaders to publicly display their political aspirations. In this thesis I will be exploring the nature of overproduction associated with *balsería* feasting reported among the Guaymí of Central America as a potential means to social mobility.

Recently, ethno-archaeological research has addressed the social significance of feasting and ritual (Clarke and Blake 1994; Hayden and Dietler 2001; Hayden 1995; LeCount 2001; Potter 2001; Wesson 1999). Many attempts have been made to explain the evolution of society that stresses the role of the material or economic advantage, specifically addressing the rise of chiefdom-level societies (Creamer and Hass 1985; D'Altroy and Earle 1985; Earle 1989). The social elite are presented as having their origins in their adoption of redistribution networks and thus the rise of managerial elite (Fried 1967:116-118; Service 1962:155).

Sahlins' (1963) classic work thoroughly explores differential social organization in Melanesia and Polynesia, focusing on the transition from Big-man to chiefly level political organization. His central thesis is to determine whether or not a Big-man can become a chief, with ascribed social status. Big-men acquire achieved status, meaning social prestige and mobility is earned through the life of the leader, and prestige cannot be passed on transgenerationally (Hayden 1995; Service 1962). Chiefdom-level or ranked societies, on the other hand, are characterized by ascribed status meaning that elite possess inheritable status, passing social prestige and rank on to the next generation of related kin (Fried 1967; Service 1962).

Originally it was thought chiefs derive their power by overseeing the collection and maintenance of communal food stuffs and eventually, using their redistributive role and collected resources, finance public efforts for personal aggrandizement (Sahlins 1963; Service 1962). The exploration of ancient economic systems is not a new endeavour in archaeological investigations; however, the exploration of the redistribution of goods and services as a means to creating social debt has become more common in archaeological inquiry (e.g. Clarke and Blake 1994; Dietler and Hayden 2001).

Many anthropologists suggest the ritual and communal feasting is an essential foundation of sociocultural development (Hayden 1995); others are less enthusiastic about the analytical significance of feasts, noting that feasts can also be "subordinate to other power resources" such as control of labour (Dietler 2001), technology (Earle 1977), and of knowledge around the ritual

and exotic goods (Helms and Loveland 1976; Helms 1979, 1992). I believe that the amount of ‘weight’ you can place on this argument depends on particular social and environmental variables. For example access to subsistence resources varies depending on the degree of specialization. Earle (1977) argues that the rulers are concerned with subsistence goods and exchange to meet the basic needs of society through a system of “resource mobilization and state finance” (Earle 1977:2). As a society grows, the institutions needed to maintain that society also need to grow correspondingly in “elaboration of subsistence good’s production and mobilization” (Earle 1977:4). The sponsorship of an annual and patterned feasting ritual has in many cases incorporated these structures partially responsible for the maintenance of society while providing a public arena and motivation to attend a public ritual (Dietler and Hayden 2001).

Important archaeological case studies exploring the concept of the feast and its association with social power include: the ritual drinking of chocolate by Mayan priests in Belize (LeCount 2001), the feasting on caribou by Eskimos in the far north (Fair 2000:465) and “fine-dining” on Chinese porcelain in prehispanic Pilipino chiefdoms (Junker 2001), sumptuary feasting on llama by Inca elite (Sara-Frosse 2002), and some suggest the existence of feasting ritual in the prehistoric southwest (Pauketat et al. 2002; Potter 2000), to name only a few. The relationship between food and society cannot be comprehensively developed without an “adequately theorized and contextualized analysis of feasting” (Dietler and Hayden 2001:18). The mere documentation of ritual feasts will not provide insight to prehistoric social, economic and political dynamics thus it is crucial to identify the nature of prehistoric feasting. This is done by explaining how and why feasts operated in particular socio-economical contexts which allows us to infer more accurate information from the archaeological record (Dietler and Hayden 2001:16).

The Guaymí of Central America used feasting ritual as a route to political ascension (Young 1971). An ambitious man or a potential leader who wishes to maintain and increase his socio-economic and political control over his kin members will sponsor a *balsería* feast (Young 1970; 1971). All men who want to become a leader must sponsor a *balsería* but not all men who successfully organize a *balsería* become a leader (Loveland and Helms 1976; Torres de Araúz: n.d; Young 1971:202, 1976). The potential leader requires a consistently available mechanism for increasing wealth finance and exerting his control provided by ritual (or patterned and thus

predictable feasting). Ritual feasting accomplishes this at the regional level by creating alliances, creating social debt, increasing production to create surplus (Young 1970, 1971, 1976) and providing cultural fusion, which disproportionately concentrates control of these societal elements into the hands of the organizers or the “aggrandizers” (Clarke and Blake 1994; Young 1971:205). Not only the leader or ruler will acquire social prestige from the sponsorship of a *balsería*, but the entire community will gain some social prestige (Torres de Araúz: n.d.; Young 1970, 1971). Specifically the kin group of the primary sponsor and their followers who directly and publicly supported his feast will gain heightened (more than community as a whole) social prestige (Torres de Araúz: n.d.); hence why assistance in production and organization by followers occurs (Mauss 1990).

It is thought that the Guaymí of western Panama are the direct descendants (genetically, culturally, or some combination of both) of the prehistoric chiefdom- level societies along the coastal plains of central Panama (Briggs 1989; Cooke and Ranere 1992; Haller 2004; Lothrop 1937). I explore the social structure, agricultural practices, kinship patterns and their associated modifications in these patterns since European contact. This exploration includes an in-depth analysis of a stick-game practiced by contemporary Guaymí called the *balsería* in regards to the social feasting associated during the entire event. I explore the potential that the Guaymí community’s *balsería* feasts are reminiscent of ritualized warfare and exchange ceremonies held by prehistoric chiefdoms in The Central Region of Panama (Haller 2004; Lothrop 1950; Redmond 1994). If the chiefdoms of central Panama (including Parita Bay) once practiced a *balsería*-like form of ritualized warfare/feasting analogous to ethnohistoric reports of the *balsería* among the Guaymí (Young 1971, 1970; Young and Bort 1976) it could have carried comparable social significance with regards to models of political ascension (Drennan 2000; Marcus 1980:214-216; Peebles and Kus 1977).

Ethnographic information on the Guaymí is reviewed with respect to the social roles of competitive feasting in egalitarian societies. I consider community identity as embodied in *balsería* ‘teams’ and ‘players’, and hypo-embodied in the small group of emerging elite whom organize and sponsor the ritual and its associated feasting. Aggrandizers subsequently acquire elevated social status within their community and in the surrounding region by amassing a large amount of social debt. To support my argument I provide qualitative analysis of the *balsería* through a quantification of production patterns of the Guaymí display the sheer volume of

preparation invested into sponsorship of a *balsería*. I argue the large communal investment of time and effort further displays the social significance of the *balsería*. Lastly, I explore current archaeological correlates and offer further potential archaeological avenues quantitative investigation. The continued exploration of the distribution of social rank and social organization in central Panama, in Central America on a macro-scale, will further aid in understanding relationships between feasting and society in the Americas and beyond.

## 2. LITERATURE REVIEW

Human occupation of the Central Region of Panama began as early as 9, 000 years ago, according to archaeological information (Pearson 2002; Ranere and Cooke 2003:219). Interesting scholarly debates surrounding this date have recently risen in the literature due to the fact Native American human migration (from South America to Mesoamerica or vice versa) would necessarily pass through the isthmus region of Panama. One side champions the idea that the Paleoindian Period (9,200-5,000 B.C.) were the ‘Clovis Peoples’ and this culture-group (as represented by the horizon of the lithic technology) were the first to inhabit the Americas (Anderson and Gillam 2000). The opposing side of the debate suggests that a pre-Clovis population existed before 10, 500 B.C.E., however there is little archaeological evidence to support this idea in Panama (Pearson 2002; Ranere and Cooke 2003; Haller 2004:45). In any case, archaeological literature on the Central Panama Region has made a firm step away from the notion that Central American sites were representative of an “underdeveloped country cousins of their more sophisticated Mexican and Andean relatives” (Lange 1993: 277). Central America, including Panama, was not a ‘buffer-zone’ in prehistory and should not be treated like one by contemporary archaeologists.

### 2.1. SOCIO-ECONOMICAL THEORY

A.V Chayanov’s *The Theory of a Peasant Economy* (1925)<sup>2</sup> is a seminal study of household demography on production and overproduction where he presents an economic theory based on production patterns of Russian peasantry population in the late of the nineteenth century. Many scholars have since adopted his observations as a ‘rule’, (also known as Chayanov’s Rule or

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<sup>2</sup> Originally published in Russia in 1925 and translated to English by Thorner in 1966. In the remainder of this work when Thorner (1966) is cited it’s from Thorner’s notes and Chayanov (1966) means Thorner’s translation of Chayanov’s words

Law). The rule claims peasants in a state-level society will never overproduce (or produce more household subsistence requirement) without some form of external motivation. The motivation typically came in the form of coercion, through threat of violence or incentive. According to Chayanov then:

[T]he peasant family proceeds by subjective evaluation based on the long experience in agriculture of the living generation and its predecessors. Most peasant families, Chayanov showed, are in a position to either work more hours or of work more intensively, sometimes even both. The extent to which the members of the family actually work under given conditions he called the degree of self-exploitation of family labour. The peasants would put in greater effort only if they had reason to believe it would yield an increase in output, which could be devoted to greater family consumption, to enlarged investment in the farm, or to both. The mechanism Chayanov devised for explaining how each family acted is his labour-consumer balance (Thorner 1966: xvi).

Chayanov claimed each peasant-domestic unit seeks an output that meets the caloric intake adequate for basic needs, not pushing beyond the point where the possible increase in output is outweighed by the extra hours and effort needed. Every domestic unit, therefore, seeks equilibrium between family needs and the drudgery associated with producing enough for subsistence. Although ‘Chayanov’s Rule’ was developed for studying a state-level society, in Russia the patterns he observed are pertinent to production and consumption trends in smaller scale societies. His book has been extensively referenced by analysts from a myriad of disciplines in application of rural agricultural conditions within modern ‘developing’ societies (Shanin1986: 2).

Chayanov was one of the first scholars to discuss the influence of household demographic factors on agricultural production (Stier 1982:26). The expanding household archaeology literature is essentially based on the works by E.V. Chayanov and M. Sahlins (1963). Sahlins adapted Chayanov models of household production to explore the relationship between household demography, land use, and the intensity of agricultural labour (Sahlins 1963). Changes in the consumer-work ratio over time, according to Chayanov, are crucial in explaining changes in the status of households. Sahlins echoes Chayanov’s Rule, claiming the “intensity of labour in a system of domestic production for use varies inversely with the relative working capacity of the producing unit” (Sahlins 1972:102). Sahlins’ conclusion on Big-men social organization also displayed that due to kinship and politicking, domestic production deviates from theoretical production or overproduction predicted by Chayanov’s Rule (Stier 1982:527).

The agricultural patterns and tactics of the *Kuna* tribe of Central America were extensively studied by Francis Stier (1982) and in contrast to Sahlins he believes, on the bases on

his study, that the modification in socio-economical status is cyclic (Stier 1982:521). Stier uses mathematical models to criticize Sahlins' Domestic Mode of Production (D.M.P.) which argues that in the households of politically ambitious Big-men the work load decreased, whereas in the workload of his followers it actually increased (1972:117). He noted a gendered division of labour but that only minor variations "between communities in allocation of specific tasks" (Stier 1982:522) were apparent. Stier employed a cost-route method of recording a group of randomly selected household production and consumption patterns. On the basis of these studies Stier concluded that economic differentiation was more important to the socio-political organization of some traditional *Kuna* tribes (Stier 1982:534).

Recent anthropological studies have emphasized the importance of redistributive networks (Creamer and Haas 1985:748; Earle 1987, 1991; Helms 1976, 1979; Spencer 1993) and have added to our understandings of complex societies and their emergence. According to these scholars, elites must make the population economically dependent on the leadership role assumed by a managerial elite before a means of social control can be attained by leaders: "Sources of power are effectively co-opted by using the surplus generated from intensive agriculture to finance control over the warriors and police, craft specialists, managers, priests, and ceremonies" (Earle 1997:211). Whatever the case, most comprehensive efforts to explain the emergence of chiefdoms are based on the presumption that the roots of social complexity are found to be efforts put forth by motivated, aggressive and highly organized entrepreneurs (Dietler and Hayden 2001; Mauss 1990; Service 1962; Sahlins 1963; Wesson 1999:).

Exchange and redistributive roles are the focus of extensive archaeological research as alternative methodological and theoretical perspectives on economic exchange in pre-historic times were developed and continue to be heavily referred to by archaeologists and historians exploring ancient systems of exchange (Earle 1977:5). Studies in prehistoric exchange; recognize exchange is crucial to the sustainability and evolution of cultural systems, and advancements in modern technology have allowed for a more qualitative analysis of these previously intangible avenues (Earle 1977:2). Research surrounding prehistoric exchange has focused on interrelationships between material transactions and social organization and thus the functionalist perspective perceives trade as the material base for social organization incorporated into a society (Earle 1977:5).

Reconstructing social organization from the material remains of economical behaviour is typically one of the primary goals of archaeology (Brumfiel and Earle 1987; Earle 1977, 1989) but archaeologist must be careful when reconstructing ancient economic systems because rapid changes in the organization of the economy occurred all over the world after European colonial expansion (Earle 1977:9; Wesson 1999). Traditional economic systems of exchange are often heavily modified or even completely abandoned immediately after contact and perhaps there is nowhere that this is truer than in the Americas. Military, religious and more recent economic colonization efforts have effectively destroyed native population's socio-political structure (Wolf 1982).

Exchange of the simplest of goods often lacks the waste products that are required by archaeologist to mentally reconstruct social systems through excavations (Earle 1977; Brumfiel and Earle 1987; Creamer and Hass 1985). Ceremonial areas and market places are thought to be the physical manifestations of large exchange systems and are therefore of particular interest to archaeology because they are directly observable (Brumfiel and Earle 1987). The Guaymí's *balsería* is no exception and extremely limited archaeological evidence exists to support its existence in prehistory (Young and Bort 1976).

The court (known as *llano*) where the *balsería* was practiced was also the area reserved for exchange, but as Earle (1989) accurately notes areas that are thought to be used *for* exchange “are also very difficult to link *to* exchange” (Earle 1989:8-9, emphasis added). This is where cultural anthropology becomes invaluable; archaeologists turn to economic anthropology for enlightenment on how economic aspects of culture will leave tangible evidence. Ethnographies are extremely beneficial because they contain detailed information on the types of and the context in which goods are exchanged.

The primary function of redistribution or exchange in ranked societies is to mobilize goods to finance elite activities (D'Altroy and Earle 1985). Thus, the origins of redistribution (via feasting) are logically intricately related to the origins of social stratification in pre-history (Earle 1977:14). The hierarchy of redistribution provides a security mechanism in case of natural and social disasters and provides the means to mobilize goods to finance elite activities in socially stratified societies (Sahlins 1963; Mauss 1990; Wesson 1999; Hayden 1995, 2001, 2003).

## 2.2. CHIEFDOMS

The first time the word “chiefdom” was used as an analytical category within academia was in 1955 and interestingly the term was born out of the study of the socio-political organization of Central and South American tribes (Oberg 1955). Oberg coined the term and the premise of his typology was based on regional consolidation, “multi-community chiefdoms are governed by a paramount chief under whose control are districts and villages governed by a hierarchy of subordinate chiefs” (Oberg 1955:484). *Primitive Social Organization* by E. Service (1962) expanded on Oberg’ typology and for the first time clearly outlined exactly what chieftainship entailed. Service emphasised the importance of the role of redistribution in the evolution of social complexity, instead of focusing on regional centralization (Service 1962). Sahlins (1963) also played a crucial role arguing that redistribution was the economic basis for power inequalities (in Polynesia); and Service similarly believed the redistribution of economy was “the distinguishing trait in all chiefdoms” (Carneiro 1981:43).

To define the term chiefdom is a more difficult task than one might assume because it is a malleable, ever-evolving term, a sliding scale of concepts, depending on your theoretical stance. The study of chieftainship and its associated political development is an important anthropological endeavour because, according to some scholars, all state-level societies were once a chiefdom (Clarke and Blake 1994; Beck 2003; Hill and Clark 2001). In light of this, some consider chiefdoms a ‘stepping stone’ towards statehood. The significance of this change from and egalitarian-based social organization to a more complex and hierarchical society with an ascribed leader cannot be underestimated: “the transcendence of local sovereignty and the aggregation of previously autonomous villages into chiefdoms was a crucial step in political development—probably the most important step” (Carneiro 1981:38). The importance of this transition is debated by archaeologists and controversy still surrounds the working conceptual definition of chiefdom (Brumfiel and Earle 1987; Carneiro 1981; Creamer and Hass 1895; Drennan 2000; Earle 1987, 1989, 1997).

Cultural anthropologists, archaeologists, economists, political scientist, ethnohistorians, and many other scholars have littered academia with debates over the essence of ‘chieftainship’

over the past forty years and many definitions, sometimes contradictory, exist. For example some perceive chiefdom as little more than a heuristic tool (Drennan 2000); while others reject its usefulness all together as a analytical category in addition to all ‘neo-evolutionary formulations’ (Hodder 1982). During over four decades of shifting and transforming definitions, all have consistently associated chiefdoms with social inequalities based on the principle of achieved or ascribed status (Beck:2001).

A ‘proper’ chiefdom would have ‘ascribed status’, meaning that political power and social prestige can be passed down to the next generation. The idea of, ‘achieved social standing’ implies that social rank or prestige cannot be handed down to the next generation, meaning that social power is earned during the lifetime of an individual (Service 1962; Fried 1967). Obviously, humans do not act so predictably that it is always as clear-cut as these categories stipulate. The Guaymí, for example, are an egalitarian society where social standing is achieved however, ethnographic work has noted that leaders of the community generally rose the next generation of leaders. Thus, although status is not ascribed, social power tends to stay within the realm of the immediate kin-group (Young 1971: 21). Among the San Blas Natives, also of Panama, a similar situation of achieving semi-permanent social prestige occurs (De Smidt 1948:36). San Blas men who achieve some social mobility were not always the *corregidores* (Spanish umbrella term, loosely meaning ‘political representative’) and cannot pass their status on to their children; however, there was a tendency for leaders to instil leadership qualities in their children, as children were very likely to succeed their father (De Smidt 1948:35-6).

More recently several important steps were made away from the suggestion that clear diagnostic features of chieftainship have been established in anthropological literature (or otherwise) (Carneiro 1981; Earle 1989, 1991, 1997). Anthropologists now recognize that there is much more variability between the existing extinct chieftainships, from all over the world and varying temporal settings, than the simple dichotomies established in anthropological literature allow us determine (Drennan and Uribe 1987). A reconsideration of the nature of chiefdoms took place and now we recognize the importance of multi-community regional consolidation in our understanding of chiefdoms (Brumfield and Earle 1987; Carneiro 1981; Earle 1991). The term ‘chiefdom’ varies in the scale of social development (simple vs. complex), varies in mode of finance (staple vs. wealth), varies in structure (group oriented vs. individual orientation) and as

with all categories of social complexity, chiefdoms vary in the specific regional history (Earle 1989:84; Fried 1967; Service 1962; Earle 1977; Renfrew 1974).

Chiefdoms in the Central Panama Region represent an apex in social organization, in other words they were the most socially complex population (in the classic sense) to occupy the region prior to the Spanish Conquest (Briggs 1989; Cooke 1993, 2003; Haller 2004; Helms 1979; Loveland and Helms 1976). The peak in development, as reflected in the mortuary remains of Sitio Conte, began with semi-sedentary occupation which began as early as the third millennium B.C.E. at such sites as Monogrillo (Cooke and Ranere 1992:119).

Archaeologists have inferred the origins of sedentary life began with the cultivation of maize in the lower altitudes of western Panama (Cooke and Ranere 1992). The inference was partially based on a 62 km<sup>2</sup> archaeological survey of the Río Chiriquí Viejo and according to Cooke and Ranere (1992), sedentary-style life soon spread into the higher altitudes as maize-based agriculture's importance in subsistence patterns spread (Cooke and Ranere 1992; Linares and Ranere 1980). The archaeological residue of early subsistence patterns seem to suggest that a large change in food production and consumption patterns took place around 200 B.C.E. (Cooke 1984: 273-9) which is comparable to what has been discovered in the Río Parita Valley Region (Haller 2004). It has been suggested within the Río Parita Valley horticulture has been practiced for nearly 5,000 years (Piperno et al. 1998; Haller 2004). Around 200 B.C.E., a shift to maize-based agriculture took place and many villages were established, especially in the alluvial coastal river valleys (Cooke 1984: 272, 283-6).

Population increased as Native Panamanians continued to practice agriculture. The intensification of farming practices lead to less variability in exploited food resources, because indigenous people become more dependent on the stable and consistent food resource agriculture offered. Less variability in food resources lead to increased opportunity for social conscription and for corporate groups to gain increased control of, and limit access to resources (Cooke and Ranere 1992). Wild fauna also played an important role in the diet and food resources, attested by the abundance of white-tailed deer, fish, and shellfish remains at Central Region archaeological sites reveals that these wild resources were important dietary elements (Cooke 1992; 2003, 2004; Cooke and Ranere 1992).

According to Linares et al. (1975:187, 1977) the most limiting determinant inhibiting early human occupation is a lack of available protein sources. Thus, it follows from an

archaeological point of view, the earliest settlements could have settled in maritime regions. Many groups of gatherers and early groups experimenting with cultivation could have survived even became sedentary where marine resources were plentiful, like the Rio Parita valley (Lyll 2007). Based on Haller's (2004) survey and Lyll's (2007) subsequent analysis of shell fish exploited by human settlements, it seems that indeed maritime resources were heavily relied on in coastal regions and could have been traded with hinterland communities for agricultural goods. All activities such as agriculture, (specifically maize based), horticulture, fishing, collecting of shellfish, lithic production and many countless others daily life pursuits contributed to the stimulation and continuation of formative trends until socially stratified complex chiefdoms with firm notions of political rank finally matured.

### **2.3. CHIEFLY DEVELOPMENT IN CENTRAL AMERICA**

Ethnohistorical sources suggest rank in the Central Region of Panama was based on socio-political conditions and not on wealth status (Oviedo 1944; Ward 1989), fitting well with 'classic' definitions of chiefdoms (Fried 1967:110; Service 1962:159). In general, Pre-Columbian societies from Panama were "neither completely egalitarian nor markedly stratified" (Linares 1977:31). It has been suggested there was fluidity between social groupings, for example commoners could become a *cabra* (the lowest denomination of warrior class), enhancing his or her social status by showing fortitude in warfare (Haller 2004:5; Helms 1979:32).

Excavation reports from the Sitio Conte burials illustrate that there were distinct social ranks and wealth was associated with status for elite males in the central Panama Region around 700 A.D. (Briggs 1989; Cooke 1992, 2003; Haller 2004; Lothrop 1950, 1937). Based on the distribution of 'rank indicating mortuary packages' like precious gold ornamentations, bone jewellery and weaponry, aggressive iconographic ceramics, ivory, and manatee teeth; archaeologists inferred there was a high degree of specialization and social organization (Briggs 1989; Cooke 1992). Details on exactly how the inhabitants of the Central Region of Panama

were socially organized still elude us to this day. The large degree of fluidity between social categories hint at the notion this was also a politically instable region during the rule of chiefdoms (Linares 1977:75) and has been used to explain the emphasis placed on fighting and warfare described in Spanish chronicles (Linares 1977). Social status in the Central Region of Panama appears to be ascribed, however, socio-political conditions like cooperation and conflict between neighbouring groups, also played a key role in maintaining elite positions (Haller 2004:9).

It has been suggested that the *balsería* served as an avenue to social mobility among the Guaymí of western Panama (Young 1970; 1971; 1976). Historical documents, like Oviedo (1944), noted that when natives were not fighting, they were involved in trading and feasting presumably similar to the contemporary *balsería*, studied by Young (1971) in the mid 1960's. According to observations made during one of the last manifestations of the *balsería* in Panama, potential leaders would necessarily sponsor a *balsería* feast in order to amass social debt from community and publicly display their acquired social prestige (Loveland and Helms 1976).

Some archaeologists have noted the presence of possible *balsería* indicators, such as megaliths organized in a manner that delineates a ceremonial or ritual space (Cooke 2003). Others have mentioned the distribution of sites as evidence for some form of ritual to attract neighbouring polities. In the Rio Parita Valley, for example, certain sites seem to be strategically located between well known prehistorical trade routes. Haller (2004) suggests these 'nodes' identified in the Rio Parita Survey could have used ritual communal feasting associated with the *balsería* to attract large numbers of people to their community to ensure trade and exchange took place regularly (Haller 2004:162, 164, 186 ). This opinion accords with what Ethnohistorian Helms (1979:34) has suggested; that Panamanian chiefdoms far from trade routes could have used ritual exchange ceremonies like the *balsería* to obtain prestigious goods and esoteric knowledge.

I explore the history and nature of the *balsería* ritual stick game, focusing on the grand importance of ritual communal feasting associated with the four day event (Young 1971, Table 22,205). I seek to address whether or not prehistoric ritual exchange ceremonies served to further the political aspirations of certain corporate groups (Cooke and Ranere 1992:282, Haller 2004). If the *balsería* game practiced by the modern and historic Guaymí was a derivative of a prehistoric version, the feast could have origins in warrior training (Haller 2004), or as ritualized

warfare as a replacement for the destructive alternative (Redmond 1994: 40-45; Young 1976:47-52; Young and Bort 1976:86). Based on the ethnographic analysis of the *balsería* (Torres de Araúz n.d.; Young 1970, 1971, 1976; Young and Bort 1976) and the ethnohistoric descriptions of central markets and ritual exchange (Oviedo 1944; Adrian de Santo Tomas 1682) it seems probable that ritual communal feasting and the *balsería* were opportunities for socio-political ascension (Haller 2004:176). Next I contextualize the *balsería* by presenting the culture group whom practiced the celebrations, according to ethnographic work done in western Panama.

### 3. THE GUAYMÍ

“The [Kuna] Indians from San Blas give less trouble due to the fact they are more civilized and less vice-ridden than the Guaymí” (Panamanian Ministry of Labour Inspector report; June 24<sup>th</sup> 1957).

#### 3.1. THE NGAWBE (NGÖBÉ)

The term ‘*Guaymí*’ means ‘men’ or ‘people’ in *Muoi*, a now extinct dialect of Central America (Young 1971). Since the term ‘*Guaymí*’ has been adopted by pioneering ethnographers to distinguish a branch of the *Chibchan* language family. The term ‘*Ngawbe*’ (‘*Ngöbé*’) is also used frequently in this work<sup>3</sup>; it is a indigenous term and for all intensive purposes both terms, Guaymí and Ngawbe mean they are part of the *Chibchan*-speaking population of the western provinces of Panama, namely Bocas del Toro, Veraguas and Chiriquí (Young 1970).

The Ngawbe currently dwell in the mountainous region of the western provinces of Panama confined to a 2500 square mile reservation (Young 1970, 1971; Young with Bort 2001). Hamlets (locally known as *caseríos*) are dispersed settlements at various altitudes and locations on the mountains, which peak at over 7000 feet above sea-level; however, the majority of the Ngawbe population are located between 350 feet and 5000 feet above sea-level. A *caserio* is basically a cluster of domestic units (called *bohíos*) and are generally wattle-and-daub rectangular structures with conical thatched roofing (Figures 2-5 in Fusion 1964:193-5). Some houses are without walls and instead only contain widely placed canes. This style of house was the “most frequent type found today among the Guaymí” (Fusion 1964:192). And these house-types are still dominantly reported by modern ethnographic information, although there are occasionally ‘Spanish style’ house built (Young with Bort 1985).

The relatively tranquil life of Ngawbe populations are contrasted by busy Latino Panamanian urban conditions nearby. The Latino population and way of life is viewed negatively

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<sup>3</sup> Neither term ‘Guaymí’ or ‘Ngawbe’ will be italicized in the text as I use them frequently.

by the Guaymí who refer to them as *suliá* in Ngawbére (Young 1971:83). A national census conducted in 1960 attempted to incorporate all indigenous reservations into national population estimates; the Panamanian government estimated the total population of the Guaymí at approximately 36,000 people (Sinclair 1988; Young 1971, 1970). A more recent census conducted in the late 1980's suggests the Ngawbe are approximately 50, 000 to 55, 000 people, or about half of the total 93, 000 indigenous peoples in Panama (Chakraborty et al. 1988:711).

Approximately one half of Ngawbe territory is arable (Bort and Young 1985; Sinclair 1988; Young with Bort 2001) and the Ngawbe raise a number of farm animals including: cattle, horses, chickens, and to a lesser extent, pigs, turkeys and ducks. All animals are sold on occasion with cattle being the most economically important (Young 1971:95; Young with Bort 1999; Bourgois 1988). The Guaymí do not milk the cows and the cattle owned by the Guaymí are apparently poor milk producers (Loveland and Loveland 1982). The care for cattle is exclusively a male task, although both men and women can claim ownership of a cow or cattle (Young 1971:91). The sale of cattle made up approximately half of the total community cash income from local markets near the reservation during Young's stay in the 1960's (Young 1971:92).

The Guaymí are active in the cash-based economy in a number of ways, but their participation was limited during Young's stay in the mid-1960 (Young 1971:90). He reports that some individuals sold hand-crafted items, but these transactions were the "least important and most unreliable source of cash income" (Young 1971:93) for the Guaymí. Items such as woven belts, bags, fibre string, rope, stone pipes, straw hats, and bark cloth were all produced by women, while wooden crafts like trays, mortars, agricultural tools and pestles were typically produced exclusively by men, (Loveland and Loveland 1982; Young 1971:93).

### **3.2. KEY TERMS AND DEFINITIONS**

Before a discussion can be continued on the Guaymí culture, I shall explain what the term 'traditional' means when it is used in this work. Traditional does not imply 'indigenous', 'indigenous', or pre-contact. Instead the term refers to any aspect of contemporary Ngawbe society that they deem as traditional. In contrast, the term 'indigenous' in this work, implies that

there is archaeological evidence or historical documentation that suggests the trait or feature was present in Guaymí society prior to European contact.

Food production offers an example to illustrate understandings of these terms and is pertinent to the analysis of overproduction patterns. A number of crops have been introduced to the Guaymí since contact, products such as rice, coffee beans, coconuts, bananas and other ‘cash-crops’ which are not indigenous to the Americas; however, some are considered traditional by local Ngawbe peoples. For example, bananas were introduced to Panama “immediately and successfully” (Young 1971:26) during the initial contact and since have become a staple as important as maize in its role in subsistence (Young 1971:25). As a result bananas are considered a ‘traditional’ crop to the Guaymí. Rice, on the other hand, was introduced to the Americas at a much later date. Although there is not a dependable record that traces rice’s transportation to Central America (Sinclair 1988), apparently the Guaymí have some memory of being taught to grow rice by the Latino populations in western Panama (Young 1971). Thus, despite its huge importance in many regions of Panama (both for subsistence and as means to engage in cash-based economy), it is still not considered a traditional crop (Sinclair 1988; Young 1971:26, 74).

It is crucial to make distinctions between terms like ‘traditional’ and ‘indigenous’ when studying post-colonial culture groups. Any discussion concerning the trajectory of development before, during and after contact requires a clearly presented, accurate, and comprehensive understanding of culture and as Young (1971:27) accurately points out, “some current responses to change which may seem enigmatic in historical perspective become understandable in the setting of traditional culture as it is seen by the native”.

### **3.3. SPANISH ENCOUNTERS**

The first foreign documentation recording the presence of the Guaymí dates to A.D. 1502, by Christopher Columbus’ son Ferdinand Columbus who accompanied his father on his fourth voyage to the New World (Oviedo 1944; Ward 1989). His descriptions of encounters during numerous stops along the Caribbean coast of the Isthmus (present day Bocas del Toro) offer important insight to the social structure of the Guaymí at and prior to contact. During his first

visit Ferdinand Columbus (1502) also observed that the Natives living near modern western province of Veraguas and Bocas del Toro practiced what he describes as a peculiar settlement style, “and because I call it a town or village, it is not to be observed that in those parts their houses are not close together... there were no regular towns, but one house here, and another at a great distance” (Columbus 1502). Fray Adrian de Ufeldre’s account offers a rough estimate of the distance between houses that Columbus’ work lacks, “the houses were from one quarter to a half league apart” (Ufeldre 1682:24)<sup>4</sup>. As anthropologist reconstruct settlement patterns and compare to modern Guaymí a clear connect emerges; the repeatedly reported dispersed pattern was consistent since initial contact to modern ethnographic studies (Sinclair 1988; Young 1970, 1971).

Columbus’s (1502) account of encountering a *Quibio* or ‘chief’ of a household of approximately 30 people and other “men of note” alluded to the presence of social ranking during early contact. A later account by Fray Ufeldre (1682) provides a list of the various chiefly hamlets, “*Borosi, Yebeque, Manugo, Menena, Baga, Medi, and Negri*” (Ufeldre 1682:24). We have little information on the social context of the ‘chiefs’ mentioned in documentation, but some interpretation of their social structure was offered by later Spaniards 200 years later Fray Franco, for example:

They do not recognize among themselves any form of police or government, though their meetings are accustomed to follow the opinions of their elders or chiefs; but this is not an obedience so blind that they will refrain from doing what they please contrary to the opinion of the chief, especially if the meeting has been called to consider leaving the mountains and living in submission in the mission towns [*pueblos reducidos*] that are so repugnant [to them] or for some other matter that is not very agreeable to them; and in such a case as that, they are willing to agree with the first one who voices approval of a negative stand, even though he be the youngest (Fray Franco 1882:10).

The Espinosa expeditions of A.D. 1519 and A.D. 1521 (published in A.D. 1892 and A.D. 1873, respectfully) offer an early account of the sheer volume of activity on the coastal regions to the south and east of modern Guaymí territory. Again we can only speculate that the villages, people, and culture encountered in central Panama by early voyages to New World were the descendants of the modern Ngawbe (Young 1971:38).

A few records enlighten us on early ‘soul-seeking’ tactics of Spanish missionaries aimed at the Guaymí. The first attempt at “proselytization” was by Fray Augustine de Ceballos, who

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<sup>4</sup> Fray Adrian de Ufeldre was also known as Fray Adrian de Santo Tomás,

landed among the Guaymí natives in A.D. 1581 (Young 1970:15). He wrote a report to the King of Spain in A.D. 1610 describing some of the difficult hurdles involved in paving the path to enlightenment (Ward 1989). Letters such as these have become an important resource to archaeologists and historians because they discuss the ‘demonic’ ritual practices by ‘primitive’ populations. For example Fray Adrian de Santo Tomas lived amongst the Native Central Americans for fifteen years, between 1622 and 1637 (Fray de Santo Tomas 1682). During his many years in western Panama he produced a considerable quantity of quality material which is considered, “the most valuable source available for Guaymí ethnography of the seventeenth century” (Young 1970:12).

The Spanish chronicles offer an important insight, but the context of their ‘view’ of indigenous cultures has to be considered when reviewing the literature, as political means and personal opinions are often embedded into the historical texts. Nonetheless, the chronicles illustrate the overall stability of Guaymí life ways and assist in validating my claim that the contemporary *balsería* has remained generally unmodified since prehistory in practice and function. It is important to note the *balsería* feast was abandoned prior to major structural changes in socio-economics of the western Guaymí, and thus offers a crucial insight to traditional production and overproduction patterns. Many modifications have occurred in Ngawbe ways of life and will be explored in greater detail below; however, Ngawbe ways of life offer invaluable insight into egalitarian societal organization and anthropologists should be conscious of the fading presence of traditional concepts and patterns (Young 1970:14, 26).

### **3.4. HISPANIZATION**

Colonization of western Panama was relatively light compared to the other areas of the country. Most attempts to penetrate the hinterland terrain for settlement were largely unsuccessful. The Spanish conquistadores were met with fierce opposition and resistance by several groups of Natives when they tried to penetrate the cordillera of western Panama (Cooke et al. 2003). *Reducción* was one method relied on by the Spanish in the Americas; basically it is the process of gathering natives into a single place or town in order to increase their exposure to Christian

religion and ‘modern’ ideologies (Young 1971:211). This was directly opposite to the indigenous settlement pattern of the western Guaymí. They have lived in dispersed settlements separated by considerable distances from the earliest reports in the early 1500’s to modern ethnographic reports (Bort and Young 1985; Bourgois 1988:328-348; Young 1971; Sinclair 1988). The Guaymí rarely concentrate into large centers and early attempts at *reducción* were usually and necessarily aided by Spanish soldiers (Ward 1989; Young 1971:44).

Guaymí traditional settlement pattern is peculiar as *bohíos* are typically dispersed all over the mountain, rarely concentrating into large centers (Barrantes et al. 1982:202; Sinclair 1988; Young 1971: 154). Their territory was assigned reservation status by the Panamanian national government in A.D. 1952 but as of A.D. 1961 many Ngawbe were unaware of their reservation status<sup>5</sup> Considering the parallels between settlement pattern reported by Columbus (1502) and modern *bohío* dispersal, it seems that there has been considerable consistency in settlement patterns for hundreds of years. The consistency of the settlement pattern is reported throughout the ethnohistorical record and is strong evidence to support the argument that the Guaymí were once coastal dwelling peoples whom were forced into the mountainous regions at contact (Young 1970:14). The other possibility is their territory spanned both ecological zones, with more concentrated habitation on the open coastal plains (Cooke 1984). Both positions support assumptions the Guaymí are the descendants of the culture reflected in archaeological investigations of central Panama. Guaymí populations potentially fled to the inaccessible mountains in greater numbers when the Spanish settlers began to settle amongst them which effectively led to “the disappearance of distinctively Indian culture on the coastal plains” (Young 1970:14).

Beginning in 1968 (with the Torrijos government) and continuing today, development-oriented projects entice the Guaymí to move progressively towards a cash-based economy (Bourgois 1989; Young with Bort 1999, 2001). Natives have been confronted with the need to cope with “planned national development” within their ‘reservation’ or territory (Bort and Young 1985). Some notable projects include copper mines, an oil pipe line, a hydroelectric dam, and the general improvement in infrastructure such as roads, water lines, sewage, and electrical lines. All

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<sup>5</sup> Conflicting reports about this date as Baloco and Cerrud (1963) claim reservation status was asserted by Law 18 of 1934

of these modern pursuits are increasing the push of modernization (Young 1971; Bourgois 1988; Loveland and Loveland 1982).

Transportation and communication infrastructure in the Republic of Panama have been drastically improved and although infrastructural improvements in these western provinces is relatively slow compared to large cities it has taken off in recent years. The increased frequency of contact is fuelling the destruction of existing socio-economic systems (Bourgois 1988; Bort and Young 1985; Young with Bort 2001, 1999). For the purposes of my exploration; however, these modern trends towards modernization are notable but with regards to the traditionality of the *balsería* there has been little cultural influence from the Spanish or other colonial forces until the ritual was completely banned in 1961. The *balsería* was discontinued before many of these recent modernizing trends had a fully developed and subsequently they did not alter the purpose of or logistics of the *balsería*. The Guaymí are a proud people and strive to maintain traditional customs and the durability and stability of Guaymí society has been attributed to a number of intergroup characteristics, such as pride for traditional ways (Young 1971). They have been in contact with western civilization for over four hundred years and yet only in recent years has the Guaymí society begun to be altered by outside influences.

### **3.5. THE GUAYMI AND PREHISTORIC CHIEFDOMS OF PANAMA**

The presence of clearly ranked societies in central Panama has been firmly established primarily through mortuary excavations (Cooke 2004:293; Cooke et al. 2000:155; Briggs 1989). I suggest the modern and ethnohistoric Guaymí are the descendants culturally, genetically, or some combination, of both of these prehistoric chiefdoms. Unfortunately the inherent limitations of the ethnohistorical and archaeological data constrain our understanding of the social organization of the Guaymí in the period directly before and after contact with Europeans (Loveland and Helms 1976). The little data we do have is primarily ethnohistorical, complimented by pockets of archaeological investigations.

The Espinosa expeditions of A.D. 1873 and A.D. 1892 made contact with the peoples “from the coastal areas to the south and east of the Chiriquí mountains” (Young 1970:12) and

tales written by early pioneers include reference to larger chiefdom level societies, suggesting that there was a considerable degree of social ranking and wealth inequalities at the time of contact near the coast (Espinosa 1864). I suspect that these encounters were with Guaymí populations. This is supported by the folklore stories told by Guaymí elders. The stories make reference to ancestral chiefs, slaves, and chiefdoms (Minelli 1976); no ethnohistoric accounts of the Ngawbe after the seventeenth century mention slave classes or a well defined socio-political system (Espinosa 1864; Santo Tomas 1682). These stories could be supporting evidence of pre-contact exposure by the Guaymí to more grand locally developed social organization.

The suggestion that the peoples encountered during the Espinosa expedition (A.D. 1864) were direct descendants of the Guaymí remains speculation, as there is no definitive evidence that these peoples east and south of the mountain were Guaymí. Archaeology in both these regions (western and central Panama) was once “virtually non-existent” (Young 1970:12) but more recently small successes were made via excavations (Cooke 1992, 2002, 2003; Briggs 1989; Linares and Sheets 1980). It is crucial to explore the exact relationship between the coastal chiefdoms and the modern Guaymí to answer important questions such as: Did the Guaymí retreat into mountains? Or do “the mountainous Guaymí represent a large partially integrated peasant substratum of the coastal chiefdoms” (Young 1970:23)? Tracing out this exact relationship would help to solidify arguments that the *balsería* was an important social mechanism to the prehistoric chiefdoms of the Central Panama Region (Haller 2004; Menzies 2006; Young 1971).

The archaeology done in both western and central Panama (Briggs 1989; Haller 2004; Linares and Ranere 1980; Linares and Sheets 1980) has been complimented by phonological and linguistic studies (Spielman et al. 1979). Genetic studies have been conducted on the western Ngawbe in an attempt to shed some light on exactly how Panamanian indigenous groups ‘fit’ into the early human migrations in the Americas. Researchers speculated and tested a connection with the Yänomama of Brazil and Venezuela to the Guaymí of Panama and Costa Rica but the results have been largely inconclusive (Spielman et al.1979:384).

The Smithsonian Tropical Research Institute in Balboa, Panama has conducted more recent genetic studies by sampling a Ngawbe population from across their territory range and compared their mtDNA to two other Amerind groups to the extreme south and extreme north (the Chilean Mapuche and the Pacific Northwest’s Haida, respectfully). The results of the

genetic comparisons display the Ngawbe exhibit “the lowest mtDNA central region sequence diversity reported for an Amerind group” (Kolman et al. 1995:275). Based on these results researchers speculated the native group passed through a population “bottleneck” at approximately 6800 years before present. This means that the ‘bottlenecking’ occurred prior to Spanish contact, thus representing “a *Chibchan* ethnogenesis” (Kolman et al. 1995:275).

On a more localized scale, Guaymí genetic statistics (specifically data on 40 red blood cell enzymes, antigenic blood groups and serum proteins) have been compared with other tribes in Lower Central America and northern South America. The researchers (Barrantes 1982; Chakraborty 1988) also concluded genetic patterns among the Guaymí, “appear to be similar to immediate *Chibchan* neighbours to the east and west” (Barrantes 1982:201). The genetic studies suggest that the *Chibchan* peoples, including the Guaymí, are related to each other all throughout Central America, but we cannot infer anything about Ngawbe settlement in prehistory, apart from the fact that they do not represent a migration from another part of the Americas.

Next I thoroughly explore the *balsería* among the ethnohistoric Guaymí. I use ethnographic, ethnohistoric, archaeological observations and quantitative analysis to explore the great social significance of the *balsería*. Then I address the potentiality of *balsería* being an avenue to social mobility in the prehistory of Panama, with special attention paid to the time period when chiefdoms dominated the Central Panama Region.

#### 4. THE BALSERÍA (KRUN)

The *balsería* (also known as *krun* in *Ngawbére*) was an annual event typically held in March involving two neighbouring tribes to compete in a ritual stick game associated with massive feasting and drinking of *chicha* (fermented maize beer). Unfortunately the origins of the ritual ceremony are unknown but it is generally accepted some form of the *balsería* was practice in prehistory and some scholars have made the link between the *balsería* and warrior training necessitated by the conflict between chiefdoms in the Central Panama Region (Haller 2004:132). The event lasted four days, and only on the third day is the actual game of *krun* played. Sixteen men (called *balseros*); eight from each side are chosen to commence the *krun* by the primary aggrandizer, or host (the *kububu*) and by his *edabáli*, a term meaning his equal and opposite from the visiting tribe (Young and Bort 1976:77). After the men take their position on the *llano* (flat and grassy ceremonial space) they hurl large carved sticks aiming at their opponent's ankles (Torres de Araúz n.d.). The men were chosen from each tribe based on "physical prowess, industriousness, intelligence, and generosity" (Young 1971:210) and they were representative of their entire community. Only men participated in the actual playing of *krun* but entire families were involved in preparations and ritual feasting (Torres de Araúz n.d: 5-6), although some young women were selected by the *kububu* to specifically serve his *edabáli* (Young 1971).

The preparations for the *balsería* start well before the actual games begin. The initiating of the event and its success was dependant on the sponsor's legitimate and sizable social position in his community (Torres de Araúz n.d: 2). Only after the *kububu* is confident of his kinsmen's support is he able to send a messenger to a neighbouring community leader. The principle host, or *kububu*, sends an invitation to the neighbouring chief who should dwell some distance from the host's tribes territory. The messenger's status was unimportant except that the *kububu* would never deliver the message of an upcoming *balsería* personally, as it would have been below his dignity (Torres de Araúz n.d.). The messenger carried a string with knots pre-tied in it, known as a '*k bwa*' in *Ngawbére*. Each knot symbolized a day and the total number of knots then, represented the remaining days until the *balsería*. The '*k bwa*' system ensured congruence

between community's preparations. The messengers periodically blew on conch shells so that their arrival was well advertised to the village (Loveland and Helms 1976:43; Fray Adrián de Santo Tomás 1682: 99). Acceptance of the invitation was signified by the return of a *k bwa* string back to the *kububu*. The *k bwa* was typically sent three months prior to the beginning of the *balsería* in order to give the *edabáli* (man accepting challenge) time to prepare for the journey (Loveland and Helms 1976; Torres de Araúz n.d.; Young 1970, 1971).

After the invitation was officially accepted, preparations began immediately (Torres de Araúz n.d.). The wooden sticks used in the *krun* (called *balsas*) are cut and left to dry for several weeks to dehydrate and lighten for use during the *krun* (Young 1976:43). The *balsas* were made only from the *Ochromo Lagopus* tree and their preparation, for both sides, was the responsibility of the *kububu*. The sticks were cut in 5-6 foot-long sections and were typically about 3 inches in diameter at "the business end" (Young 1971:205). Neither end was pointed, instead rounded to avoid serious punctures of vital human organs (Young 1971). *Chicha* was thought to be the life blood of the *krun* (Torres de Araúz n.d.) and its preparation also began early. The ample feasting of *chicha* during the entire four day event in a competitively charged environment would have inevitably led to some conflicts.

All of the preparations, planning and food procurement displays the large significance the *krun* had to the Ngawbe and it has been suggested the ritual served as a 'rite of passage' for potential leaders involved in the political economy. If a man possesses charismatic qualities: strength, fortitude, intelligence, and leadership; and is able to express them publicly (via the *balsería*), then his rise to prominence is practically ensured (Young 1971:206, 1976). A potential sponsor's generosity is key because it creates the social debt require to initially gain prestige (Young 1970, 1971; Mauss 1990). The Guaymí are an egalitarian society and social power is not inheritable; however, a son of an aggrandizer who exemplifies respected characteristics would have been very likely to host a *krun* as well. A *kububu* was respected to the day he died and some individuals would continue to be revered by the society well after passing into the next-life (Torres de Araúz n.d.). This was the case observed by Young when a *Cerro Mamita* man whom sponsored a A.D. 1948 *balsería* and died three years later in A.D. 1951, was still widely respected and talked about by locals (Young 1971:211). The *balsería* was much more than a drunken party to vent anger and aggression in a controlled environment; it more importantly, the

last of a series of steps that had to be taken to be recognized as a man of importance (Young 1971:212).

#### 4.1. EARLY INTERPRETATIONS

The *balsería* is described in sufficient detail by Spanish missionaries and it has been inferred from early reports that the *krun* existed and was practiced by pre-contact populations of central Panama (Adrian de Ufeldre 1682; Oviedo 1944; Torres de Araúz n.d.). The first interpretation of the *balsería* was produced by Fray Adrian de Ufeldre in A.D. 1682 and apparently the religious missionary did not approve of the indigenous rituals, referring to them as “ye beastly customs of ye savage” (Adrian de Ufeldre 1682:98). Fray Blas José Franco (1882) also recorded a primitive stick game during his visit to the New World prior to A.D. 1882 and only three years later in A.D. 1885 A.L. Pinart visited the Río Cricamola region in present day Panama and recorded watching a game reminiscent of the modern *balsería* (Young 1970). Little by way of social significance or anthropological analysis is offered by these early writings; however, they do accord well with ethnographic information regarding the *balsería* collected to date (Helms 1976:38; Young 1970, 1971; Young with Bort 1976).

Other early interpretations have suggested that the *krun* social event was connected with crops, particularly with the plenty of agriculture (Young 1971:204). The notion was introduced by Fray Adrian de Ufeldre (1682) who suggested that the *balsería* was as associated with the *píva* peach-palm (*Guilielma gasipaes*) harvest. Frederick Johnson (1948) also embraced this idea a connection between certain crops and feasting rituals. These interpretations, according to Young, are a “superficial attempt at explanation in terms of social purpose” (Young 1971:41). He notes, in disagreement, that just because a festival occurred during the cycle of certain fruits or plants does necessarily dictate that the *balsería* was directly connected with an agricultural practice or certain species of food (Young 1971: 204). Furthermore, the Guaymí have other festivals to celebrate agriculture, for example the *Miag* festival (Johnson 1948).

Literature addressing the *balsería* is not limited to scholarly and religious pursuits. Peggy Poor (1956) made the *krun* temporarily famous in pop-media in the 1950s. Poor was a journalist

and amateur adventuress who, according to her article, witnessed a *balsería* also near the Cricamola River in Panama. Her article erroneously claimed that wives of the players, property, and belongings were bet on the results of the game (Poor 1956). ‘You Bet Your Wife’ ran in *Natural History Magazine* in A.D. 1956 and in Young’s (1976:39) mind Poor’s contribution has single-handedly caused the greatest misunderstanding of what the *krun* is all about . Her error could have been formed through an untrained observation of *krun* activities. Trade and exchange on the last day of the ritual was sometimes accompanied by the exchange of women between communities.

Prior to Poor’s article, Johnson (1948) also claimed wagers on the outcome of the *krun* were made by important community members and the stakes included property, goods, and the betting of wives (Johnson 1948). Young speculates that both interpretations were erroneous after interviewing men who participated in *krun*; “We play to play, that’s all” explains one man during the course of a mid-1960s interview (Young 1976:41). Some interviewees also pointed out that women sometimes left with the men other than those with whom they arrived; but this was the result of personal decisions and not due to the outcome of a wager (Young 1976).

#### **4.2. SOCIAL SIGNIFICANCE OF THE *KRUN***

If the significance of the *krun* was neither related to agricultural rituals as Spanish missionaries claim nor gaming-like situation where one could wager his land, possessions, and wife as Poor claimed, then what significance did this extinct stick game have to the local Guaymí who practiced it? Why would ample preparation be invested to host a large feast and give away so much, seemingly with no strings attached? As Mauss (1990) would say, there is no such thing as a free gift. By sponsoring a *krun* ritual, both the *kububu* and his community would elevate their social status. It has been suggested the *krun* provided Guaymí society with a route to social mobility; an arena to achieve social prestige and thus socially reanked society.

After the community recognizes the potential of a man to sponsor a *krun*, that man will be invited to meetings called *cabildos* which are held to settle disputes on land claims, personal grievances, damage to crops, and any other problem that requires a mediator (Young 1971). The

leader of these meeting is called a *corregidor*, and in prehistoric times he would have been a chief or *cacique*. If the man (invited because of successful *krun* sponsorship) contributed intelligently to these meeting then his prestige will be further enhanced. If he enjoys continued success, the mountainous Ngawbe people will come from great distances solely to request his arbitrator skills (Young 1971:209). All of these steps are critical to becoming a community leader among the western Ngawbe; they must facilitate a *krun* feasts and display physical ability and courage that separates him from the average *balseero* before becoming a community leader (Young 1971).

The *krun* was always associated with feasting which was crucial to attract large numbers of people and display one's social influences in their community via allocation of food. Communal feasting has been a method of stimulating social cohesion as long as humans have been hunting food (Hayden 1995, 1998). To supply enough food to hosts thousands of individuals was the responsibility of the primary aggrandizer who desired to publicly assert his or her power. The ritual nature of *krun* allowed for a consistent system of sociopolitical ascension (Young 1976; Young and Bort 1976).

It has also been suggested the annual event served to provide systematic periods of peace in pre-history (Young 1976:47) in times when warfare and conflict were very common in Central America (Haller 2004:37; Helms 1979; Lothrop 1950; Linares and Sheets 1980; Redmond 1994). The *krun* celebration and feast would have allowed trade and exchange of resources and knowledge to commence annually without being disrupted by competitive nature of chiefs and chiefdoms (Loveland and Helms 1976:29). As mentioned, the *krun* was a four day ritual celebration among the contemporary Guaymí, which would have provided enough time for social cohesion and alliance building by quelling hostilities for at least the four days.

### **4.3. THE NUMBER FOUR**

The number four is entrenched in the events surrounding the *krun* ritual as well as in the stick-game itself. Many ritual activities are done in sequences and multiples of four. For example; the

event lasted a total of four days; eight men from each side participated in the game itself. Four players lined up beside each side of the *balsa* rack and each threw a *balsa* four times each; This is followed by a quick refill of *chicha* (generally in sequences of four gulps), then four more throws each (Torres de Araúz n.d.). Furthermore, the number four is not only significant during ritual feasting events, it apparently manifests itself in other aspects of Guaymí life and represents, “correctness, properness and pattern fulfillment” (Loveland and Helms 1976:48).

The number four also makes repeated appearances in rituals analogous to the *balsería* in San Blas society. The San Blas Natives are also known as the *Tule* Indians, a branch of the *Kuna* tribe the islands of the *Archipelago de las Mulatas*, Panama. The *Kuna* communities are dispersed down the Atlantic coast between San Blas Point and Columbia (De Smidt 1948:10) and they practice the *chicheria* (as do the Ngawbe). The ritual provides an important social function for the San Blas natives as *chicherias* allowed the family, specifically the father, to declare the availability of his daughter for marriage or similar celebrations (De Smidt 1948). Similarly to the *balsería*, ritual activities are done in sequences and multiples of four and “the number four has a special significance among the natives so that drinking, dancing and blowing of smoke is generally done in series of four or multiples thereof” (De Smidt 1848: 73).

#### **4.3.1. Day one: ‘Ni kede b da’**

The arrival of the rival *edabáli* and his large entourage to the hosting tribe’s territory was a much anticipated event (Torres de Araúz n.d.). Once the rival tribe were close to the site of the *balsería* the *kububu* himself would head into the fringes of the jungle to inform the approaching opponents where they were to spend the night (Fray Adrián de Santo Tomás 1682: 91). It was presumably considerably easy to sense the approaching of thousands of individuals traveling in unison while periodically blowing on conch shells (Torres de Araúz n.d.). The visitor’s campsite was always located near the ritual field (*llano*) where the *balsería* is played. The chief also brings *chicha* and food for the people who were probably quite hungry from the long trek. The rest of the day and night are known as ‘*ni kede b da*’ in *Ngawbére* or “the waiting time” (Torres de Araúz n.d.; Young in Helms 1976:44). The first day functionally served as a large ‘meet and greet’ for new participants of the *balsería* and allowed others to be reunited with their *edabáli* from made during previous *krun* rituals.

#### 4.3.2. *Day two: 'Nw)de n)ere'*

The next day is the first full day dedicated to *krun* activities. This day is called “the watching time” or in local dialect ‘*nw)de n)ere*’ and begins with the *kububu* leading his *edabáli* by the hand to a specially prepared place different from the campsite, directly opposite of the *kububu* and his closest followers (Torres de Araúz n.d.). The leaders of each side publicly display their respect for each other by holding hands for the entire presentation. Some men who have already established their own *edabáli*, perhaps from a previous *balsería*, follow the example of the leaders by guiding their rivals by hand to the site (Torres de Araúz n.d.). Large amounts of *chicha* and food are constantly offered until everyone becomes thoroughly drunk, pass-out, or both (Young 1976:44). By the end of this first complete day of ritual, most men and many women become completely inebriated and dance and sing all night long (Torres de Araúz n.d.).

#### 4.3.3. *Day Three: 'Krun n)ere'*

The third day requires that *balseros* and their families begin preparations before the sun comes up; this is the day of actual *krun* playing (Torres de Araúz n.d.). Face painting and last minute alterations to their finest garments are prepared (Young 1971). Feather headdresses, beaded necklaces and stuffed animals skins are all saved for the third day which is known as ‘*krun n)ere*’ in Ngawbére or “the playing time” (Torres de Araúz n.d.). *Balseros* use a special name during the *krun* which is only name they have during the festivities. Interestingly they apparently never call themselves by this special name and when ritually asked what their name is they simply tell the opponent to ask his brothers, referring to his teammates (Torres de Araúz: n.d; Young 1976: 45).

Two balsa sticks are reserved to be the first thrown in the *balsería*. These sticks are identified by a large leaf wrapped on one end of stick (Young 1976). The *balsas* are at opposite side of a rack of sticks and only after a signal from the *kububu* players commence throwing at their *edabáli* and the process is repeated four times and then all men break to drink *chicha* again. Interestingly, the *kububu* had to appoint men to guard the *balsa* rack to ensure large weapon like sticks were not used to resolve a dispute fuelled by drunkenness the day prior to actual *krun* (Torres de Araúz n.d.). During the game careful aim was taken to hit only an ankle or calf of the

leg of their opponent. A hit to anywhere else on the body was considered a foul and usually caused a surge of anger from the crowd (Young 1976:45). Injuries were quite common considering the size of the sticks used and the amount of *chicha* consumed the day of the *krun*. After an exhausting day of *balsaría* playing, at approximately six in the early evening the primary aggrandizer (*kububu*) gives the order to collect the ritual sticks, the game dissolves and is officially over. After the *balsas* are collected, ritual feasting of *chicha* is again continued into the night (Torres de Araúz n.d.).

#### **4.3.4. Day Four: ‘Krun hondrin n)ere’**

The fourth and final day is “the departing time”, in Ngawbére ‘*krun hondrin n)ere*’ (Torres de Araúz: n.d; Young 1976:47). The *kububu* again publicly leads his *edabáli* by the hand to his camp or *bohío* and publicly offers him more *chicha*; this final brew or maize beer is especially reserved for the fourth and final day and was of higher quantity (Young 1971,1976). Better quality *chicha* meant during production it was left for a longer fermenting time and thus has higher alcohol concentration (Jennings 2005: 245). The rest of the visiting group consumes all but a fraction of the *chicha*.

At this point immediately prior to the departure of the visitors, they are provided with cooked and uncooked food stuffs; including meat, rice, bananas, and beans for the long journey home. In a notion of reciprocity the departing men return a small portion of the gift back to the ritual opponent (Torres de Araúz n.d.; Young 1976). Borrowing from Geertz’s (1973) symbolic theory, Young offers that the exchange is symbolic of “the enduring nature of the *edabáli* relationship and the pattern of reciprocity that is inherent in it” (Young 1976:50). When generous proportions are given they are typically redistributed to those individuals who were less fortunate and perhaps did not find an *edabáli* (Torres de Araúz n.d.). Lastly and inevitably, the remaining *chicha* is consumed and the teams respectfully part ways (Torres de Araúz n.d.; Young 1971:212, 1976).

## **4.4. HARMONY AND DISCORD**

The *krun* fits well with Raymond Firth's (1951) classic definition of a ritual "as a kind of patterned activity oriented towards control of human affairs, primarily symbolic in character" (Firth 1951:222). The *krun* is analogous to other ritual ceremonies involving feasting such as the Potlatch, and like the Potlatch many consider the *krun* a social system, a self-regulating ritual for the public (Young 1976). In its entirety, from the ritual exchange, gift giving, feasting, socializing and actual playing of the *balsería* and the four day celebration "displays both the ideal of harmonious relationships and the inevitable discord that characterize Guaymí life" and "beyond this gross level of symbolic representation it is possible to examine the symbolic meaning-content of the *krun* as ritual" (Young 1976:47). The adoption of an alternative and especially reserved name by *balsero* during the event could be simply interpreted as a way to conceal his identity for the event. The deep analysis the symbolic meaning of the use of a different name for the *krun* is that the Guaymí embrace the idea that a man is not himself during the *krun*, but he assumes a "different and separate identity, an alter ego" which can only be understood by the witnessing of a *balsería* (Young 1976:49).

The *balseros* temporarily adopt an alternative ego allowing them to vent aggression and express harmonious relations with competitors. The alternate- name entails an underlying symbolism that could have allowed participants who have been injured or suffered unconscionable defeat from an opposing *balsero* to avoid avengement or ridicule (Geertz 1971:555). Young (1976) articulates the premise behind the alter-ego well, "this would serve to confine any of the consequences of his interaction with others to the context of the ritual itself" (Young 1976:49). When playing the *krun*, the 'alter-ego' is not allowed to look up (like a human) to see where and when a *balsa* was going to hit them during the game. Instead they meant to "see as deer see, not as men see" (Young 1971:206). I interpret this as the players adopting a deer like awareness, to slyly look over a shoulder, periodically peeking at opposing side of the *llano* during their animal-like movement (Young 1971:206). Players and important men (often retired *krun* players) wear stuffed animal pelts on their back such as a jaguar, giant anteater, and other large fauna (Cooke 2003; Torres de Araúz n.d.; Young 1971; 1976) and it is logical this custom could have been related to the 'alter-ego' adopted by the players similar to the twin animal spirit in many North American Native ideologies (Boyd 1996: 152-155; Codere 1966; Ricketts 1966)

The alter-ego also provides an opportunity for a man with a grudge or ‘bone-to-pick’ with another man to express his anger in his alternate state in a public arena. Fighting and stick throwing allows participants to express their aggression, while being a social mechanism that “prevents antagonism generated at *krun* from escalating into a feud in everyday life” (Young 1976:49). In this respect the *krun* can be viewed as an opportunist ritual that encourages Guaymí community members to vent their aggression under controlled and publicly monitored conditions, “a symbolic expression of discord” (Young 1976:49; Young and Bort 1976). An explanation of Central American warfare in general alludes to the expression of cooperation and conflict as being opposite sides of the same coin (Haller 2004; Redmond 1994). The notion is expressed in the following excerpt from Young’s (1976), *The Expression of Harmony and Discord in a Guaymí ritual* below:

Giving of food and drink forms the basis of friendly relationships in Guaymí society. As a part of the reciprocal relationship this is proper and productive of harmony. But giving within the context of the *edabáli* relationship is so exaggerated that reciprocity becomes difficult, if not impossible, and thus it assumes the proportions of an antisocial act of symbolic aggression. Such exaggerated giving is permissible only within a ritual context where it is kept under strict control by the formal requirements of the ritual. Therefore interaction between *edabáli* symbolizes both the hostility that is customary in Guaymí society and the hostility which is always potentially lurking beneath the surface in social relations (Young 1976:50).

The relationship between the *kububu* and the *edabáli* was vital for the success of a *balsería* (Young and Bort 1976: 77-90). The *edabáli* relationship between two equals is life-long and “both harmony and discord are symbolically represented in the behavioural acts that are prescribed part of the relationship” (Young 1976:49). Opposing *edabáli* never throws *balsas* at each other, (ideally), but this should not be misinterpreted as a lack of competition between the men (Torres de Araúz n.d.). Both men attempt to ‘out drink’ his counterpart and both must reciprocate drink if the other offers it to him (Young and Bort 1976: 80), resulting in a very rapid consumption of the *chicha* which was expected to help cement their relationship permanently (Torres de Araúz n.d.).

Sixteenth-century ethnohistoric accounts talk extensively about the ample warfare that was being practiced throughout Panama. The mention disputes over territorial delineation, slaves capture, and tribute to increase a chief’s social prestige (Oviedo 1944: III 129-130; Helms 1979; Loveland and Helms 1976; Redmond 1994). The Spanish also reported that when the natives were not fighting they were massively trading and feasting (Oviedo 1944; Santo Tomas 1682).

There is mention of war councils and feasting, dancing, and ritual ball game played with sticks (*cañas*), (Espinosa 1864:470; Oviedo 1944: III: 127, 130; Redmond 1994:41). If this is reminiscent of the *balsería* feast practiced by the Guaymí; it could allude to the fact that conflict and co-operation among the Guaymí should not be seen as antagonistic, instead “different manifestations of the same social interaction” (Haller 2004: 130).

#### **4.5. THE MAMA CHI CULT AND THE END OF THE *BALSERÍA***

The *Mama Chi* cult is a Christian sect that has gained growing support since its inception in Guaymí territory in the early A.D. 1960's. The story behind the *Mama Chi* Cult claims that the Blessed Virgin appeared from the bowels of the Fonseca River to a young Native woman (Young 1971:211). The Virgin Mary made herself visible to the indigenous woman in order for her to deliver the ‘great’ message to the Ngawbe people. The original woman who delivered the message to the Guaymí was named *Mama Chi* and until her death was considered a prophetess (Young 1971:212). *Mama Chi*, the female messenger, was never located.

In the A.D. 1960's the locals had an apocalyptic comprehension of the doctrine of the *Mama Chi* cult; “bad things would happen if the people did not follow the new religion” (Young 1971:213) explains one man during an interview. Another informant said that if people did not follow the *Mama Chi* doctrine within a five year period then life-ending destruction of their community would occur (Young 1971:213). *Mama Chi* doctrine's affect on cultural erosion should be noted, because religious leaders push for societal modifications and prohibit ritual drinking events such as the *balsería* and *chicheria*, along with a general ban on all alcoholic beverages (Young 1971:216).

One of the last recorded *balsería* feasts was in A.D. 1961 and it is not coincidence that the *Mama Chi* cult's inception among the western Ngawbe territory occurred in September of the same year (Young 1971:212). The *Mama Chi* cult has symbolically and physically replaced the socio-political functions of society the *balsería* used to provide by banning the *balsería* and placing churches on top of the *llanos*. Meetings of the shamans (*sukias*) and

preachers or *predicadores*, (Spanish term that designates the new leaders of the religion; the Ngawbére term '*kugwe donggaw*' means the same but is very rarely used), now take place where *krun* ritual once was practiced (Young 1971:211). The facade of a restorative nature of the largely transformative *Mama Chi* movement has attracted many followers among Guaymí populations (Young and Bort 1985). The movement presented itself as being aimed at returning to a golden age when contact with the outside world was nonexistent and Latinos were presented as "the source of most evil" (Young 1971:215). Ironically, the *Mama Chi* was effective in banning ritual ceremonies that and hundreds and potentially thousands of years old according to archaeological evidence, (explored in greater detail later).

#### **4.6. THE *KRUN*: FUTURE RESEARCH**

A number of conclusions can be drawn from this discussion of the *balsería*; first and foremost the *krun* should be understood as a ritual (Firth 1951; Young and Bort 1976; Young 1971, 1976) and the social significance of ritual should be considered in any explanation of the event. Second, the *krun* and the relationship of *edabáli* is a symbolical expression of aggression and peace or "harmony and discord" in Young's words (Bort and Young 1976). When *krun* was practiced it provided both social cohesion and an arena for the venting of aggression. Third, the ritual feasting associated with the sponsorship of the *krun* assisted in the selection of a community leader, who had to first pass this 'rite of passage'.

If practiced in prehistory, the *krun* would have integrated neighbouring chiefdoms by creating useful alliances in a competitive environment characterized by chiefly warfare (Briggs 1989; Haller 2004; Lothrop 1950; Redmond 1994). The expression of these chiefly activities; competition, warfare, trade and exchange (Drennan 2001:180-181; Peebles and Kus 1985) in a tightly controlled environment reduced the very real potential for "socially disruptive escalation of hostilities" and made the *krun* socially and economically important as well (Loveland and Helms 1976:38). If leaders did not perform their duties and express "constant evidence of this efficaciousness" (Loveland and Helms 1976:37) their leadership could be doubted. Chiefly

activity provided a means for chiefly competence to be demonstrated publicly. The ability to attract and hold the allegiance of a large core of followers- “relatives, friends, and especially warriors- by generous distribution of food, trade goods, and loot won in battle” was vital to political ascension (Loveland and Helms 1976:37). The *krun* could have provided an avenue or mechanism to accomplish all of the above.

A comprehensive analysis of the production and consumption patterns associated with the sponsorship of a *balsería* is one avenue to address the social significance and organization required to become an important man in Guaymí society. A ‘quantification’ of the food stuffs prepared for a single *balsería* and a comparison to annual family production of a Ngawbe subsistence family will statistically contextualize the sheer amount of overproduction associated with a *krun* feasting ritual. There were many challenges in accomplishing a comparison between communally collected food stuffs recorded for a single *krun* almost 40 years ago (Young 1971), and modern subsistence patterns of the Ngawbe (Sinclair 1988; Bourgois 1988). This is explored in the section below, where I attempt to set up a statistical analysis of *krun*-related food procurement and collection strategies.

## 5. METHODOLOGY

“The introduction of farm animals and gradual depletion of game resources has reduced the importance of hunting and fishing for subsistence activities in most areas [of Guaymí territory]. In spite of these changes, subsistence farming has continued as the mainstay of the Guaymí economic system since the time of conquest...one may suggest that this stability is probably due in large measure to the fact that no major changes have *yet* occurred in the economic structure, particularly in the productive base” (Young 1970:16; post-1964-65 field season, emphasis added).

In order to gauge the significance and find exactly how important the *krun* feast was to the Guaymí, I preformed quantitative analysis of the food production associated with the *balsería*. In conjunction with the quantification of family production the calculated totals allowed me to contextualize the sheer amount of overproduction required for a politically ambitious Guaymí man to organize a *krun* feast. To deem this analysis useful, one must first accept the antecedent that ample food preparation and procurement serves as a reflection of the significance of the ritual feast to those who participate in it.

Constructing a comparison between overproduction for a feast (prior to the banning of *krun*) and subsistence production of a domestic unit (after the ban on the *krun* has been generally accepted by western Guaymí) permitted a contextualization and a barometer to evaluate changes in production patterns. I knew a common denominator would be needed between food stuffs prepared for *krun* recorded by Young (1971:205)<sup>6</sup> and the subsistence production for a family recorded by Sinclair (1988:24)<sup>7</sup> was necessary. The comparison was achieved by first calculating the amount of potential energy available in the food-stuffs from both sources. After the total caloric content of each food-stuff was calculated for both *balsería* overproduction and family subsistence production they were totalled and divided by the number of people responsible for preparing the food. Once standardized a ratio or proportion was calculated and applied. The next

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<sup>6</sup> Based on Young 1971:Table 22 in *Ngawbe: Tradition and Change among the Western Guaymí of Panama*. Information was collected during Young’s dissertational work 1964-65 during a interview with a man from a Cerro Mamita man who participated in a *balsería* in 1948

<sup>7</sup> Based on Sinclair: Cuadro IV: 37 in *Proceso de Cambio en la Sociedad Ngobe (Guaymí) de Panama*. Information collected from farmers and scientific study and surveys conducted during 7 years while Sinclair lived close and with the Guaymí communities.

two subsections will explain, in detail, how I calculated both sources and why I decided on the methodology I used. I also present the results of my calculations to launch into a discussion on the implications of my results and comparison.

## **5.1. QUANTIFICATION OF *BALSERÍA***

Based on Chayanov's rule, Ngawbe populations should have long ago found equilibrium between the drudgery of work and the production/consumption ratio that is required to sustain life (Chayanov 1966). Contrary to Chayanov's rule, the Ngawbe natives of western Panama were producing much more than required by subsistence while in preparations for an upcoming *krun* feast, refer to Figure 5.1 below (Young 1971: Table 22). On the basis of Young's (1971)

Observations, then, I quantified the *balsería* by converting all units used by Young (weight in pounds, number of animals, cakes, fifths of liquid, etc) to the common denominator of energy (measured in kilocalories). This was a complex endeavour because not only were there numerous types of foodstuffs but different parts of same foodstuff (animals) have varying caloric content. The process was further complicated by the fact that certain foods also have changing caloric contents, depending on method of preparation was used (Thompson et al. 2007).

**Table 5.1. Contributions of food-stuffs for *Krun* feast. Based on Young 1971: Table 22**

Contributed and Estimated Quantities				Corn	Beans	Rice	Crude Sugar	Aguardiente	
<i>Caserio</i> Represented	Cattle	Pigs	Chickens	(pounds)	(pounds)	(pounds)	(cakes)	(fifths)	Misc.
Personal contribution of <i>kububu</i>	1	-	4	300	300	300	100	16	x
Cerro Mamita	2	1	7	700	700	700	150	36	x
Cerro Otoe	3	4	10	800	800	800	x	x	x
Cascabel	1	4	6	500	500	500	x	x	x
Cerro Guasimo	-	2	6	300	300	300	x	x	x
Cabuya	-	2	6	300	300	300	x	x	x
Hato Loro	1	2	6	300	300	300	x	x	x
Qda. Chacara	-	2	4	200	200	200	x	x	x
Horconcitos	-	1	2	200	200	200	x	x	x
Hato Culantro	1	2	6	300	300	300	x	x	x
Hato Jobo	1	1	4	300	300	300	x	x	x
Cuchara	-	2	4	200	200	200	x	x	x
Calabasal	1	1	4	300	300	300	x	x	x
Cerro Patena	-	2	5	300	300	300	x	x	x
Viruli	1	2	4	200	200	200	x	x	x
Cana Brava	1	1	4	200	200	200	x	x	x
Cerro Vaca	1	2	6	300	300	300	x	x	x
Casicon	-	2	6	200	200	200	x	x	x
	14	33	94	5900	5900	5900	2750	100	x

Based on Table 22 (Young 1971); "Contributions of relatives to a *Balsería* given in 1948 by a man from Cerro Mamita"  
 \*200 households represented in these *caserios*

For the sake of consistency I calculated averages for each different type of meat, based on various cuts of meat and considered only raw (uncooked) food sources, after primary processing (meaning decapitation and deboning). This method primary processing is analogous to the processing of fauna resources by Native groups from across the Americas (White 1953). Concerning flora resources exploited by the Ngawbe, when the specific genus of plant was mentioned, it was used (see Young 1971: Table 5). When the specific genus was unavailable or ambiguous an average was calculated and used. After all conversions were completed (all foodstuffs were presented as potential energy in total caloric content) they totalled, thus providing me with the total energy available (in kilocalories) of a typical *balsería* feast.

All information provided on the food stuffs for *krun* feast were provided in 1948 by a male informant from the Cerro Mamita hamlet (*caserio*) and the quantities were considered reliable because the man had attended numerous *balsería* feasts. The informant was unfamiliar with modern (or Western) systems of measurement; therefore the quantities in Table 5.1 must be presented as best-guess estimates (Young 1971:208). The total production of food stuffs are thought to be more accurate than the contribution estimates of each *caserío*, as finite details on each hamlet's contribution would have been difficult to recall then the sheer quantity (Young 1971:208). Noting this and the temporal difference between the data sets, I believe for all

intensive purposes an exploration of the Guaymí culture's agricultural patterns has the potential to shed light on the many questions surrounding production patterns of prehistoric chiefdom-level societies. The traditionality of the *balsería* in 1948 would have been relatively unaltered, while modern consumption patterns highlight the drastic change in production patterns in western Guaymí society after the banning of the *balsería* in 1961.

**Cattle.** To calculate the total energy available in an entire cow I first calculated exactly how much edible meat is obtainable from the average cow. I chose to use the United States Department of Agriculture's National Statistics Service (U.S.D.A.) statistics because they were academically reliable and offered a weight range of meat per cow after primary processing, decapitation, and deboning (U.S.D.A. 2002a). The average weight of a cow will vary depending on: age, species, feeding, region or environment, etc. The U.S.D.A. suggests that an adult cow can offer from 550 lbs to 710 lbs of meat (U.S.D.A. 2002a), depending on gender. Based on this weight range I calculated the average steer to be approximately 630 lbs.

$$[550 + 710 / 2 = 630]$$

After finding the average weight of a typical cow I needed to calculate the caloric content of the meat. To keep estimations efficient the average calorie content per pound of beef was calculated and then multiplied by the average weight of available meat from an adult steer. The average caloric content was based on the 12 following cuts of beef: 1. Beef bottom round, all grades, (233.75), and 2. Beef brain (166.67), 3. Beef heart (133.45), 4. Beef short loin, porterhouse, all grades (279.65), 5. Beef short lion, T-bone steak all grades (260.10), 6. Beef short loin, top loin all grades (243.95) 7. Beef tongue (236.30), 8. Beef, all grades with fat (259.25), 9. Beef chuck arm pot roast, all grades (293.25), 10. Beef, Brisket, flat (238.00), 11. Beef, chuck, blade roast, all grades (282.20), and 12. Beef, chuck, clod steak (231.10).<sup>8</sup>

$$(238.14 \text{ kcal}/85\text{grams}) / 3 = 79.38 \text{ kcal/ ounce (or 28.35 grams);}$$
$$79.38 \times 16 \text{ (ounces per pound)} = 1270.08;$$
$$[270.08 \text{ kcal per average pound of beef}]$$

The average raw cow (630 lbs), then, contains 800,147.60 kcal of energy, after decapitation and deboning. This made total 'cow calories' for *balsería* readily calculable, as there were 14 head of

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<sup>8</sup> All energy contents in brackets are expressed in kilocalories (kcal) and based on an 85 gram portion. Portion calculations are presented in first set of brackets only; as per the rest of this section. Values are borrowed from *Nutrition: a functional approach*, by Thompson et al. (2007).

cattle donated in total (refer to Table 5.1). This methodology was followed for all faunal resources.

**Pigs.** The average amount of edible meat available in a hog or pig after beheading and deboning was calculated again based on U.S.D.A. statistics of the total obtainable pork available on a typical male (186 lbs) and female (165 lbs) swine was 175.5 lbs (U.S.D.A. 2002b).

$$[186 \text{ lbs} + 165 \text{ lbs}/2 = 175.5].$$

To calculate the average amount kilocalories per pig, three cuts were used: 1. fresh ground pork (252.45 kcal per 85 grams), 2. pork composite, loin and shoulder blade (214.20), and 3. pork ham, regular cut, regular fat (232.05) (Thompson et al. 2007:A1-A86). The average calorie content of primary cuts of meat was calculated to be 232.90 kcal/3 ounces sample (or 85grams).

$$232.9 / 3 = 77.6 \text{ kcal per ounce}$$

$$77.6 \times 16 \text{ ounces} = 1242.13$$

$$1 \text{ lb pork} = 1242.13 \text{ kcal};$$

$$[1242.13 \text{ kcal} \times 175.5 \text{ lbs of edible meat}]$$

The total energy offered by an entire average articulated pig is 217,985.04 kcal of energy.

**Chicken.** The amount of meat that the average chicken produces is obviously much less than a pig or cow but many more chicken are slaughtered for a *krun*-related feast, (3 times as many than pig and 7 times as many as cattle), (refer to Table 5.1). According to the U.S.D.A. statistics, on average there is 4.45 pounds of edible meat per chicken (U.S.D.A. 2003), which accords well with Thompson's et al (2007) average weight of 4.37 pounds per chicken. The amount of calories present in this average articulated chicken, whole and raw, (de-feathered and decapitated) is 2228 kcal (Thompson et al. 2007:A1-A86).

**Corn.** Maize or in Ngawbe dialect, 'i', has been a subsistence staple for many years in Central America and is still heavily relied on as a food resource and a ritual commodity for the Guaymí and other Native Panamanians groups (Desmidt 1948; Jennings 2005; Young 1971; 1970; Young with Bort 1999, 2001; Sinclair 1988; ). The proportion of corn contributed to a *krun* was calculated with a special consideration because of the important role fermented *chicha* beer had in ritual ceremonies. As previously mentioned *chicha* was considered the life-blood of the *balsería* because it provided the strength and fortitude (Young 1976:50). Approximately one-third of all maize produced is reserved for *chicha* production to be used in rituals like a *balsería* but also to fund manual labour work parties known as *Juntas* (Young 1971:72; Sinclair 1988: 23).

$$(143\text{g}) / (28.35\text{g/ounce}) = 5.04 \text{ ounces}$$

$$122.98\text{kcal} / 5.04\text{ounces} = 24.11 \text{ kcal/ounce}$$

$$[24.11 \times 16 \text{ (ounces/pound)}] = 390.09 \text{ kcal/pound}$$

The average calorie content of corn is, expressed in pounds, 390.09 kilocalories per pound of maize (Thompson et al. 2007:A1-A86).

**Beans.** The bean harvested by the Guaymí was the common wild bean, *Phaseolus* (Young 1971: Table 5). *Phaseolus* is an umbrella term including a myriad of species of bean; therefore I calculated the average calorie content of four different species of bean: kidney beans (224.79 kcal/8 ounces), navy beans (258.44), white (248.81) and yellow (254.88) beans. Only mature seeds, boiled without salt and that are all available in Americas were included in calculations (Thompson *et al.* 2007:A1-A86).

$$[\text{Average bean} = 246.73 \text{ kcal/8 ounces}; 246.73 \times 2 = 493.46 \text{ kcal/lbs}]$$

Based on my calculations there are 493.46 kcal per pound of the average common wild bean.

**Rice.** Rice is one of the most successful Old World plants to the Americas and has taken a large role in subsistence agriculture of Central American communities since its introduction (refer to Table 5.1, above ). The quantities of rice produced for a *balsería* was equal to traditional staples such as beans and corn (Young 1971:205), attesting to the cultural embracement of rice in ritual and in daily life. The rice cultivated by the Guaymí is *Oryza Sativa* (Young 1971: Table 5), however, no descriptions on the physical appearance of the rice were encountered.

$$(216.45 + 241.80/2) = 229.13\text{kcal/8 ounces}$$

$$229.13\text{kcal} \times 2 = 458.25 \text{ kcal/lb}$$

Thus, not knowing if the rice was long-grained, short, brown or white, I calculated the average caloric content of both brown long grain rice (216.45 kcal/8 ounce serving) and white medium grain rice (241.80 kcal) which was 229.13kcal/8 ounces and post-conversion equals 458.25 kilocalories per pound of rice.

**Crude Sugar.** The sugar cane plant (*Saccharum Officinaruym*) harvested by the Guaymí is known locally as ‘*ibidá*’ and flourishes in the lower parts of the San Felix district and not so much in the mountainous regions in which the western Ngawbe dwell (Young 1971:206). This is one explanation why only the *kububu* and one caserio (Cerro Mamita) contributed sugar based products. Based on the assumption that a crude sugar ‘cake’ (unit offered by Young 1971) is roughly equal to a pound of sugar and using Thompson et al. (2007) which claims that there are 17.43 kcal of energy per 4.6 grams of brown crude sugar, I was able to calculate the total energy content of sugar cakes.

$$17.43 \text{ kcal} / 4.6 \text{ grams} = 3.77 \text{ kcal/gram}$$

$$[3.77 \text{ kcal/gram} \times 28.35 \text{ grams/ounce} \times 16 \text{ ounces /pound} = 1710.07 \text{ kcal/cake}].$$

This converts to 1710.07 kcal per pound or cake of crude sugar (Thompson et al. 2007:A1-A86).

***Aguardiente.*** *Aguardiente* is a distilled alcoholic beverage made primarily from sugar cane (*Saccharum Officinaruym*). The quantity of *aguardiente* involved in a *balsería* is slightly ambiguous, as Young (1971) displays quantities of *aguardiente* in terms of ‘fifths’ (see Table 5.1). Based on conversations with American colleagues, a fifth of distilled liquor is equal 26 fluid ounces. This is consistent with the estimated capacity of liquid containers reported during a ethnographic study of the San Blas Island District (De Smidt 1948:27-29). The alcoholic content of *aguardiente* varies depending on who makes it, what ingredients are used, and what techniques are used in distilling process. Common distilled liquors such as rum, whiskey, vodka, and gin have very similar calories per ounce ratio and they have equal alcohol concentrations (also known as proofs), (Thompson et al. 2007, A1-A86). It is reasonable to assume that modern mass-produced distilled liquors and *aguardiente* share similar proofs and therefore similar energy contents. Rum offers the best analogy because it is also a sugar-based alcohol, and accepting this analogy then, a single ounce of *aguardiente* contains 64.68 kilocalories (Thompson et al. 2007:A1-A86).

$$[64.68 \times 26 \text{ ounces} = \text{kcal/fifth of aguardiente}]$$

Thusly, a fifth of *aguardiente* contains approximately 1,617.32 kcal.

***Miscellaneous.*** In Young’s (1971:205) Table 22 he included a valueless column (see Table 5.1, reproduction of Table 22). This was done to record the presence of other contributions to a *balsería* feast such as tobacco, wild meat, bananas and fish (Torres de Arúaz: n.d; Young 1971). These goods and others were contributed to a *krun* feast, but informants were unsure of their proportions. Among the San Blas various wild prey were mentioned in De Smidt’s (1948) ethnography and he claims that wild birds and various species of fish were heavily used in feasting rituals such as a *chicheria* (De Smidt 1948:40). Additionally, when the letter ‘x’ was used outside the miscellaneous column, it represented that some unknown or undefined quantity was contributed (refer to Table 5.1). I follow the same pattern, concerning the use of ‘x’, in my Table 5.2 below, which presents all of the converted quantities as recorded by Young (1971) to available energy in each food-stuff.

**Table 5.2. Total energy content of a Krun feast. Based on Young 1971:Table 22**

<u>Items Contributed and Estimated Quantities Converted to Kilocalories</u>				Corn	Beans	Rice	Crude Sugar	Aguardiente	
<i>Caserio</i> Represented*	Cattle	Pigs	Chickens	(kcal)	(kcal)	(kcal)	(kcal)	(kcal)	Misc.
Personal contribution of <i>kububu</i>	800147.60 kcal	-	8912 kcal	117029	177489	137475	171007.20	25877.12	x
Cerro Mamita	1600295.20 kcal	217985.04 kcal	15596 kcal	273067	414141	320775	256510.80	58223.52	x
Cerro Otoe	2400442.80 kcal	871 940.16 kcal	22280 kcal	312077	473304	366600	x	x	x
Cascabel	800147.60 kcal	871 940.16 kcal	13368 kcal	312077	295815	229125	x	x	x
Cerro Guasimo	-	435970.08 kcal	13368 kcal	117029	177489	137475	x	x	x
Cabuya	-	435970.08 kcal	13368 kcal	117029	177489	137475	x	x	x
Hato Loro	800147.60 kcal	435970.08 kcal	13368 kcal	117029	177489	137475	x	x	x
Qda. Chacara	-	435970.08 kcal	8912 kcal	78019	118326	91650	x	x	x
Horconcitos	-	217985.04 kcal	4456 kcal	78019	118326	91650	x	x	x
Hato Culantro	800147.60 kcal	435970.08 kcal	13368 kcal	117029	177489	137475	x	x	x
Hato Jobo	800147.60 kcal	217985.04 kcal	8912 kcal	117029	177489	137475	x	x	x
Cuchara	-	435970.08 kcal	8912 kcal	78019	118326	91650	x	x	x
Calabasal	800147.60 kcal	217985.04 kcal	8912 kcal	117029	177489	137475	x	x	x
Cerro Patena	-	435970.08 kcal	11140 kcal	117029	177489	137475	x	x	x
Viruli	800147.60 kcal	435970.08 kcal	8912 kcal	78019	118326	91650	x	x	x
Cana Brava	800147.60 kcal	217985.04 kcal	8912 kcal	78019	118326	91650	x	x	x
Cerro Vaca	800147.60 kcal	435970.08 kcal	13368 kcal	117029	177489	137475	x	x	x
Casicon	-	435,970.08 kcal	13368 kcal	78019	118326	91650	x	x	x
	11,202,060.80 kcal	7,193,506.32 kcal	209,432.00 kcal	2,418,595.20 kcal	3,490,617.00 kcal	3,257,508.00 kcal	4,702,692.50 kcal	161,732.00 kcal	x
<b>Total energy in KiloCalories produced for Balseria =</b>			<b>32, 064, 138.62 Kcal</b>						

## 5.2. SUBSISTENCE PRODUCTION OF A TYPICAL DOMESTIC UNIT

To contextualize the sheer volume of overproduction reported ethnohistorically for *krun*, I needed to calculate the average annual production of a single subsistence domestic unit. Sinclair (1988: Table 4) provided the total annual yield of each staple flora resource (beans, corn, rice, and bananas) of a typical family of five and I added the caloric content of annual faunal resources exploited (also in kilocalories) based on comments made by Young (1971) and Bourgois (1988). When the conversions and summations were completed a ‘barometer’ was provided allowing me to contextualize exactly how socially significant the *krun* was, measured with regards to the overproduction of food stuffs for communal feasting. I should also note here, according to Young’s comments, the consumption of meat was very limited and was not a prime source of protein; “if there is any general inadequacy in the diet, it is the lack of animal protein”

(Young 1971:42-45). Meat was important in Ngawbe peoples during Young's stay in the 1960's but mostly for celebrations and feasting rituals, a trend which accords well with running definitions of social feasting rituals (Dietler and Hayden 2001: 12; Hayden 1995, 2001, 2003). Meat consumption is 'opportunistic' among the Ngawbe, meaning that it was consumed rapidly when available but was not a primary source of protein; and as Hayden (2003:461) "Surplus agricultural production can be invested and stored in domesticated animals, just as money can be put in the bank. Animals can subsequently be consumed to impress guests, given away, or used to create debts".

**Cattle.** The number of cattle one owns was a traditional measure of wealth in Guaymí communities (Young 1971), which is interesting considering the early Spanish chronicles claimed that the Ngawbe society measured a man's wealth according to the number of wives he owned (Santo Tomas 1682; Oviedo 1944). This could have been a misinterpretation as it is prestigious to have numerous wives and polygamy is practiced among the Guaymí (Young and Bort 1976; Young with Bort 1999), but the number of wives owned was not illustrative of his wealth or power (Young 1971:44). Women can own cattle but the prestige associated with them is usurped by the male figure in the family who cares for the cattle exclusively, regardless of ownership. Also, cattle owned by women are more likely to be used a source of protein for the family than cattle possessed by men who often sell cattle at Latino markets (Loveland and Loveland 1982).

Cattle served as an important and reliable source of protein and cash-income for an entire year, "cattle owners sell on average only one animal [cow] per household per year, the income from this is likely to constitute a major portion of the yearly cash income of the household" (Young 1971: 99). Considering Young's (1971:72-81, 97-99) observations and the fact that a typical family will own 3-4 cows (prestigious families can own up to 8 head of cattle but this is atypical), I based the annual family production calculations on the presumption that a typical family will consume about one cow per year, as some cattle would be kept for breeding purposes.

**Pig.** Pork as a protein source was not typically consumed by the Guaymí according to Young's observations in the mid-1960's (Young 1971). Guaymí raised pigs primarily for re-sale in urban Latino markets and also for ritual ceremony gifts during marriages and feasting events such as the *balsería* and *chicheria*. The kububu did not provide any pigs to the *balsería* feast and

he typically provides large shares for each type of food (refer to Table 5.1); perhaps a reflection of the notion pigs served as gifts exclusively, or perhaps only that the *kububu* did not have means to pigs. Thus, the consumption of pig was excluded from the quantification of annual subsistence family production and consumption patterns.

**Chicken.** Contrary to pork, chicken were consumed relatively frequently, averaging about once a week. Young (1971) states that a period of a week or so could pass without any animal protein in the diet of a typical Ngawbe family and even in “a time of plenty”, a household’s protein intake would still be “limited to a wild bird or two, or a chicken, about once a week” (Young 1971:72). Given Young’s observations, I performed calculations under the assumption that the typical Guaymí family consumed on average, one chicken per week, or 52 chickens per year.

**Corn.** I based my calculations on maize on the presumption the average Guaymí person living in the western provinces requires 0.453 kilograms of corn per day (Sinclair 1988), which accords very well with widely-used estimate of maize consumption in Mesoamerica, which states one metric ton of maize is required by the typical Maya family of five individuals for one year, or 0.458 kg per person per day (Coe M.D. and R.A. Diehl 1980). In order to find the family production requirement for one year I multiplied Sinclair’s estimate of 0.453 kilograms by five (individuals) and then by 365.24 (days) to find annual subsistence requirements. After being converted to pound and employing previously caloric content, and I found the average Guaymí family of five people requires at least 1824.99 kilograms of maize per year, not including corn produced for replanting in the next cycle.

**Beans.** Most protein in the Guaymí diet comes from beans (Young 1971: 72-73). The average bean yields 390.09 kcal of energy per pound, as previously calculated. In order to calculate the total annual calories in beans required for a single Guaymí family, I borrowed again from Sinclair’s (1988) agricultural report which suggested that approximately 375 pounds of beans was required for annual subsistence.

$$[375 \text{ lbs/year} \times 390.09 \text{ kcal/lbs} = 156, 038.4 \text{ kcal/year}]$$

This means 156, 038.4 kcal of energy was required to sustain a typical family of five.

**Rice.** Again from previous calculations, rice contains approximately 458.25 kilocalories per pound. Therefore a family of five that requires 400 pounds of rice for subsistence (Sinclair

1988: Table 4) acquires approximately 183 300.00 kcal of energy per year from that rice (Thompson et al 2007:A1-A89).

**Bananas.** The western Ngawbe are becoming more and more engaged in the cultivation of bananas (Bourgois 1988; Loveland and Loveland 1982; Young 1971; Young and Bort 1999) and have heavily incorporated them into their diet. Bananas are even sometimes used in *chicha* production, but only when maize is insufficient and adding additional ingredients to *chicha* typically makes it of inferior quality to ‘pure’ *chicha* (Jennings 2005: 244-245). According to Sinclair (1988: 37) the Ngawbe “*comen bananas todos los días*” and require approximately 0.453 kilograms *per* person daily. The average banana weighs 126 grams and has approximately 99 kcal of energy in it (Olson 2007).

$$99 \text{ kcal} \quad 126 \text{ grams} = 0.78 \text{ kcal per gram}$$

$$0.78 \text{ kcal/gram} \times 28.35 \text{ gram/oz} \times 16 \text{ ounce} = 353.8$$

$$[0.453 \times 356.24 = 363.9 \text{ lbs per year}]$$

$$353.8 \times 363.9 = 128 \text{ 754.26 kcal per year}$$

This means that the average family of five requires 128 754.26 kcal for subsistence requirements. Many more bananas are cultivated by the Guaymí but are reserved for resale to Latin markets (Bourgois 1988). The total energy content of a typical family of five Ngawbe individuals is presented in Table 5.3 below:

**Table 5.3. Total Production of Guaymí Household of Five**

Based on Sinclair 1988: Cuardo IV(Chart 4)- Production and requirement for one Guaymí Family of five individuals					
Product	Seed Quantity Planted	Surface Area Planted	Subsistence Yield	Average Requirements	Requirments of Family
Units	kilograms (lbs)	hectares	kilograms (lbs)	kilograms	kilocalories
MAIZE	27.18 (60)	1 <i>Plantada</i>	815.4 (1800)	453 grams/person/day	711,901.79
CHICHA	13.59 (30)	0.25 <i>sembrada voleo</i>	181.2 (400)	1/3 of the maize for <i>Chicha</i>	237,300.59
FRIJOLES	27.18 (60)	0.5	169.87 (375)	90 grams/person/day (0.2 lbs)	156, 038.40
ARROZ	18.12 (40)	1	181.2 (400)	99 grams/person/day (0.22 lbs)	183 300.00
BANANAS*		(1.5 ha for exported bananas)	(363.9) lbs	453 grams/person/day	128 754.26
<b>TOTALS</b>	<b>86.07kgs (190 lbs)</b>	<b>4.25 hectares</b>	<b>1347.67 kgs (2975 lbs)</b>		<b>1,157,054.98 kcal (with chicha)</b>
Chicken				52 whole/ year	52, 928
Pig				0	0
Cattle				1/year	800 147.6
<b>Total energy per annual production of single family:</b>					<b>2, 270, 368.31 kcal</b>

\*Only additional flora item added to Sinclair's (1988) report

**Comparison.** After all total caloric contents were tallied, recorded, and standardized I divided annual production by *balsería* overproduction. This value is a proportion or ratio and thus can be manipulated numerous ways to calculate different avenues of investigation. Before constructing a comparison between the *balsería* feasts foodstuffs and the annual subsistence

production of a Guaymí family we must standardize the data. As mentioned a typical household among the Guaymí is of five individuals, while the number of households involved in *balsería* production was 200, or a 1000 individuals.

$$\begin{aligned}
 & [32,061,138.62 \text{ kcal} / 200 \text{ households} \times 5 \text{ individuals}] = 32,061.13 \\
 & \div \\
 & [2,270,368.31 \text{ kcal} \quad 5 \text{ individuals per year} = 545,073.66 \text{ kcal per year} \\
 & = \\
 & \quad 0.060 \text{ ratio per year} \\
 & 0.060 \times 365.24 \text{ days} = 22.05 \text{ days of production from a year of subsistence}
 \end{aligned}$$

Results and implications of the quantification and comparison of the *balsérias* overproduction to a typical Ngawbe family's production patterns are discussed in my next section. The quantitative evidence displays not only the sheer investment by the Guaymí into a *balsería* feast but as well highlight the observation that prior to the banning of the *krun*, and Guaymí communities had a motivation to overproduce. The 'switch' in the economic structure had obvious repercussions in the community and has forever altered the culture of the Guaymí peoples.

## 6. DISCUSSIONS AND IMPLICATIONS

By comparing the gross overproduction of food stuffs associated with a successful sponsorship of a *balsería* feast to the annual production of a subsistence Guaymí family I produced some interesting results. I am now able to quantifiably display the sheer volume of time, drudgery, and food invested into a *balsería* feast (based on the assumption that unusually high food procurement and preparation translates to increased social significance), (Hayden 1998; Dietler and Hayden 2001; Mauss 1990). Based on the caloric calculations and conversions, I found that approximately 6.05 % of the total annual production of food from each family involved would be necessarily donated. Approximately 200 households contributed to the feast and each one would have donated on average 6% of their total annual production for a single 4 day event. Each family would donate in accordance with their relationship to the primary aggrandizer (refer to Table 5.1); a household closely related to the *kububu* would sponsor more than other hamlets and the amount of food donated would typically reflect the amount of social prestige expected to be acquired (Mauss 1990; Perodie 2001; Wesson 1999).

In other words, the each family would have to donate two-thirds (22.05 days) of an entire month's continual annual production from each family to accumulate enough food stuffs to host a successful *balsería*. This is obviously a significant value, especially when one considers the lack of overproduction in modern Ngawbe communities. This in a considerable amount of overproduction being funnelled into *krun* ritual feasting and attests to the ritual, political, economic and social significance invested in these networks and systems for the *balsería*. Yet another way to help contextualize and emphasize the huge investment by a Guaymí community into a *balsería* is that it would take a single family of 5 approximately 14.7 years to accumulate enough to successfully host a *krun* celebration. Clearly this was more than only a social event; this was an entire self-regulating system of political ascension extremely important to the former participants of it.

Currently, the Guaymí no longer produce much of a surplus (if any), and most Ngawbe families are self-sufficient (Sinclair 1988; Young with Bort 1999). The sale of agricultural

products is a source for cash income, but of minor importance relative to the total amount of cash that enters the Guaymí economic system. Rice is the most reliable crop to exchange for cash but smaller quantities of beans, corn, coffee, and manioc are also occasionally sold (Young 1971:54; Young with Bort 1999, 2001).

Young noted during dissertational work in the 1960's that when a small surplus was produced, it was rarely brought to the towns from the highland areas because of the drudgery associated with transporting large agricultural yields over long distances. Instead, surpluses were typically redistributed to other highland families who were less fortunate than their kinsmen. The redistributive role in Guaymí society allowed strong men and their families, who are able to produce a surplus due to ownership of productive agricultural lands to become leaders in their communities. The situation is analogous to studies on the Big-men of Melanesia (Sahlins 1972). In Big-man societies, one avenue to status was achieved by acquiring social capitol from the less fortunate agriculturalists to which the Big-men assist with donations of their surplus (Sahlins 1963, 1972). The redistributive role stimulated by overproduction associated with the *krun* is no longer implemented by the Guaymí in the fashion and magnitude it was during Young's ethnographic work. Table 6. 1 below illustrates that the average family barely meets the needs of subsistence (Bourgois 1988; Sinclair 1988; Young and Bort 2001). As a result of this shift in production patterns and tactics, one 'path to power' has been eliminated because of the introduction of western capitalism and the banning of a motivation to overproduce, namely the *balsería*.

**Table 6.1. Typical Guaymí family production and consumption (Based on Sinclair 1988)**

	<b><u>Maize</u></b>	<b><u>Beans</u></b>	<b><u>Rice</u></b>
units	Kilograms	kilograms	kilograms
<b>Annual Average Requirement</b>	826.70	164.30	180.70
<b>Annual Average Yield</b>	<u>815.40</u>	<u>169.87</u>	<u>181.20</u>
<b>Surplus</b>	<b>-11.30</b>	5.57	0.50

Before the *balsería* was banned by the *Mama Chi* Cult in 1961, the feasting around the stick-game played a significant social role in Guaymí society. It was a social and economic system in its self and since being banned, basically a near complete collapse of the market-economy and political economy took place as *krun* was de-institutionalized and replaced with western capitalist understandings of wealth and a cash-based system. Globalizing forces of

modernization must also be considered when exploring the disappearance of indigenous social systems (for example the increasing engagement in cash-based economy by cultivating ‘cash-crops’ such as bananas and coffee). The *krun*, however, played a particularly important role and with its extraction we see an exponential disintegration of overlying structures that provided the Guaymí with economic and political stability (Young 1971).

The Guaymí have been practicing subsistence agriculture using traditional tools and tactics for hundreds of years (Bourgois 1988; Sinclair 1988; Young 1970, 1971, 1976). For the most part however, traditional subsistence agriculture has been maintained as they still rely on traditional tools and methods such as, natural fertilization, machetes, digging sticks (known as *coas*) and hand axes (Bourgois 1988; Haller 2004:117; Young 1971:60-74; Young with Bort 1999). Communities depend heavily on agriculture for survival and a surplus in food production is rare (refer to Table 6.1 and Sinclair 1988: Chart 4).

The lack of motivation to overproduce has reduced production trend and supports the idea that a drastic shift in food production trends took place immediately after the indigenous ritual communal feasting was eliminated from Guaymí daily life.

Elimination of the motive to overproduce meant no avenue to social mobility and thus no socio-political system to regulate and maintain social structure. A rapid dissipation of a surplus production was observed immediately after the inception of the *Mama Chi* and subsequent banning of *krun* (Young 1971:91-94) and more recent ethnographic work also warns that the disintegration of tradition, culture, and language, among other aspects of distinctly Ngawbe life that are fading from existence at an unprecedented rate (Young 1999, 2001; Bourgois 1988:328-248).

## **7. FUTURE WORK**

The archaeology of Lower Central America is just beginning to emerge from decades of scientific neglect and antiquated research. Large tracts of hinterland between eastern Honduras and eastern Panama still remain unexplored. Much of the literature has been concentrated almost exclusively with ceramic descriptions, tribal ascriptions, influences from nuclear America, and impressionistic site surveys. The assumption that Lower Central America served only as a corridor through which ideas, objects, and even people moved back and forth between Mesoamerica and the Andean region colors much of the writing. So much so that one is justified in asking if Lower Central America will ever constitute a viable study unit (Linares 1979:21).

### **7.1. ARCHEAOLGY OF FEASTS**

Feasting has a long history and has occurred at all corners of the earth (Cohen 1977; Dietler and Hayden 2001; Hayden 1995, 1998, 2003; Potter 2000; Wesson 1999). The relationship between ritual communal feasting and archaic societies cannot be comprehensively developed without an “adequately theorized and contextualized analysis of feasting” (Dietler and Hayden 2001:18). The mere identification of ritual feasts, ethnohistorically or archaeologically, will not provide insight to prehistoric social, economic and political dynamics. It is thus necessary to explore the nature of prehistoric feasting in particular and localized cases and make cross cultural comparisons of accounts of feasting ritual. This is done by explaining how and why feasts operated in particular socio-economical contexts which allows us infer more accurate information from the archaeological record (Dietler and Hayden 2001:16).

Archaeology has been employed to explore ritual and communal nature of feasting; however, it is also a complex endeavour in its infancy (Hayden 2001, 2003). Reconstructing social organization from the material remains of economical behaviour a primary goal of excavations (Brumfiel and Earle 1987; Earle 1977) and archaeology thus turn to cultural anthropologist for information examining how economic aspects of culture will leave tangible evidence in the archaeological record. Ethnographies are extremely beneficial because they contain detailed information on the types of goods exchanged and the context in which the goods

were exchanged (Earle 1987:279-280). To the archaeologist, on the other hand, these exchange systems are transparent (Brumfiel and Earle 1987; Earle 1987:280; Peebles and Kus 1985).

Ceremonial areas are thought to be the physical manifestations of large exchange systems in Central America and beyond (Earle 1989). They are of particular interest to archaeologists because they are directly observable; however, they are also very difficult to link to exchange (Earle 1987:283). The Central Region of Panama is no exception; for example a potential ceremonial 'space' including a small mound and a rectangular stone area was observed at Barriles, Panama (but unfortunately never mapped or photographed before farmers levelled the area). Early into excavations of the area archaeologists were perplexed by the general absence of artifacts, as they were finding ample material cultural evidence of habitation in excavation units surrounding the area. This 'empty spot' measured about 75 meters west to east by 50 meters north to south and archaeologists working there wondered whether or not it might have been a buried plaza area where ceremonial activities were held, like a *balsería* (Scott Palumbo: personal communication). Ceremonial spaces can be those generally lacking artifacts, even when exchange and feasting occurs because they're too important to let garbage pile up.

Hayden and Dietler (2001) have attempted to bridge the gap between ethnographers and archaeologists in their text *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power*, offering a comprehensive analysis of the entire concept of feasting in ancient and modern societies from across the globe, including what we should anticipate from archaeological record if feasting was manifested in certain circumstances. The difficulties of comparing and contrasting archaeology and ethnographic work are too numerous to explore in this paper in any justifiable detail; however, when material from each line of evidence coincide together they are invaluable to anthropological endeavours exploring the past.

Concerning the archaeology of feasts Dietler and Hayden (2001) offer other potential physical manifestations and archaeological correlates besides ceremonial centers such as; large hearths, food-storage facilities, deposits of ritual narcotic paraphernalia, serving/preparation vessels, bone dumps, middens and even the remains of the aggrandizers themselves, to name a few (see Dietler and Hayden 2001: Table 2.1). This provides the interested archaeologist multiple avenues of investigation to quantitatively contextualize the presence and distribution of residues of feasts, many of which were discovered by rigorous ethnographic work. Shifting to archaeology of the Central Region of Panama, do we currently have any of these lines of

evidence (of *krun* feasting or otherwise)? If so, does the cultural material coincide with the rise of social complexity or other important periods of development and growth, as identified by Haller's (2004) extensive survey of the Rio Parita Valley?

## **7.2. POSSIBLE IDENTIFIED ARCHAEOLOGICAL CORRELATES OF *KRUN***

There have been a few reports of potential archaeological evidence of *balsería* ritual ceremonies and feasting activities associated the chiefdoms of the Central Panama Region. Evidence is sparse but does offer multiple avenues for further investigations. Again at the small site of Barriles in western Panama, investigations have yielded some stone statues of that are contemporaneous with the periods of chiefly rule (Linares 1980). The largest statue was 2.4 meters tall and most statues were of naked men carrying other men, in what has been interpreted as a ritual gesture (Stirling 1991:269). Another statue was in the form of chiefly throne and some scholars have suggested it could have once been a part of a very large *metate* (Stirling 1991:270)<sup>9</sup>. The large stones were placed adjacent to an open area or “a raised platform about 30 meters by 50 meters, lined with stones slabs and boulders” (Stirling 1991:270). Stirling (1991) identified the delineated space as ceremonial in nature, which would have been an ideal space to practice ritualized warfare training ceremonies, like the *krun*.

Remembering Young's (1976) description of the logistics of the actual stick game, the *krun*, I began to see parallels between the organization of players on the *llano* when initiating a game and the placement of large statues of men and boulders around a large delineated ceremonial space (Stirling 1991). Balseros line up in two opposing rows of 8, directly opposite of their opponents. This line-up effectively creates a large space between the opposing sides when engaged in *krun* (see Young 1967:Figure 1:46). Barriles was abandoned around A.D. 600

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<sup>9</sup> Unfortunately I could not locate a photograph of the megalith in question, however if it was part of a large *metate* this would have interesting implications about potential link between ritual feasts and social organization.

following a eruption at Volcan Baru and the site become completely desolated and uninhabitable due to large deposits of volcanic pumice-like debris (Cooke et al. 2003).

Richard Cooke of the Smithsonian Tropical Research Institute observed a *krun* ritual celebrated at Canquintin in the lower Crimcamola valley, Bocas del Toro province in 1974 (the most recent account of the *balsiería* I could locate) and he pointed out an interesting correlation between prehistoric stone statues at El Caño section of Sitio Conte<sup>10</sup> and the contemporary *balsiería* previously witnessed:

I observed *balseros* [players of *krun*] wearing the following animals: cayman (*Caiman Fuscus*), giant anteater (*Myrmecophaga tridactyla*), tayra (*Eire barbara*), ocelot (*leopardus pardalis*), and jaguar (*Panthera onca*). A stone statue found at El Caño section of Sitio Conte complex depicts a person who wears an animal that appears to be a monkey on his back. On another statue a thick-set male displays a frog figurine dangling from a cord on his chest, which surely represents a golden image as a status symbol (albeit of unreal size) (Cooke 2002:274).

Considering the “regional uniqueness of the stone-lined ceremonial space at El Caño”, a comparison with modern Ngawbe *balseros* was noted by Cooke and is certainly valid (Cooke 2002:274). Successful sponsorship of a *balsiería* meant that you had earned considerable prestige during the course of your life and these men were well respected, sometimes until death and after death, as was the case for a Cerro Mamita man who died in 1948 but was worshipped 3 years later at a *balsiería* (Young 1971:211). Cooke noticed that these well respected men were often the same men who wore stuffed animals on their back during the *krun* ritual ceremony, which they considered to be “symbolic of their prowess” (Cooke 2002:274). These anamorphic stone statues at the El Caño displayed various animals on their back. Perhaps these stone depictions are of previous successful sponsors of the *krun* ritual ceremony who became chiefs and were later immortalized in stone. This opinion requires much more base-level theory in order to support the connection between the *krun* and chiefdoms activity concretely, but it certainly is plausible considering Young’s (1971) and Cooke’s observations.

Yet another pocket of archaeology from Sitio Conte offers potential evidence for feasting rituals in the region. At one time the grand site of Sitio Conte had large statues arranged in a similar fashion to Barrilles but the statues have since been removed and taken to the national museum (Mikael Haller, personal communication). Furthermore, the presence of ‘caches’ in the

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<sup>10</sup> Some scholars believe El Caño is a separate site not a section of Sitio Conte, (i.e. Haller, personal communication), while (Cooke 2002: 273) believes the along with Cerro Zuela, the three sites constitute a “single, very large site”

necropolis which did not seem to contain artifacts associated with mortuary traditions could offer additional supporting evidence of *balsería*-like feasting. Samuel K. Lothrop (1937, 1950) and John A. Mason (1937) were perplexed by the presence of “graves that did not contain human skeletal remains and concentrations of artifacts they called caches” (Briggs 1993: 143). Briggs also conducted many excavations of Sitio Conte and he noted there was no evidence of revisiting the caches (Briggs 1989:72). Prior to Briggs’ work, Linares noted the caches contained “large quantities of tools” (Linares 1977:43). Linares (1977) claimed the caches contained implements for “procuring and processing food consumed by crowds participating in funerary rites” (Linares 1977:44).

Whatever the case, the archaeology of Sitio Conte and surrounding sites in the Rio Partia Valley support the notion that prior to being adapted as a elitist necropolis, Sitio Conte functioned as a “pan-regional meeting-place used for affirming common ancestry and for celebrating ritual games and the funerary rites of esteemed people” (Cooke 2002:273). Viewing Sitio Conte as a pan-regional site suggests its importance transcends the territorial limits of its chiefdom and has notable implications for the prehistoric use of the *balsería* to attract the populations into this central area (Cooke 2002; Haller 2004; Young 1976). Whether funerary rites or feasting associated with the *krun*, or both were being practiced may never be known.

### **7.3. FUTURE STUDY OF *KRUN* RELATED FEASTING RESIDUE**

Ethnohistoric literature and archaeology guide future our research concerning the presence and significance of *balsería* in prehistory. The Espinosa expeditions (1864, 1873, 1994) to the Central Region of Panama in the sixteenth century discussed copious quantities of preserved food stuffs of maize, fish, geese, turkey, and even over 300 smoked deer in a single storage *bohio* (Espinosa 1994:48). The expedition reportedly lived, at ease, for approximately four months on stored corn alone (Sauer 1966:272). Evidence of food storage facilities would be insightful with regards to evidence of feasting (could quantifiably address size, distribution and type of food of the storage units) but little archaeological evidence of storage facilities have been

found to date. Espinosa expeditions (1864) discuss rectangular structures of unknown purpose, which Linares (1977: 72-73) has suggested were similar in function to modern corn cribs but again we have no recorded evidence of these in the archaeological record, associated with feasting.

When ethnohistoric material is combined with site reports from archaeological work in the region we are provided with a general idea of what to look for in up-coming investigations (April 2008). For example at an early open-air archaeological site known as Santa María, a Paleoindian and Early Ceramic site, zooarchaeology has yielded a wide variety of faunal resource exploited by prehistoric Panamanians (Ranere and Cooke 1992: 275-277). In the context of a midden archaeologists have unearthed remains of deer, armadillo, opossum, rabbit, racoon and wild birds (Cooke, R. G. and A. J. Ranere 1984, 1991). While more recently Lyall (2007) and Haller (2004) mention the importance of maritime resources such as shell fish in the Rio Parita valley. As discussed by Lyall (2007) marine resources could have played a pivotal role in social organization and exchange. These are only a few examples of many lines of evidence that should be considered when archaeologically addressing the presence of feasts and its relationship (if any) to social organization.

If the emergence of social complexity in the Río Parita Valley was in some measure associated with socio-economical control of food stuffs and other resources, it is crucial to explore the relative importance of feasting rituals. This alternative avenue has been alluded to by Cooke (2002:274) and Haller (2004:144-5, 186) however, it has not yet been investigated in sufficient detail. Upcoming field seasons in the Rio Parita valley, Panama under project director Dr. Mikael Haller of St. Francis Xavier University (beginning April 1 2008) have great potential to yield evidence of feasting and subsequently quantitatively evaluate whether or not feasting played a role in social development. The mere presence of *balsería* feasting residue in the Río Parita Valley during identified cusps of rapid change and population growth would warrant further investigation to evaluate the role of feasting in social development, (which is exactly what has potentially been recently discovered).

Preliminary analysis of data retrieved from recent excavations at He-4<sup>11</sup> (A.D. 750- A.D.1520) has yielded what could potentially be residue of feasting activities (Bill Locascio,

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<sup>11</sup> Also as known as El Hatillo and Finca Calderón

personal communication 2008). He-4 is a first order site located approximately 3 kilometers southwest of the modern town of Partia, in the Rio Parita Valley. Locascio is confident that his team has found evidence of feasting activity (refer to Figures 7.1 and 7.2 below) but admits that not enough rigorous analysis of the data has been completed to confirm this is actually evidence of feasting. The analysis Locascio has completed is promising because midden 1 (units 26-1,2, and 3; see Figure 1 below) is a very dense deposit of ceramics which date to the Macaracus and Parita periods, while midden 10 (unit 24-8; see Figure 2 below) is comparatively thin and seems only to contain only Late Parita and El Hatillo period cultural material (Locascio, personal communication 2008). The reason this is interesting and promising is because the thin deposit (midden 10) dates to the same time period He-4 was thought to be abandoned according to Haller's (2004) data. Thus, this could reflect a single feast or a series of rapidly occurring feasts just prior to abandonment. By comparison, the dense deposit (midden 1) probably represents a 250-300 year period of feasting deposits (Locascio, personal communication 2008). Ongoing and future data analysis of the artifacts unearthed should add to our understanding of prehistoric feasting in the Rio Parita Valley and the greater Central Region of Panama.



**Figure 1. Potential evidence of feasting at He-4; photo and permission by Bill Locascio PhD Candidate, University of Pittsburgh**



**Figure 2. Potential evidence of single feasting event; photo and permission by Bill Locascio PhD Candidate, University of Pittsburgh**

The next logical step is to conduct excavations that will permit quantitative analysis of feasting and address whether or not feasting was an activity that gave rise to formal social inequality in Central Panama, or if it was more epiphenomenal, developing as a consequence of political leaders desire to impress their community (Locascio 2007). If evidence of the consumption of sumptuary food stuffs appears exclusively or even primarily at first order sites, for example, it could be inferred feasting was a tightly controlled event by the elite (Brumfiel and Earle 1987; Earle 1989; Haller 2004; Menzies 2006). If we encounter evidence contrary to this, that feasting was occurring at all sites (first to third order), it may also carry significant implications for prehistoric social organization. If communal feasting rituals seem to be centralized and primarily found at first order sites such as He-4 we could have evidence consistent with chiefly models that heavily rely on economic control as a means to leadership (Earle 1977:89).

A decentralized pattern of distribution of feasting evidence would reflect a higher degree of household autonomy (Menzies 2006). Reviewing the chronology of cultural development of central Panama it becomes apparent more work addressing the critical time (between Cubitá

A.D. 550- A.D. 700 and Conte A.D. 700- A.D. 900 Periods) when population peaked and burial practices underwent considerable change. If archaeological evidence of feasting in the Río Parita Valley coincides with the aforementioned phases and is addressed in with systematic and comprehensive excavations and we may be able to infer that feasting played a role in political development.

## 8. CONCLUSIONS

The conclusions reached concerning social structure and political organization of the Central Region of Panama are based primarily on excavations of prehistoric 'necropolis' and the subsequent mortuary analysis of sites in Coclé and Veraguas provinces (Lothrop 1937, 1950) as well as settlement pattern surveys and human ecology studies (Cooke and Ranere 1984; Linares and Ranere 1980; Haller 2004). A more comprehensive and collaborative study of Panama, specifically the notorious Darien gap and the coastal plains of central Panama must be undertaken as current archaeological research in these areas is "modest" and should be "targets for future investigation" (Lange 1996:322). Recent archaeological work has allowed a step back from the view of Central America as an "underdeveloped country cousin of [its] more sophisticated Mexican and Andean relatives" (Lange 1993:277). Recent and ongoing Central American archaeological pursuits have shown Panama was fundamentally different from Mesoamerica and Peruvian cultures, geographically and temporally. Considering cultural differences, we should explore the possibility of an "alternative model for social development" in Central America (Lange 1993:285). One potential alternative model of social development, in my opinion, that warrants further analysis is the role that feasting when organized by an ambitious leader or aggrandizer, as has been reported ethnohistorically among the Guaymí of western Panama.

A combination of contemporary theoretical models with comprehensive and systematic archaeological investigations will demonstrate a localized pattern of socio-political development in the Central Panama Region. Centralized patterns presented in diffusionist models of evolution of Mesoamerican civilization have been recognized as inherently limited in their scope, for example the historically accepted "unilinear model of Mesoamerican evolution from Olmec-Maya-Teotihuacan-Monte Alban- [etc] has provided an enticingly simplistic model" (Graham 1992:313). Expansionist models simply do not fit with what is being espoused in ongoing Central American archaeological excavations. Currently accumulating central Panamanian data sets, for example, indicate strong and well-developed, resilient cultural growth, that has been

maintained through local authority and localized autonomy in prehistory (Haller 2004; Menzies 2006; Loscascio 2007).

In summation then, this paper suggests: (1) The *balsería* ritual feast reduced hostility between groups, facilitated trade, and served as a ‘rite of passage’ for Guaymí community leaders. (2) The modern western Guaymí are descendants of the prehistoric chiefdoms reflected in the archaeological record of the Río Parita Valley in central Panama; (3) The prehistoric chiefdoms likely practiced an ancient version of a *balsería* feast. A large feast was sponsored by a charismatic leader of the community which drew large populations into centralized areas to participate in ritualized warfare (*krun*) and ritual exchange; (4) The ritual and communal nature of the *krun* feast allowed potential leaders to engage in politicking and eventually organize the required food stuffs thus cementing their superior position. Effectively this ensured consistent social cohesion in a tightly controlled environment; while the redistributive role of the *balsería* provided reinforced relationships of debt; a method for elite to convert wealthy surpluses into social power; (5) Lastly, this work suggests only through future archaeological investigations can the relationship of the *balsería* feast to the emergence of social complexity in central Panama be comprehensively explored.

## BIBLIOGRAPHY

Adrian de Santo Tomás, Fray

- 1682 Conquista de la Provincia del Guaymí, por el Venerable Maestro Fray Adrián de Ufelde, en reino de tierra Firme. Transcripción en *Hombre y Cultura*, Tomo I, No. 4 Panamá 1965

Barrantes, R., P.E. Smouse, J.V. Neel, H. Gershowitz

- 1982 “Migration and genetic infrastructure of the Central American Guaymí and their affinities with other tribal groups”, Published online 2005, *American Journal of Physical Anthropology* Vol. 58 No. 2 pp. 201-214

Baloco, A.M. de, and L.C. Cerrud

- 1963 “In ensayo histórico y etnológico de los Indios Guaymies ”, Thesis ms, Universidad de Panamá, Facultad de Filosofía

Beck, R. Jr.

- 2003 “Consolidation and Hierarchy: Chiefdom Variability in the Mississippian Southeast”, *American Antiquity* Vol. 68 No. 4, Pp. 641-661.

Bourgois, P.

- 1988 “Conjugated Oppression: Class and Ethnicity among the Guaymí and Kuna Banana workers, *American Ethnologist*, Vol. 15 No. 2 pp. 328-348

Boyd, C.E.

- 1996 “Shamanic Journeys into the otherworld of Archaic Chichimec”, *Latin American Antiquity*, Vol. 7 No. 2 Pp. 152-164

Briggs, P

- 1989 *Art, Death and Social Order: the Mortuary Arts of Pre-Conquest Central Panama*. B.A.R International Series 550, Oxford

- 1993 “Fatal Attractions: Interpretations of Prehistoric Mortuary Remains from Lower Central America”. In *Reinterpreting Prehistory of Central America*, edited by M. M. Graham, pp. 141-168. University Press of Colorado, Niwot

Brumfiel, E. M. and T. Earle

1987 "Specialization, Exchange and Complex Societies: An Introduction" pp 1-16. In *Specialization Exchange and Complex Societies* (New Directions in Archaeology), Cambridge University Press, Cambridge, Great Britain

Carneiro, R. L.

1981 "The Chiefdom: Precursor of the State". In *The Transition to Statehood in the New World*, edited by G. D. Jones and R. R. Kautz, pp. 37-79. Cambridge University Press, Cambridge.

Chakraborty R., P.E. Smouse, J.V. Neel

1988 "Population amalgamation and genetic variation observed on artificially agglomerated tribal populations of Central and South America"; In *Center for Demographic and Population Genetics*, University of Texas, Vol. 43, No. 5, Pp. 707-718.

Codere, H.

1966 *Fighting with Property: a study of Kwakiutl Potlatch and warfare 1792-1930*, University of Washington Press, Seattle

Coe, M. D. and R. A. Diehl

1980 *In the Land of the Olmec, Vol. 2: The People of the River*. University of Texas Press, Austin.

Cohen, M. N.

1977 *The Food Crisis in Prehistory: Overpopulation and the Origins of Agriculture*, Yale University Press, New Haven Connecticut pp. 1-341

Cooke, R. C.

1976 "Rescate Arqueológico en El Caño (Na-20), Coclé". *Actas del Ivo Simposium Nacional de Arqueología, Antropología y Etnohistoria de Panamá*:447-482.

2002 "Rich, poor, shaman, child: animals, rank and status in 'Gran Coclé culture area of Pre-Columbian Panama". Presented at the 9<sup>th</sup> ICAZ Conference, Durham. In *Behaviour Behind Bones*. (ed. Sharyn J O'Day), W Van Neer and A Ervynck Pp. 271-284, Oxbow Books

Cooke R. C. and A. J Ranere

1984 "The Proyecto Santa María: A Multi-Disciplinary Analysis of Prehistoric Adaptations to a Tropical Watershed in Panama". In *Recent Developments in Isthmian Archaeology*, edited by F. W. Lange, pp. 3-30. BAR International Series 212, Oxford.

1992 “Prehistoric Human Adaptations to the Seasonally Dry Forests of Panama”, *World Archaeology* Vol. 24, No. 1; The Humid Tropics (June), pp. 114-133

Clark, J. E. and M. Blake

1994 “The Power of Prestige: Competitive Generosity and the Emergence of Rank Societies in Lowland Meso-America”. In *Factional Competition and Political Development in the New World*. E. M. Brumfiel and J. W. Fox, eds. Pp. 17-30. Cambridge: Cambridge University Press.

Creamer, W. and J. Haas

1985 “Tribe Versus Chiefdom in Lower Central America”. *American Antiquity* Vol. 50, No. 4, Pp. 738-754

De Smidt, L. S

1948 “Giving a Description of their Manners, Customs, and Beliefs”. In *Among The San Blas Indians of Panama*, 155, 6<sup>th</sup> Avenue, North Troy, New York, USA,

Dietler, M.

1996 “Feasts and Commensal Politics in the Political Economy: Food, Power and Status in Prehistoric Europe”. In *Food and the Status Quest: An Interdisciplinary Perspective*, edited by P. Wiessner and W. Schiefenhövel, pp. 87–125. Berghahn, Providence, RI.

Dietler M. and B. Hayden

2001 *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, Smithsonian Institution Press, Washington, DC.

2001a “Digesting the Feast—Good to Eat, Good to Drink, Good to Think: An Introduction”. In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, edited by Michael Dietler and Brian Hayden, pp. 1–20. Smithsonian Institution Press, Washington, DC.

Drennan, R. D.

2000 “Chapter 7: Games, Players, Rules, and Circumstances: Looking for Understandings of Social Change at Different Levels” Pp. 177-195. In *Cultural Evolution: Contemporary Viewpoints*, edited by Fienman, G. M. and L. Manzanilla. Kluwer Academic/Plenum Publishers, 233 Spring Street New York, N.Y.

1996 “One for All and All for One: Accounting for Variability without Losing Sight of Regularities in the Development of Complex Society”. In *Emergent Complexity: The Evolution of Intermediate Societies*, edited by J. Arnold, pp. 25-34. Archaeological Series 9. International Monographs in Prehistory, Ann Arbor.

1987 "Regional Demography in Chiefdoms". In *Chiefdoms in the Americas*, edited by R. D. Drennan and C. A. Uribe, pp. 307-324. University Press of America, Lanham, MD.

Earle, T. K

1987 "Chiefdoms in archaeological and Ethnohistorical Perspective", *Annual reviews in Anthropology* Vol. 16 Pp, 297-301

1989 "The Evolution of Chiefdoms" *Current Anthropology*, Vol. 30, No. 1 (Feb.), pp. 84-88

1991 *Chiefdoms: Power, Economy and Ideology*, Cambridge University Press, Great Britain. Schwartz, D. W. General Editor

1997 *How Chiefs Come to Power: The Political Economy in Prehistory*, Standford University Press, Standford, California, U.S.A By the Board of Trustees of the Leland Standford Junior University

Earle, T. K. and J. E. Ericson

1977 "Exchange Systems in Archaeological Perspectives"; In *Exchange Systems in Prehistory*, Studies in Archaeology, Academic Press Inc. (London) Ltd. Printed in U.S.A, 111 Fifth Avenue N.Y., New York

Espinosa, Gaspar de

1864 Relación hecha por Gaspar de Espinosa, Alcalde Mayor de Castillo del Oro, dada...Pedrarias de Avila, Lugar Teniente General de aquellas provincias, de todo lo que sucedió en la entrada que hizo en ellas. In *Colección de Documentos Inéditos del Real Archivo de Indias*, edited by J. F. Pacheco. Imprenta Española, Madrid.

1873 Relación e proceso quel Licenciado Gaspar De Espinosa, Alcade Mayor, hizo en el viaje...desde esta Cibdad[sic] de Panamá a las provincias de Paris e Nata, e a las otras provincias comarcanas. In *Colección de documentos Inéditos del Archivo de Indias*, edited by J. F. Pacheco, pp. 5-119. vol. XX. Imprenta del Hospicio, Madrid.

1994 Relación hecha por Gaspar de Espinosa, Alcalde Mayor de Castillo del Oro, dada...Pedrarias de Avila, Lugar Teniente General de aquellas provincias, de todo lo que sucedió en la entrada que hizo en ellas. In *Indios y Negros en Panamá en los Siglos XVI y XVII: Selecciones de los Documentos del Archivo General de Indias*, edited by C. F. Jopling, pp. 42-58. Centro de Investigaciones Regionales de Mesoamérica, Antigua, Guatemala; Plumstock Mesoamerican Studies, South Woodstock, Vermont.

Firth R.

1951 *Elements of Social Organization*. Boston: Beacon Press

Fried M. H.

1967 *The Evolution of Political Society: An Essay in Political Anthropology. Studies in Anthropology*, Random House, New York

Fuson R. H

1964 "House Types of Central Panama", *Annals of the Association of American Geographers*, Vol. 54, No. 2, (Jun) Pp. 190-208.

Geertz, C.

1973 "Deep Play: Notes on the Balinese Cockfight." In: *Anthropological Theory: An Introductory History*. Third ed. pp. 555

Graham, M. M.

1992 . *Reinterpreting Prehistory of Central America*, University Press of Colorado, Niwot.

Haller M. J

2004 *The Emergence and Development of Chiefly Societies in Río Partita Valley Panama*. Ph.D, University of Pittsburgh. <http://etd.library.pitt.edu/ETD/available/etd-08132004-135525/unrestricted/HallerETD.pdf>

Hayden, B

1995 "Pathways to Power: Principles for Creating Socioeconomic Inequalities, Foundations of Inequalities". T.D Price and G.M Feinman, New York, Plenum Press: 15-86

1998 "Practical and Prestige Technologies: The Evolution of Material Systems". *Journal of Archaeological Method and Theory* Vol. 5 No. 1 pp. 1-55

2001 "Fabulous Feasts: A Prolegomenon to the Importance of Feasting". In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, edited by Michael Dietler and Brian Hayden, pp. 23– 64. Smithsonian Institution Press, Washington, DC.

2003 "Were Luxury Foods the first Domesticates? Ethnoarchaeological Perspectives from Southeast Asia", *World Archaeology*, Vol. 34. No. 3, Luxury Foods (Feb), pp. 458-469.

Helms, M. W and F. O. Loveland (editors)

1976 *Frontier Adaptations in Lower Central America*, Institute of the Study of Human Issues, Inc. 1976 by ISHI. Philadelphia, U.S.A. Essays originally presented at the 9<sup>th</sup> annual meeting of the Southern Anthropological Society in April 1974

1979 *Ancient Panama: Chiefs in Search of Power*. University of Texas Press, Austin

Henderson, J. S

1982 "Reviewed Works: *Archaeology of the Rivas Region, Nicaragua* by Paul Healy and *Adaptive Radiations in Prehistoric Panama*" by Olga F Linares; Anthony J Ranere. *American Anthropologist*, New Series, Vol. 84, No. 3, pp. 727-729

Hill, W. D. and J. E. Clark

2001 "Sports, Gambling, and Government: Americas First Contact Sport?" *New World Archaeological Foundation*, Brigham Young University, Department of Anthropology. UT. 103(2), Pp. 331-345. American Anthropological Association

Hodder, I

1992 *Theory and Practice in Archaeology*, Routledge Publications, New York

Kolman C.J., E. Bermingham, R. Cooke, R.H. Ward, T.D Arias, F. Guioneau-Sinclair

1995 "Reduced mtDNA Diversity in the Ngobe Armerinds of Panama", Smithsonian Tropical Research Institute in Balboa, Panama

Jennings, J.

2005 "*La Chichera y El Patrón: Chicha and the Energetics of Feasting in the Prehistoric Andes*" University of California at Santa Barbara, *American Anthropological Association*, Vol. 14, 2005pp. 241-259.

Johnson, F.

1943 "Tooth Mutilation among the Guaymí", *Anthropologist*, New Series, Vol. 45, No. 2, *Centenary of the American Ethnologist Society*, April 1943. Pp. 327-328.

1948 "Central American cultures: an introduction". In *Handbook of South American Indians*, edited by Julian H. Steward. *Bulletin of the Bureau of American Ethnology*, No. 143, Vol. 4. Pp 43-70. Washington, United States Government Printing Office

Lange, F. W.

1996 "Chapter 16: Summary: Gaps in Our Databases in Blanks in Our Synthesis: The potential for central American Archaeology in the Twenty-First Century". Pp. 305-329. In *Paths to Central American Prehistory* Lange, Frederick W. Editor Library of Congress Cataloguing-in-Publication Data, University Press of Colorado, Niwot, Colorado USA.

1993 "Precolumbian Jade: New Geological and Cultural Interpretations", University of Utah Press, Salt Lake City

Linares, O. F.

1976 "Animals that were bad to eat were good to compete with: an analysis of the style from ancient Panama". In *Ritual Symbol in Native South America* edited by P.D. Young and

- J.D. Howe. University of Oregon Anthropological Papers No. 9, University of Oregon Press
- 1977a “Adaptive Strategies in Western Panama”, *World Archaeology*, Vol. 8, No. 3, *Human Biogeography*. (Feb) pp. 304-319
- 1977b *Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces*. *Dumbarton Oaks Studies in Pre-Columbian Art and Archaeology*, No. 17
- 1979 “What is Lower Central American Archaeology” *Annual Review of Anthropology*; Vol. 8 Smithsonian Tropical Research Institute, Balboa, Panama
- Linares, O. F. and A. J. Ranere (editors)
- 1980 *Adaptive Radiations in Prehistoric Panama*. Peabody Museum Harvard University, Monograph No. 5.
- Linares, O. F. and P. D. Sheets
- 1980 “Highland Agricultural Villages in the Volcán Barú Region”. In *Adaptive Radiations in Prehistoric Panama*, edited by O. F. Linares and A. J. Ranere, pp. 44-55. Peabody Museum Harvard University, Monograph No. 5.
- Locascio, B.
- 2007 Tracing Social Change: Community Identity and Socioeconomic Interaction at HE-4 (El Hatillo), in the Río Parita Valley, Panamá. Proposal
- Lothrop, S. K.
- 1937 *Coclé: An Archaeological Study of Central Panama, Part 1*. Peabody Museum of Archaeology and Ethnology, Harvard University, Memoir No. 7.
- 1950 “Archaeology of southern Veraguas, Panama”. *Memoirs of the Peabody Musuem of Archaeology and Ethnology*, Vol. 9, No. 3, Cambridge Museum.
- Loveland C.A. and Loveland F.O.
- 1982 *Sex Roles and Social Change in Native Lower Central American Societies*
- Lyall, C.
- 2007 Marine Ecology and Shellfish Exploitation in the Río Parita, Panama; Honours Thesis submitted to Faculty of Anthropology, St. Francis Xavier University
- Marcus J.

1980 Reviewed Work: *Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces* by Olga Linares. *American Antiquity*, Vol. 45, No. 1 (Jan) pp. 214-216.

Mauss, M.

1990 *The Gift, The reform and Reason for exchange in Archaic Societies*. Translated by W.D Halls. First Published in 1950, *Essai de la don* University of France Press.

Menzies, A.C.J.

2006 “The Role of Craft Specialization in the Development of the Chiefly Central Place Community of El Hatillo (He-4), Central Panama”. *Propuesta doctoral entregada a la National Science Foundation*.

Oberg K.

1955 “Types of Social Structure Among the Lowland Tribes of Central and South America”, *American Anthropologist* No. 57, pp. 472-488

Olson R.W.

2007 [www.chiquita.com](http://www.chiquita.com) ©Copyright 2007 by Chiquita Brands L.L.C.

Oviedo y Valdles G. F. de

1944 *Historia General y Natural de las Indias, Islas y Tierra-firme del Mar Océano*. 4 vols. Banco de América, Managua

Pauketat T. R. and L. S. Kelley; G. J. Fritz; N. H. Lopinot; S. Elias; E. Hargrave

2002 “The Residues of feasting and Public Ritual at Early Cahokia”, *American Antiquity*, Vol. 67, No. 2, pp. 72-81

Peebles C.S and S.M Kus

1977 “Some Archaeological Correlates of Ranked Societies”. *American Antiquity* 42: 421-448

Piperno D. R; K. H Clary; R. G Cooke; A. J Ranere; D. Weiland

1985 “Preceramic Maize in Central Panama: Phytolith and Pollen Evidence”, *American Anthropologist*, New Series, Vol. 87, No. 4 (Dec) pp. 871-878

Potter, J. M.

2000 “Pots, Pans, and Politics: Communal feasting in the American Southwest”, *American Antiquity*, 65(3) pp. 471-492

Poor, P.

1956 "You Bet Your Wife!" in *Natural History Magazine*

Redmond, E.M.

1994 *Tribal and Chiefly Warfare in South America*. University of Michigan Museum of Anthropology, Memoir No. 28.

Renfrew, C.

1974 "Beyond a Subsistence Economy: The Evolution of Social Organization in Prehistoric Europe". In *Reconstructing Complex Societies: An Archaeological Colloquium*, edited by C. B. Moore, pp. 69- 85. Supplement to the Bulletin of the American Schools of Oriental Research, No. 20.

Ricketts, M.C.

1966 "The North American Trickster", *History of Religion*, Vol. 5 No. 2 Pp. 327-350

Sauer, C.O.

1966 *The Early Spanish Main*. University of California Press, Berkely

Sahlins, M. D.

1963 "Poor Man, Rich Man, Big-Man, Chief: Political Types in Melanesia and Polynesia", *Comparative Studies in Society and History*, Vol. 5, No. 3 (April). Pp. 285-303

Service E. R.

1962 *Primitive Social Organization: An Evolutionary Perspective*. Random House, New York

Sinclair, F. G.

1988 *Proceso de Cambio en la Sociedad Ngöbe (Guaymí) de Panamá*. Serie Realidad Nacional No.2, Departamento de Sociología. University of Panama Press, Panama.

Spielman, Richard S; Migliazza Ernest C; Neel James V; Gershowitz, Henry; Torres de Arauz, Reina; Averill B.K; Birdsell Joseph B; Crawford M. H; Cruz-Coke, Richard; Curtain C.C; Majumder P. P; Morton, Newton E; Pourchet, Maria Julia; Romos, Alcida; Young, Philip D.

1979 "The Evolutionary Relationships of Two Populations: A Study of the Guaymí and the Yanomama [Comments and Reply]", *Current Anthropology*, Vol. 20, No. 2 (Jun), pp. 377-388

Smalley, J. and M. Blake

2003 "Sweet Beginnings: Stalk Sugar and the Domestication of Maize", *Current Anthropology*, Vol. 44, No. 5, December, Pp. 675-703.

Stier F.

1982 “Domestic Economy: Land, Labor, and Wealth in a San Blas Community”, *American Ethnologist*, Vol. 9, No. 3. (Aug) pp. 519-537

Stirling, Matthew W.

1991 “Archaeological Investigations in Costa Rica”. *National Geographic Society Research Reports, 1964*; In *Chiefdoms: Power, Economy and Ideology*, Cambridge University Press, Great Britain. Schwartz, D. W. General Editor. Originally published in 1969

Thompson, Janice and M. Manore, J. Sheeshka

2007 *Nutrition: a functional approach*. Canadian ed. Pearson Education Canada. Appendix A: Nutrient Values of Foods Pp. A-A1to A-A86. Original edition, entitled *Nutrition: An Applied Approach* published by Pearson Education Inc., USA, 2005

Thorner, D. with K. Basile and R.E.F Smith,

1986 *A.V Chayanov on The Theory of Peasant Economy*, University of Washington Press, Wisconsin, USA. Published in Great Britain by Manchester University Press, Oxford Road, Manchester. The Board of Regents of the University of Wisconsin System

Torres de Araúz, Reina

n.d. *La Balseria: Deporte Indigena*. Instituto Nacional de Cultura y Deportes, Dirección de Patrimonio Histórico, Panamá City.

United States Department of Agriculture’s National Agricultural Statistics Service

2003 (U.S.D.A.NASS). Statistical Highlights of United States Agriculture, 2002/2003. Washington, DC: U.S.D.A.. Available online at <http://www.U.S.D.A..gov/nass/pubs/> [accessed January, 2008]

2002a Census of Agriculture, Vol. I, Part 5,: United States Summary and State Data. Washington, DC: U.S.D.A.. Available online at <http://www.nass.U.S.D.A..gov/census> [Accessed January 1, 2008]

2002b Census of Agriculture, Vol. I, Part 21: Massachusetts State and County Data. Washington, DC: U.S.D.A.. Available online at <http://www.nass.U.S.D.A..gov/census/census02/> Accessed December 1,2007]

Ward, C.

1989 “Historical Writing on Colonial Panama”, *The Hispanic American Review*, Vol. 69, No. 4 (Nov) pp. 691-713

Wesson, Cameron B.

1999 “Chiefly Power and Food Storage in Southeastern North America”, *World Archaeology*, Vol. 31, No. 1 In: *Food Technology in Its Social Context: Production, Processing and Storage*. Pp. 145-164

White, Theodore E.

1953 “A Method of Calculating the Dietary Percentage of Various Food Animals Utilized by Indigenous Peoples”. *American Antiquity* 18:396–398.

Young, P. D.

1971 *Ngawbe: Tradition and Change among the Western Guaymí of Panama*. Illinois Studies in Anthropology No. 7 University of Illinois Press Urbana, Chicago, London, Printed in the United States of America

1970 “Notes on the Ethnohistorical Evidence for Structural Continuity in Guaymí Society”, *Ethnohistory*, Vol. 17 No. 1 and 2 (Winter-Spring) pp. 11-29

1976 “The Expression of Harmony and Discord in a Guaymí Ritual: The Symbolic Meaning of Some Aspects of the Balsería”. In *Frontier Adaptations in Lower Central America*, edited by M. W. Helms and F. O. Loveland, pp. 37-53. Institute for the Study of Human Issues, Philadelphia.

1999 “Ngóbe Adaptive Responses to Globalization in Panama” (with John R. Bort). In William Loker, ed., *Globalization and the Rural Poor in Latin America*. Boulder, CO: Lynne Reiner Publishers, pp. 111-136.

2001 “The Ngóbe of Western Panama” (with John R. Bort). In Susan C. Stonich, ed., *Endangered Peoples of Latin America*, pp. 121-136. Endangered Peoples of the World Series, Barbara Rose Johnston, series editor. Westport, CT: The Greenwood Press.

Young, P. D and J. R. Bort

1976 “Edabáli: The Ritual Sibling Relationship Among the Western Guaymí”, In *Ritual and Symbol in Native Central America* edited by Philip D Young and J. Howe pp.77-90 Anthropological Papers No. 9 University of Oregon Press, Eugene