TEMPS PERDU ET TEMPS VÉCU: CROSS-CULTURAL NUANCES IN THE EXPERIENCE OF TIME AMONG THE ENGA

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> At last, time, time has come,
> It has drawn the attention of all tribesmen,
> They are surrounded by a mist of discussion.
> All the tribesmen are swaying.
> Now the tribes must make a choice.
> Men of Wabag, the choice is yours too,
> Men of Wabag you should now set the date,
> The date, you'll be free, free forever.
>
> (Talyaga 1975: 11)

This song, full of ambiguities about dates, events, and times, was recorded about 1974 by Kundapen Talyaga, then one of the first Enga undergraduates at the University of Papua New Guinea. It was being sung at a time when Papua New Guinea was moving towards political independence from Australian rule in September 1975. If viewed through the lens of a satellite camera, Enga Province would be seen to lie in the center of the Highlands at the heart of this new nation.[1] From a historical perspective, which takes account of patterns of colonial intervention and administration spreading fitfully inland from scattered coastal enclaves, the Enga would be viewed as latecomers to the colonial area. Even in the 1980s many Enga had an acute sense of being "disadvantaged," of being people who lived at "the end of the road of development."

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A sense of place and time in the colonial order is expressed by the singers of this song. There is a clash of time scales, a feeling of being left out of important decisions that will shape their futures, In the context of clan life, decisions of moment, they sing, are reached in the hurly-burly of speech-making and dancing (swaying) at ceremonial gatherings. But now other men, in the secrecy of distant forums, are making choices about independence and the latecomer Enga will surely be left out if they do not hurry and catch up.

The Enga sing of choices to be made between old ways and new, old rhythms and new. These choices are part of everyday living in a province rich in people, in subsistence productivity, in culture and history, but only recently entered upon the stage of colonial life. In fact Enga clans were only formally inducted into colonial rule in the decades following the end of World War II in 1945. So young Enga, such as the recorder of this song (once a provincial planning secretary, more recently a mining company executive), having left homestead and gardens to enter into Western forms of education, are caught between two time planes. These *évolués* would argue that their own people, according to the measures used by the modern bureaucracies of which they are a part, are gravely disadvantaged and trapped by their traditions and institutions in a situation of competition for limited national resources.

Old Rhythms and New

This article will explore a number of different experiences of time among the Enga, as perceived by a Western fieldworker. It will focus first upon the clash between a time experience embedded in agricultural and seasonal rhythms and one embedded in the demands of a colonial economy and polity. Then it will move to an exploration of genealogical time and its clash with the preconceptions of a historical time based on chronology. The final focus will be upon the discontinuities between dating based on Western science and estimates arrived at from the use of genealogical data in discovering when a particular event may have occurred. The paper will close on questions about cross-cultural sensitivity and its possible meanings for historical inquiry.

The context of contemporary, postcolonial living must be kept steadily in view in any exploration of the meanings of “time” in the everyday existence of the Enga, Ambiguities and dislocations are evident both in old rhythms of time rooted in horticulture and in recently introduced demands on time made by plantation work patterns, managers’ desk calendars, and mission school clocks brought by “red” men (foreigners)

and their black agents. The Enga have been for many centuries, it would appear, finely skilled cultivators of high valley soils and expert domesticators of pigs. They have lived often at a level above subsistence and have negotiated vigorously to keep open the networks, or "roads," of exchange along which valuables have flowed in regular rhythms and cycles. Their checkerboards of garden lands strung along fertile fans and terraces in the high valleys, their volatile political and warfare systems, and their elaborate patterns of social relationships between and within clan clusters have stimulated long genealogical memories extending over not a few generations. Rooted in these traditions and institutions, they have carried into the trauma and chaos of the colonial and postcolonial eras clear notions of traditional rhythms and ways of measuring time. These differ from those introduced, but they persist, despite pressures towards forgetfulness.

Living in the early 1970s in the midst of a cluster of Enga homesteads not far from the main government station of Wabag (later to become the provincial headquarters) convinced me of the reality and persistence of Enga time frames. Since I worked closely with "men of knowledge" in order to record samples, of their rich and varied oral traditions, I came in touch with these frames; for these were men of a generation molded by pre-European worldviews and cosmology. They still wondered how the steel axes, spades, and bush knives--which they had gained by bartering their youthful labor with the earliest foreign intruders--had come to be made. Questions were still on their minds about what red men meant by "civilization," about how metal tools could be mass produced, and whether European metal technology was linked with the introduced Christian religion.

They were men too who had crossed, rather painfully and often at cost to their dignity, freedom, and identity as human beings, significant cultural boundaries, as this new world of steel tools, taxes, law courts, high fences, metal-roofed houses, motor vehicles, and paper money pressed in on their lives and made new and contradictory demands on their time. My own rather painful attempts to learn a language as ordered in its syntax as classical Greek, a language that could be spoken at different levels of complexity by those fully inducted into its richness; my encounters with these wise men; my living in Enga Province: all made me aware of some of the hazards involved in cross-cultural interactions and understanding, and of some of the clung-to levels in lived time within which men such as these, who tread between worlds, sought balance in order to survive.

Before clocks and printed calendars came with the foreigners, the

Enga did have means of marking and dividing days and nights by sun positions and moon phases, and cycles of activities marked by lunar months. Meggitt (1958), one of the first social anthropologists to enter these valleys, recorded salient aspects of this lunar calendar (see Table 1). Even so brief a residence as eighteen months (between July 1971 and January 1973) gave me an acute sense of the pragmatic value of such a temporal ordering of significant activities in the economic and productive fields. The persistence and viability of this rhythmic cycle was evident to me almost two decades after Meggitt had recorded it, but the new time frames and demands brought by the colonial administration were also evident in two ways. Very few of the men with whom I conversed used the terminology of their fathers. They were caught between times: not clear about that earlier set of names and only partly confident in using introduced names like "January," "February," and so on. This was a natural enough transition for people inhabiting two worlds at once. While I did not set out to plot a year's cycle in the lives of any of the men with whom I worked, my living through these eighteen months and gathering data on central institutions and traditions convinced me that both the experience of cyclic productive activities and the pressure from new cycles and priorities were occurring simultaneously.

Some observations give a hint of what was happening to the calendar. The food base was changing, and so too were cultivation and land use patterns. Taro, which was still a significant food crop right through the Lai valley to just west of Wabag in the 1950s, was being almost completely replaced by sweet potato in the 1970s, with only a few pockets of taro cultivation then remaining. The multiplication of mixed or kitchen gardens, noted in the east of the province in the mid-1960s by the geographer Waddell (1972: 168-176), was in full swing by the time of my residence--as my own domestic dietary patterns attested. Introduced vegetables such as corn, cabbage, tomatoes, and Irish potatoes were grown in these gardens and a large proportion sold in weekly markets and at house doors on mission and government stations. The sale of these goods brought men and women growers money to pay taxes, school fees, and church dues and to buy foods like rice and tinned fish, which were dietary markers of "modernity" in rural life. The expansion of sweet potato mounds and the multiplication of mixed gardens pushed land occupation further up valley slopes and ridges. On the most fertile soils cash crops such as coffee trees and, to a lesser extent, pyrethrum competed with food crops for land space and cultivation time (Lacey 1982).

If, as Meggitt indicates, the lunar calendar was a blend between growth cycles of food crops, levels of soil fertility, and phases of the

moon, these new demands on production were putting pressures on over-stretched land resources and crowding more productive work into each month. Some sense of how crowded were the lives of people in one community is conveyed by Waddell's careful observations recorded during two six-week periods in 1966: 8 March to 18 April (in the wet season) and 25 May to 5 July (in the dry season). The shifts in productive patterns can be seen by comparing the activities in Table 2 with those for the same months in Table 1. For instance, according to Meggitt's informants, who resided on ridges a few kilometers west of Wabag, they started house building during *pindi-mupa* (June) and completed that task during *pindi-nenai* (July). Waddell's informants, residing in the east of the province at Modópa, engaged in this task during both of the periods when he resided with them, in March/April and May/June. The more extensive use of their time in this activity may suggest that Modópa had a denser population in the 1970s than did the area near Wabag in the 1950s. Comparisons between other activities recorded in these two tables are also possible.

Clearly, both the subsistence substructure of life and people/land relations were changing, as was the manner in which time was being managed, measured, and lived by the Enga.

Exchange: Traditions and Practice

Three strands of oral tradition in particular were the focus of my study: rites of fertility and continuity (which generally lie at the core of religious life among cultivators of the soil); exchange ceremonies and relationships, especially manifested in the cyclic *mena tee pingi* rituals; and, finally, the *sangai/sandalu* bachelor purification rites. These were noted as occurring in specific lunar months in Meggitt's record (that is, May for bachelors' rites, August for fertility rituals, and wealth distributions in November), By the 1970s men claimed vigorously, especially if they were interviewed at or near mission stations, that upon embracing the new religion they threw their sacred stones into the river and let their fertility shrines fall into disrepair. These assertions were especially strong among adherents of one Christian tradition, largely because some pioneering missionaries had the habit of publicly smashing such stones and preaching forcefully against what they called the works of Satan. Though pioneers from other Christian denominations were more accommodating, apparently the external manifestations of the large and complex cycles of fertility rites did fall into disuse. The mind-set of believers and their substratum of worldviews embracing right relation-

TABLE 1. The Mae Enga Calendar

Approx. Time	Name	Rainfall Inches	Rainfall Days	Usual Events
January	*wambu-mupa* (first-firstborn)	11.76	25	Plant sugarcane; eat corn, leaf vegetables; pandanus ripening; fight, but otherwise keep out of rain.
February	*wambu-nenai* (first-lastborn)	11.35	26	Start pandanus harvest; plant emergency gardens; fight; keep out of rain
March	*iki* (single)	12.10	28	Harvest pandanus; corn, beans finished; eat first taro; food short.
April	*ni-mupa* [gleaning-firstborn)	12.68	24	Eat taro, bush foods; sweet potato scarce; fights over food.
May	*ni-nenai* (gleaning-lastborn)	7.02	18	Start hunting, cutting house timber, bachelors' rites; food scarce.
June	*pindi-mupa* (working-firstborn) alternative *ne-mupa* (garden food-firstborn)	5.04	15	Burn off for gardens; trap eels in slack water; hunt; start building houses; sweet potatoes bearing; frosts.
July	*pindi-nenai* (working-lastborn) alternative *ne-nenai* (garden food-lastborn)	3.70	13	Dig and fence gardens; trap eels; hunt; build houses; prepare for ceremonies; frosts.
August	*jambai-mupa* (thatching-firstborn) alternative *keori-mupa*	6.70	19	Dig and fence gardens; start planting; hunt; speed up house-building; make salt; fertility rituals.
September	*jambai-nenai* (thatching-lastborn) alternative *keori-nenai*	8.99	23	Finish house-building, gardening, fertility and bachelors' ceremonies; hasten planting corn, taro, potatoes; start trading trips,
October	*liu-mupa* (plucking-firstborn)	9.11	22	Trading trips; increase funerary and other wealth-distributions.
November	*liu-nenai* (plucking-lastborn)	11.06	25	Plant sugarcane, bananas; trading trips; wealth-distributions.
December	*kumba-mupa* (blotted out-firstborn) alternative *aringgi-mupa* (old-firstborn)	11.46	26	The same; fights starting.

Intercalary month *kumba-nenai* or *aringgi-nenai.* Months *ni-nenai* to *liu-mupa* are classed as *paina-* or *epe-kana*, good months; *liu-nenai* to *ni-mupa* are *ko-kana*, bad months.

TABLE 2. Modópa Sample Community: Mean Time Spent per Man-Week on All Activities (In Hours)

Activity	Period I	Period II	Total	Percent
Subsistence food production				
Clearing and fencing	0.8	8.0	4.6	10.6
Sweet potato cultivation	9.7	15.2	12.6	29.1
Mixed/kitchen garden				
Yams	1.6	1.5	1.6	3.7
Other crops	1.8	2.0	1.9	4.4
Pigs	0.4	1.0	0.7	1.6
Subtotal	14.4	27.6	21.4	49.4
Other subsistence tasks				
House construction	1.8	1.1	1.4	3.2
Household (sweeping, cooking*)	0.4	0.4	0.4	0.9
Preparation of tools, equipment, and clothing	0.3	----	0.2	0.5
Collecting firewood	1.9	0.8	1.3	3.0
Hunting	----	0.1	----	----
Subtotal	4.4	2.5	3.4	7.8
Commercial crop production				
Clearing	0.2	0.3	0.2	0.5
Pyrethrum (maintain)	0.1	----	----	----
Peanuts/Irish potatoes	0.2	0.2	0.2	0.5
"Business" crops	0.4	----	0.2	0.5
Coffee	1.9	0.6	1.2	2.8
Subtotal	2.8	1.2	1.9	4.4
Commercial				
Market commercial crops	2.7	2.4	2.6	6.0
Paid work	0.2	----	0.1	0.2
Purchasing	0.5	0.3	0.4	0.9
Playing "lucky"	0.3	0.2	0.3	0.7
Subtotal	3.8	3.0	3.4	7.8
Other external sector				
Council work	5.6	2.2	3.8	8.8
Church service/work	3.3	2.2	2.7	6.2
Clinic	0.2	0.2	0.2	0.5
Subtotal	9.1	4.6	6.7	15.5
Social/ceremonial				
Tée	0.3	0.2	0.2	0.5
Sadárú	0.5	3.1	1.9	4.4
Marriage	0.2	0.4	0.3	0.7
Mourning	2.5	0.1	1.2	2.8
Ceremonial (various)	0.4	1.1	0.8	1.8
Visiting	1.8	2.5	2.2	5.1
Subtotal	5.6	7.5	6.6	15.2
Total	40.0	46.2	43.3	100.0

*In earth ovens, and, therefore, for feasts only.

Source: Waddell 1972:89.

Note: Period I is for 8 March-18 April, the "wet" season; Period II is for 25 May-5 June,

ships with powerful and sometimes dangerous spirits and ghosts remained, however. In fact, in October 1971, soon after my arrival, I climbed up into a high plateau assembly ground to witness a complex of food exchanges, speeches, and negotiations that marked the beginning of a *mena tee pingi* cycle that eventually reached its culmination in 1975 and 1976. Rumor had it that elders felt negotiations and exchanges were necessary at that time. Significant men had been visited in their dreams by the local python spirit, bidding them to go hunting in the high ridge forests to gather possums for wealth exchanges. In this they were being true to their '"old religion" and to the old calendar.

It is on the *mena tee pingi* as an indicator of continuities and conflicts over time frames that I wish to dwell briefly. Key wise men from around Wabag taught me that in the area in which I dwelt there were intimate ties between the rhythms of large fertility rites and the ebb and flow of *tee* cycles. There was still some visible evidence of this: public dancing grounds used in the great public exchanges had located beside them the sacred groves in which the fertility stones were housed. One man of knowledge, Kepai, argued that the rich men *(kamongo)* who were key actors in the *tee* would burn down their *aeatee* (fertility) shrines at the end of rites embracing a number of clan clusters, and that this would signal that negotiations were to be set in train for the beginning of a *tee* cycle (Lacey 1980:78, 79).

Much has been written about this cycle of wealth exchanges,[2] but much needs to be discovered and recorded as it persists, goes through a process of profound "involution" (to use Geertz's term), and reveals a great deal about Enga culture in change and history. So complex were the changes witnessed by Meggitt that he felt, in the late 1960s, that the strains were so great that this institution would collapse (1971). By the mid-1970s he was recording its continued, but "involuted," ebb and flow (Meggitt 1974).

This is not the place for extended detail on the *tee,* but a sketch of its character and its movement through major valleys, particularly those in the east and center of the province, is a necessary preliminary. My starting point is an extract from a report on the *tee's* historical meaning and implications:

> Without doubt the three-phase exchange, marked by opening gifts of valuables, return gifts of live pigs and pearl shells, and by the final return of cooked pig, is best seen as a network involving the exchange negotiations and transactions of the participating *kamongo.* Enga give names to this three-fold

> rhythm, This exchange system has a unity of its own, so that each completed cycle is marked also by ebb and flow along clearly marked exchange roads. . . . Thus, a given *tee* cycle, like the one witnessed in 1950 by Bus and Elkin at different points along its course, was completed later that year or early in the following year by the return of cooked pork in the reverse direction. Enga living in the Lai valley called this whole cycle an upward or westerly moving *tee*, because the gifts of live pig flowed westwards from Tambul in the Kaugel valley towards Wabag. The next major cycle (possibly in 1954-5) was then called a downward or easterly moved *tee* because the live pig exchanges moved from Wabag back to Tambul in the east. (Lacey 1979b:280)

Evidence from a variety of sources shows that the tee cycle was undergoing significant transformations through the decades from the 1950s to 1970s. It should be stressed that this institution did not enter the colonial era from a prior history of stasis or inflexibility. Of its nature it evolved, adapted, and absorbed significant changes mediated by its key players, the *kamongo*.[3] Part of that earlier history will be noted shortly. The major features of its transformations in the colonial era were as follows:

- A geographic spread from its earlier heartland in eastern and central Enga into communities to the north, west, and south of Wabag (see Fig. 1). Exchange "roads," trade routes, and communication pathways had existed and were used prior to when the red men from *Sali* (Australia) came and "cut their way through" (Talyaga 1975:3), bringing enforced pacification, new roads, and new possibility for mobility.
- A new and varied wealth base emerged and was absorbed into the cycles of exchange. Pigs, shells, feathers, oils, and salt to some extent remained the focal valuables. At first there was an inflation of each followed by a devaluation. As these fluctuated, new substitute and alternate valuables were being absorbed: paper money, steel tools, new foodstuffs, cartons of beer, motor vehicles. This process of absorption was like a musical theme and variations in which shells and pigs remained the dominant theme, but the new goods were woven through,
- l A transforming demography of participation came to be, marked not simply by the entrance upon the exchange arenas of clans that had not participated before, but by a democratization of key players. Some ***wise*** old *kamongo* put it wistfully and pithily: "In the old days, before the Europeans came into these valleys, there were very few *kamongo*

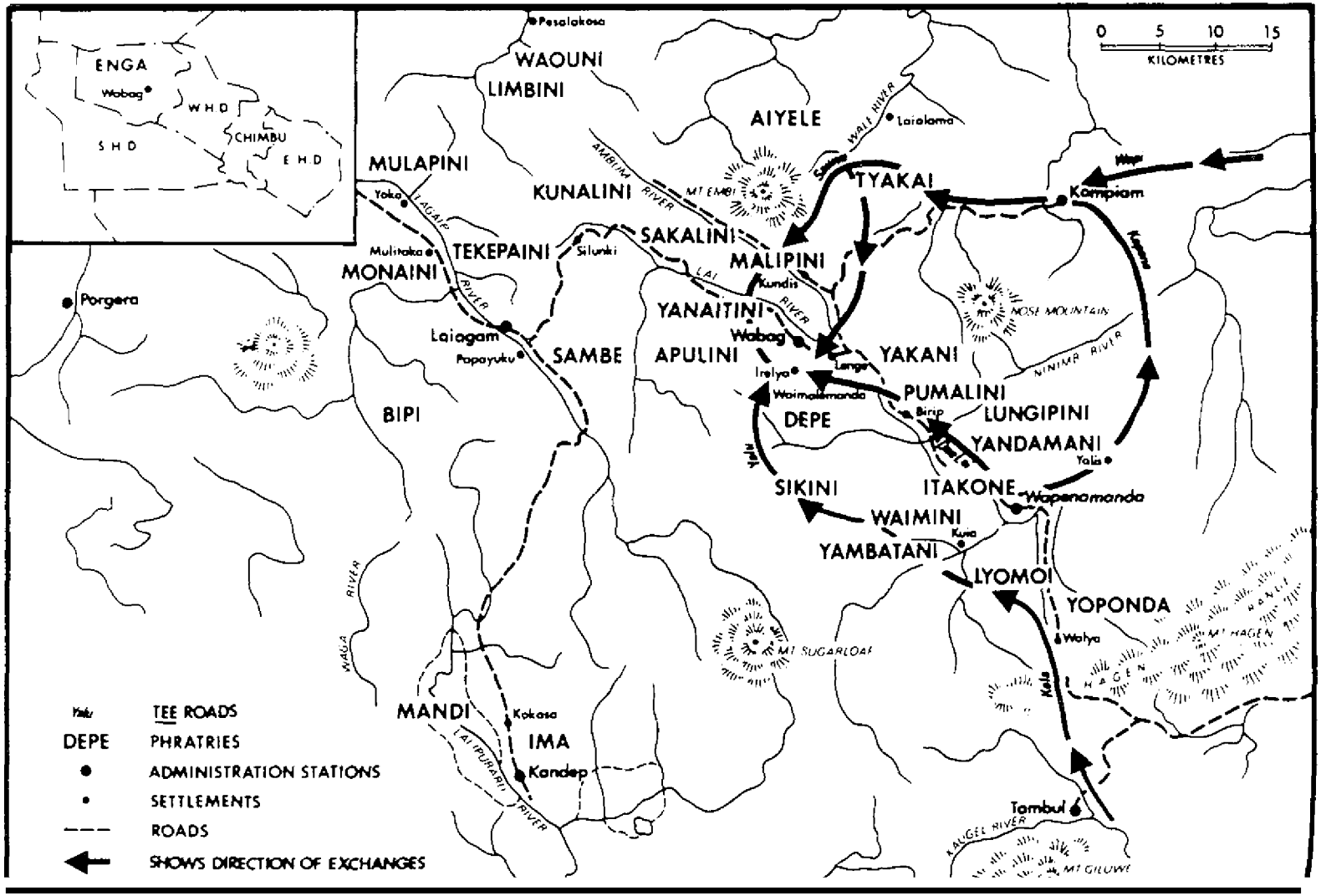

FIGURE 1. **Enga Region: precolonial *tee* exchange roads.** *(Reprinted from Lacey 1979b:281)*

(and they would name them) and many *tipya* who were dependent on them. We and our ancestors had very few pigs and pearl shells. After the Europeans came there was more wealth available. This meant that it was now possible for any ordinary *tipya* to try to become a *kamongo.* Now there are too many men acting like *kamongo* who before were only *tipya"* (Lacey 1981a:80). This was not simply a mournful elegy for the passing of the good old days, but more importantly a shrewd assessment of what was happening in changing times.

Each trend fed into this process of involution and strain.

Tee and Time

A passing review of the fluid mechanics of the *tee* reveals how much this institution was a core expression of "time passed" and "time lived" for the Enga. The public ceremonial places on which the great *mena tee pingi* exchanges were orchestrated were arenas full of history. For instance, specific trees were planted on the borders of these meeting places by founders of the grounds and by *kamongo* who saw themselves as bringers of this institution into their clans. *Kamongo* versed in the history of the *tee* in their clan cluster could read these trees like calendars and monuments, marking the deeds of men who could also be located and named in genealogical chains. As I moved through a series of *tee* grounds located in the valley terraces and ridges owned by my immediate neighbors of the Yakani clan cluster, I was convinced that, were it possible to use the science of dendrochronology for dating these trees, one set of time frames could be compared with another, with fruitful consequences. In the language of these trees lay many rich markers of the flow and high points in time remembered.

But time was not simply the heroic past locked into those trees bordering these exchange arenas. At the climax of any public exchange event, competing and cooperating *kamongo* strut, stride, and dance along lines of stakes to which pigs are tethered, counting them and naming them for their exchange friends and their clansmen. The stakes are markers in an accounting system of complex and cross-cutting transactions. But, like the trees, they are markers of historical time too. Lambu, a *kamongo* par excellence who had been a cornerstone in intersecting *tee* networks in the central Lai valley until his retirement from the public exchange arena in the mid-1950s, acted out the historical character of these pig stakes for me just as he had marked out the significance of the trees:

> There was another lasting memento of past *tee* for Lambu--the lines of pig stakes on Lenge ground. As we walked from the western approach to the ground towards its head at the eastern end, Lambu paused from time to time to plunge the handle of his axe into the ground. Then he would straighten up his towering figure, look around and proclaim that this spot marked the place where his line of pig stakes ceased at a certain *tee.* Whenever he proclaimed these triumphs the other old Yakani men who followed would nod their approval, perhaps recalling Lambu's glories for themselves as fellow clansmen.
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> The first such place was where his last *tee* was completed in 1954 or 1955. At that point the approach to the ground was hard to discern, since the road now cuts through. The head of the ground was some distance away, and Lambu's line of stakes may have held nearly 200 pigs. Men with us claimed that clansmen and allies came from many places on that day, in their hundreds to witness the event at which Lambu made his last *tee.* European witnesses may also have been there. In addition, there is a specified distance of 4 feet between each pig stake. Lambu's testimony about his last and greatest *tee* could therefore be assessed from a variety of sources.
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> The last place at which we paused was at the point where Pendaiane, Lambu's father, had made his last and greatest *tee,* assisted by his son and heir. It was apparent that Pendaiane in his own time was a great *kamongo,* in terms of the alliances he had built which enabled him to display so long a line of his stakes. But it was also obvious that the heir surpassed his father's great achievements. To appreciate the historical significance of this act of self-praise and remembrance performed by Lambu in late 1971 we need to examine the meaning and use of pig stakes in the *tee.* (Lacey 1979b:284)

The data are revealing and self-evident. No *kamongo* of any genealogical stature or pedigree walks on the arena alone. By his side are his own special "holders of the way" who have helped him assemble his line of pig stakes; behind him stand those who have gone before as mediators of clan wealth, They have laid down the line of stakes along which he now struts. They have also challenged him, for in each exchange cycle, as Kepai taught me, the *kamongo* sought to leap over, to exceed the achievements of his ancestors and father:

> . . . In his next *tee* he would work to go beyond what they had achieved. Once he had been able to reach beyond them, say to fifteen pig stakes, he could then proclaim in the presence of the assembly:
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> "I am a *kamongo.* All others are poor men. My father's mark stands there (at the place where his father's eleven stakes had reached). I have added more, and have leapt over his stakes. I am therefore richer than my fathers!" (Lacey 1979b:287)

Time remembered and time lived for these key actors who came from acknowledged *kamongo* lineages intersected in public ceremony because of this precise mathematics of memory.

Some previous *tee* exchanges were so memorable for participant *kamongo* that they were memorialized by elaborate names now so dense in old symbolism that they are difficult to decipher. Two names that came with the colonial age could be deciphered and their interpretation was very revealing.

Early government patrol reports reveal that some European field officers had little understanding or time for the complexities and time-consuming endeavors of the *tee* exchanges (Lacey 1979a). From time to time they expressed the opinion that commitments to the *tee* got in the way of clansmen's work contributions to government schemes, such as land clearing, road building and maintenance, and growing food crops for stations--all part of the corvée by which the villagers were inducted into a colonial taxation system. One name given to a cycle in the early 1950s, when these pressures were being felt keenly, was *ariapa tee, ariapa* being an Enga version of the order *"Ariap!"* in Tok Pisin. Police and government village officials were putting pressure on participants to quicken the process, to reach hasty decisions in their transactions, rapping out that order, "Hurry up! Keep moving!" The *kamongo* felt the pinch of being caught between two competing time planes and felt justified in naming their cycle in this way.

The second name also comes from that first decade of the colonial era. In an earlier study I used a "chain-network" image to describe the ebb and flow of exchange relationships in the *tee.* I also argued that "through the mechanisms of this exchange system many Enga participants have circulated and absorbed new ideas and forms of wealth." That flexibility and absorption was true in precolonial, as well as in colonial, times. The example that struck me in 1972 was that of the Aiyele-Kutaipi clans who inhabit the Wale valley to the north of

Wabag. They appear to have first participated in the *tee* system about 1954. To commemorate their entry into it, they named that first cycle *kunjia tee* for the steel bush knives they drew as valuables into their clans through exchange allies living closer to Wabag. The Wale valley people were on the periphery of the colonial enclave developing around the Wabag station. Its sphere of influence was too small in scale to draw young Wale men into the labor corvée. But, Kutaipi *kamongo* saw the advantages of the new tools, had pigs to spare, and so worked hard to have the *tee* expand into their valley, bringing *kunjia* in return for pigs (Lacey 1973: 94).

The eastern and central Enga caught in the clash of two time frames gave the name *ariapa* to one *tee;* the northern Enga of the Wale enticed *kunjia* and a new productive rhythm into their cultivation calendar and named that memorable first *tee* accordingly. So names of *tee* cycles, like named commemorative trees planted at dancing grounds and numbered pig stakes lined along those grounds, were markers in which time remembered and time lived intersected for the Enga. There is another story altogether about the impact of steel tools upon lived time, charted by Salisbury in his fine *From Stone to Steel,* based on a study carried out in the early 1950s among the Siane (1962: passim). No one has conducted this kind of study on the effects of new, less time-consuming technology on the Enga. Salisbury's inquiry reveals a complex of qualitative changes in time use, sexual division of labor, and the social relations of production that flowed from this influx of new tools. One change of relevance to our consideration of the changing face of the *tee* cycles was an explosion of exchange ceremonies among the Siane. That evidence relates to what happened in the early decades of colonial life in Enga and reminds us that lived time would appear to have been undergoing some kind of qualitative change, of which the *tee* was a concrete and symbolic expression.

Genealogies and History

The time frames in which the Enga men of knowledge and I centered our encounters and discussions were not only cycles of repetition, such as the lunar calendar of cultivation and other productive activities and the *tee.* We also spoke and moved through what could be seen as a chronological frame. The language of this discourse was genealogical. That discourse was not only a Pandora's box for us, but is one that exercises many minds including those of historians, anthropologists, and archaeologists when they inquire into issues of dating in contexts where

no written documents exist. I will draw my inquiry into Enga time to a close with some considerations on this area of contention, because it illustrates so well the hazards--and some of the ideological minefields --that lie in wait for those engaged in cross-cultural interpretation of time remembered.

First the testimony of Pangia. He was a member of the Mulapini-Tupimane clan whom I interviewed at his homestead in the western area of the province near Mulitaka in August 1972. Our interview had an air of coolness to it and I sensed that Pangia was treating me with some suspicion. Later his son, who was working with me as a research assistant, took a tape recorder home with him and taped his conversation with Pangia. That revealed how the old man perceived of me as a government agent recording genealogical evidence, and land settlement and tenure details, prior to coming into their area to freeze boundaries between disputing clans. His son was able to disabuse Pangia to some extent about the aims of my questioning, but as the following statement makes clear this man of knowledge had an acute sense of his inhabiting a universe of knowledge different from mine.

> I can tell you how our community began and the names of the fathers and sons from our founder down to me and my sons. But I know that this knowledge is incomplete. When my grandfather and father taught me in our men's house they did not tell me that a curious European would come and put me to the test by asking many questions about the times before. . . . The Mulapini people began at Yoko. That is the place I know. But Mulapini men have gone and settled in other places too. Yoko is the place where Mulapini clans began. Our people are like the root and trunk of a tree which has many branches. They stretch out in many different directions, but they all grow from the one root and trunk in Yoko. . . .
>
> The possum Komaipa begot Kombeke. Kombeke began the Mulapini people in Yoko. These two, Komaipa and Kombeke, are right at the base of the centre post in our men's house. Like the centre post these two founders of Mulapini (Komaipa and Kombeke) hold together our whole group. (Lacey 1974:40, 41)

Pangia's commentary has many implications as I have argued elsewhere (Lacey 1974 and 1981 b). Three images or metaphors expose some of the meanings he was expressing about genealogical time. One is the metaphor of the rope or chain of genealogy by which Pangia could link

the founder of his people by "the names of fathers and sons"' down through ten generations "to me and my sons." That was essential knowledge for a man's sense of his roots and identity in time. He was confident about this knowledge, despite his sense that it was under my scrutiny and questioning as "a curious European." His second image was cast in terms of a tree and used to express the growth and spread of Mulapini clans and lineages out from their original and central place at Yoko. To verify a claim, demonstrated through the recital of a man's genealogy, gave him a sense of history, order, legitimacy, and ties with his homeland. His third metaphor was more complex than the previous two. It was about the transmission and quality of this genealogical knowledge and referred to the men's house: "my grandfather and father taught me in our men's house. . . . These two, Komaipa and Kombeke, are right at the base of the centre post in our men's house. Like the centre post these two . . . hold together our whole group." Through time and across generations the essential "rope" and "tree" of knowledge is passed on in the secrecy and warmth of the hearth.

Without wishing to leap overboard into the murky depths of the "primitive mentality" debate, which Rigby (1983) has attempted to set right in his elaborate essay, it would seem that Pangia is issuing a warning here. While genealogical knowledge lies at the hearth for a man's identity and roots in Enga culture, Western historical inquiry with its focus on "absolute dating" and calendar years may be of a different quality. The two may not necessarily share common ground. I am convinced that the Enga have a sense of their ties to time past and a sense of change through time past. Trees, pig stakes, and *tee* cycles, as well as Pangia's testimony, bear this out. Michel Panoff, in an epoch-making paper two decades ago, extended Evans-Pritchard's three categories of Nuer time and argued, using evidence of a tree metaphor, that the Maenge people of New Britain had an ordered sense of "historical time" (1969).[4] Pangia and other Enga men of knowledge convinced me that this was also a relevant category in the Enga worldview. Upon further reflection, I now wonder whether my contention was rather too simplistic and culture-bound and whether likening it to Western historical time, as conceived of in history textbooks with timelines and dates, was forcing this subtle Enga view into a straitjacket.

One provocative Australian historian has asserted that "the most sudden, drastic and hence dramatic change that Colonial Australians wrought on the Aboriginal landscape was to impose upon it the idea of the straight line" (Denholm 1980:48). By extension, perhaps the clock, calendar, and work regimes of government and commerce were rather drastic impositions upon the Enga and other Papua New Guineans, as

they had been upon rural communities being drawn into the process of industrialization in the England of the 1780s. Given these particular manifestations of European industrialization and colonization, I wonder whether the quality and shape of historical time, rooted in genealogical perceptions of the past, might be worth exploring rather than simply being compared with or fitted into calendrical patterns.

Two further Pandora's boxes need to be opened to take this consideration another stage further. In one of the reflections that make up an essential thread in his book *Islands and Beaches,* Greg Dening explores some pertinent issues about "history at the edges of culture." One issue he addresses is that of chronology and dating:

> . . . Claude Lévi-Strauss drove a wedge between anthropology and history by imagining that primitive cultures, the object of study of anthropology, are timeless, outside of history in their isolation from the European intruder. Primitive cultures enter time, become the objects of study of history, through the changes that contact made. There is only one way in which this totally other primitive culture can be known and that is by contact--by the anthropologist's contact if he is the first, by all the other intruders' contact if the anthropologist comes late. The totally other is either not known or in the context in which it is known it is changed. Ethnohistory's preoccupation with cultures beyond the European frontier had meant . . . the pursuit of an "ethnographic present" as an imagined moment prior to the impact of intrusion. It is a moment that *historically* has never existed. It is a moment that existed in the past-these cultures had an existence before European intrusion. *Historically* --that part of the past which is knowable because of historical records--there is no "ethnographic present" of traditional societies which is not post-intrusion. . . . Even myths and legends which purport to be about pre-intrusion reality are collected, indeed rendered lifeless, unchanging and permanent, by translation of the living word to paper, a metamorphosis that comes only with the intruder. The *historical* reality of traditional societies is locked together for the rest of time with the historical reality of the intruders who saw them, changed them, destroyed them. There *is* no history beyond the frontier, free of the contact that makes it. (Dening 1980:42)

One strand of tradition that Kepai, Lambu, Pangia, and other Enga men of knowledge taught me was origin and settlement legends linking

contemporary clansmen with their founders by story, putting flesh upon the skeletal bones of genealogy. What messages then are being carried by these traditions about founders and settlers? Only messages from the contexts and time frames recorded and used by the red men after they cut through the forests and entered Enga consciousness? My convictions, as a result of my dialogues with men of wisdom such as Kepai and Pangia, are otherwise. As already suggested, these conversations took place in those high valleys in the early 1970s when these men were caught by the changes and contradictions that were going on in their own lives and had gone on in their fathers' generation as a result of the coming of the red men, The evidence of their culture--particularly so central an institution as the *tee* with its markers and monuments to time lived in past generations, the shape and content of the traditions they taught me and a rising new generation, and the links between elements in their testimony and material remains that might be dated scientifically-- all points to the fragments from time past that these traditions carry. These messages suggested to me that, while there *"is* no history beyond the frontier, free from the contact that makes it," all evidence is not simply a total product of those contact encounters.

Derring's view of the nature of history challenges us to discover what time past, as transmitted through oral tradition, may mean. In some measure his position echoes that taken by Walter Ong, though it is more tempered than Ong's claim that "in an oral-aural culture there is no history in our modern sense of the term" (1970: 23).

More fully Ong argues the following contrasts in relationships between cultures and time:

> The differences between oral-aural culture and our own technological culture are of course so vast and so profound as to defy total itemization. We can here hope to touch only on some points relevant to our present interest in the word itself as sound.
>
> Perhaps one of the most striking and informative differences is that an oral-aural culture is necessarily a culture with a relationship to time different from ours. It has no records. It does have memory, but this is not by any means the same as records, for the written record is not a remembrance but an aid to recall. It does not belong to us as memory does. It is an external thing.
>
> In an oral-aural culture one can ask about something, but no one can look up anything. As a result, in an oral-aural culture

> there is no history in our modern sense of the term. The past is indeed present, as to a degree the past always is, but it is present in the speech and social institutions of the people, not in the more abstract forms in which modern history deals. (1970:23)

So Pangia, a modern Enga man of wisdom, and two modern Western scholars all seem to be raising important issues about the nature of time, memory, and history. My conviction remains, on the evidence that I gathered, observed, experienced, and was taught in my time with the Enga, that beyond the written records made after the red men's intrusion there exists a time past that is historical in character but that may well be challenging historians to give another shape to their craft. That may not mean fitting the past of oral tradition into a procrustean bedframe constructed by Western craftsmen.

"Time of Darkness"

The final Pandora's box concerns an event that occurred in the past, well before the formal beginnings in the 1880s of the European colonial age in these islands. It cast its shadow over much of the Highlands region. This event was a volcanic eruption that shed ash over many Highlands peoples, including the Enga. Many puzzles and contradictions emerge once attempts are made to date this event through relative estimates based on genealogical frames, radiocarbon dating, and calendrical dating from the fragmentary evidence in written records left by European voyagers. Since this investigation has generated a number of reports and at least one monograph, it is a matter of much discussion and detailed argument. From these I shall extract a few details to pinpoint its links with Enga time, memory, and history.

Enga name this tradition Yuu Kuia, the "Time of Darkness." In it they tell of the sky being filled with clouds and the sun being darkened; of people fleeing to their houses in fear as the ground, their gardens, and vegetation were covered with a thick layer of white dust; of people being caught without food, imprisoned in their houses for three days, and being driven by hunger to send out scouts to forage. Then light returned and people gradually emerged to clean up, assess loss and damage, and begin their lives again, These were memorable events. I gathered a small sample of these traditions during my initial fieldwork, assessing whether they could perhaps become a kind of standardized marker of time past. I was struck by the common elements in these traditions and by the people's classifying of them as *atome pii* (stories about

events that could be verified) rather than *tindi pii* (explanatory stories or myths). In the mid-1970s I again studied these traditions in a joint investigation with some Enga undergraduates (one of whom, Paul Mai, wrote an important report) and with a geomorphologist, Russell Blong, an expert on analyzing and dating volcanic ashes. The geomorphologist proceeded to place this event in a framework of vulcanological history in the region. Table 3 and Figure 2 are two of his analyses of the Enga evidence, part of his argument about how such an event could be dated.

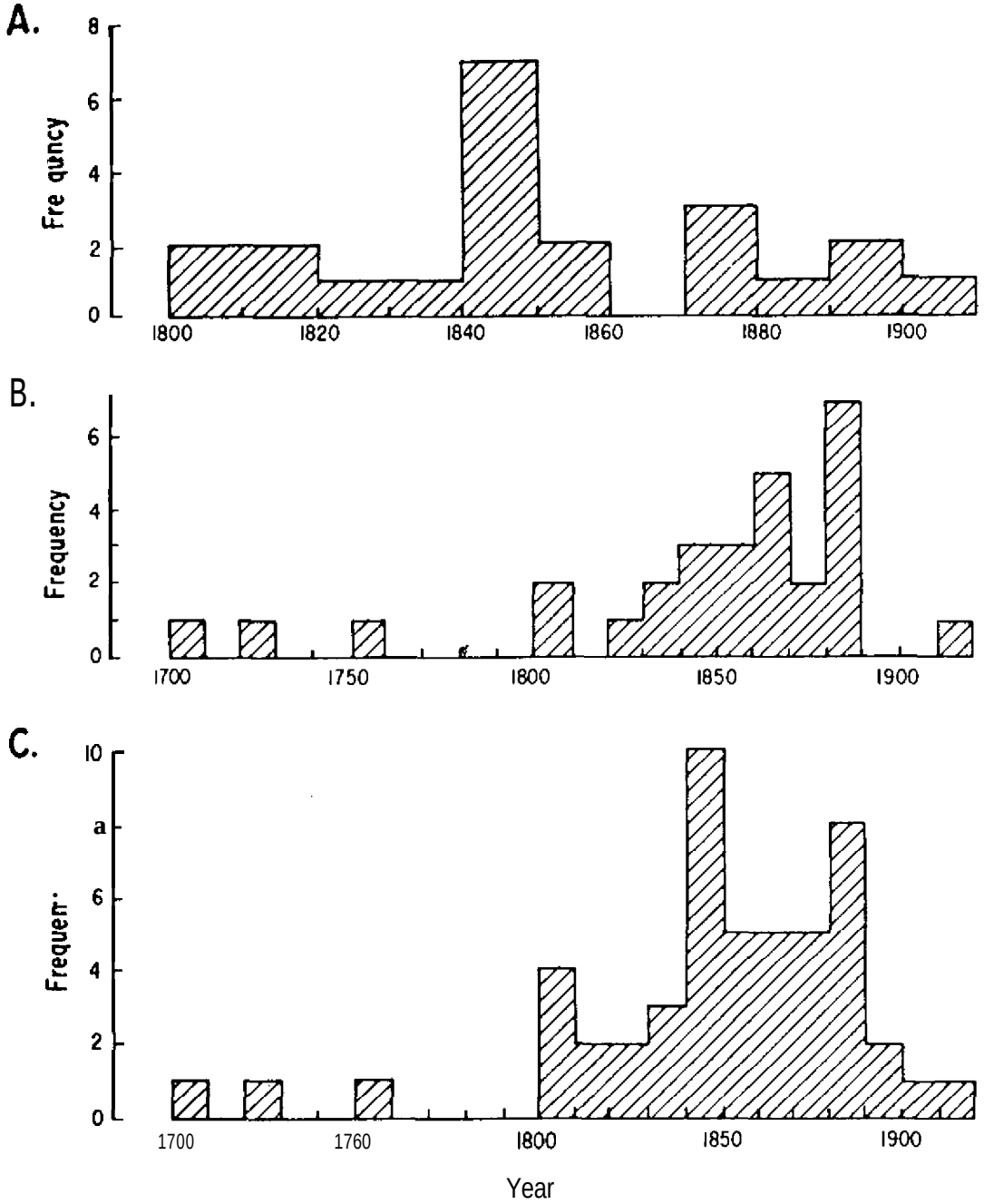
These inquiries and calculations reveal the complexity involved in seeking to reconcile time estimates from different cultures and disciplines. Using an estimate of roughly a thirty-year span for each generation as an indication of time past from an estimated date of birth of his informants, Paul Mai arrived at the data recorded in Table 3. Whether

TABLE 3. Enga Genealogical Estimates of the Date of the Time of Darkness

Enga Research No.	Informant's Approximate Date of Birth	Darkness x Generations Earlier	Estimate of Years before Informants Birth	Best Estimate Years AD
1	1914	1	30-15	1899
2	1918	2-3	70	1848
3	1919	2-3	70	1849
4	1932	3	90-15	1857
5	1915	3	90-15	1840
6	1924	2	60-15	1879
7	1917	3-4	110	1807
8	1939	3-4	110	1829
9	1917	2	60-15	1872
11	1914	1	30-15	1899
12	1930	3	90-15	1855
13	1925	3-4	110	1815
14	1934	2	60-15	1889
15	1920	1	30-15	1905
16	1919	1-2	45	1874
17	1918	3	90-15	1843
18	1922	3-4	110	1812
19	1922	3	90-15	1847
20	1916	2-3	80	1836
21	1914	2-3	70	1844
23	1908	4	120-15	1803
24	1924	3	90-15	1849

Source: Data from Mai [1981].

Reprinted from Biong 1982: 178.



Estimates of date of time of darkness based on genealogical data: (a) estimates from Enga Province [after Mai, 1981); (b) other estimates; (c) (a) and (b) combined

FIGURE 2. Comparison of estimates of the Time of Darkness. (Reprinted from Blong 1982: 179)

the estimated years of the eruption reached by Blong in the fifth column of this table are justified is a matter of debate. In Figure 2 Blong then compares these dates with those arrived at from other sources. Two points are clear: the genealogical "dates" for the Time of Darkness reveal a wide range among a small sample of only twenty-four Enga informants; and there are discrepancies between the dates arrived at by this method and those deduced from other evidence.

Blong generally concludes that more reliance can be placed on the written record and carbon dating than on dating arrived at on the basis of genealogical estimates. I am disinclined to reject the genealogical evidence; rather, I would interpret it in a different way. Using estimates based on a possible span of thirty years for each generation is only a relative indicator of time past, not to be linked with calendar dates: the two time systems, one relative, the other absolute, are difficult to reconcile. That a date can be found to be earlier in time, by canons of contemporary Western historical interpretation, than these genealogical estimates points to other characteristics of genealogies. In Enga and other oral cultures where genealogies are central to the people's sense of their roots and identity, it seems that there are floating genealogical blocks by which contemporary clansmen are linked with lineage, subclan, clan, and clan cluster founders.[5] Between these blocks there may be further genealogical steps that are not specifically remembered. If total recall was possible, a full genealogy might extend into several additional generations that would push it back further in chronological time. The names recalled for Mai were within the lineage and subclan blocks, so conceivably the Time of Darkness occurred much earlier than recalled within the genealogical frame, in fact, much closer to the times suggested by written evidence and carbon-dating estimates.

Here is the way in which Blong draws his conclusion:

> The strongest lines of evidence would seem to be the historical evidence and the radiocarbon dates. The historical evidence indicates that the eruption could not have taken place after about 1800 or in the period 1660-1680 to 1700, depending on the time allowed for revegetation. Combining the historical evidence with the radiocarbon dates we conclude that the eruption and associated events occurred almost certainly in the mid-seventeenth century (say 1630-1670) but we cannot totally deny the possibility that the eruption occurred post-1700.
>
> The paleomagnetic evidence, such as it is, also supports a mid-seventeenth century age. On the other hand, the ^{210}Pb date of 1680-1690 is in direct conflict with Dampier's description of

> Long Island. Presumably, the lead-210 dates / do not support, as yet, either a seventeenth or an eighteenth century date for the eruption. Similarly, the volcanic evidence can be used to support either argument.
>
> Finally, almost all the genealogical dates indicate a mid-nineteenth century date for the linked events [Figure 2]. Such a date, in fact any nineteenth century date, would seem to be totally precluded by observations of passing mariners, the Rai coast sojourn of Nicolai Miklоucho-Maclay and the 20-30 years necessary for the revegetation of Long Island.
>
> Thus the notion that Long Island erupted, Tibito Tephra fell and the time of darkness legends were generated in the mid-seventeenth century would seem to be in at least reasonable accord with all of the evidence except the bulk of the estimates based on genealogical dating. On the other hand, the notion that the linked events occurred in the early mid-eighteenth century is also in some agreement with most of the evidence except the paleomagnetic and, again, the bulk of the genealogical dates.
>
> As it seems necessary to regard the radiocarbon dates as the soundest of the 'scientific' techniques employed here, the author's view is that a seventeenth century age is more probable than an eighteenth century date. However, it is perhaps more important to note, whichever date is 'preferred', that the genealogical dates based on the time of darkness legends are seriously in error, many of them by 200 years or more. (Blong 1982: 193-194)

This final Pandora's box once more warns us that Enga memories of time past cannot easily by fitted into chronological frames from Western science and history. What was evident in this inquiry into the Time of Darkness was that the memories of the men who spoke to Mai, the other undergraduates, and me were rooted in the lived past. Some of these men could take us to garden sites where volcanic ash, which was chemically identified as Tibito tephra, could be dug up. That provided evidence for carbon dating. Once more, in Enga life, time past and time lived intersected in creative ways.

Conclusion

What this exploration has proven to me is more than the need to have a healthy respect for the nuances and complexity of time, memory, and history in cultures other than our own literate Western tradition. It also

provokes me into wondering what may be the nature of the categories of time by which we live and whether a sensitive cross-cultural inquiry may lead us to question and evaluate afresh the ways in which industrialized societies portion, understand, and live time. An Australian poet, lamenting the drowning of a close friend, also draws our attention to these realities:

> Time that is moved by little fidget wheels
> Is not my Time, the flood that does not flow.
> . . . . . .
> Where have you gone? The tide is over you,
> The turn of midnight water's over you,
> As Time is over you, and mystery,
> And memory, the flood that does not flow.
>
> (Kenneth Slessor, "Five Bells")[6]

NOTES

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1. Enga Province, Papua New Guinea, comprises over 160,000 people speaking a number of mutually intelligible dialects. They reside in dispersed hamlets scattered along the floors of interlocking valleys at altitudes ranging from about 1,500 to 2,500 meters above sea level. Their territory covers 10,000 square kilometers of mountainous country west of the Mount Hagen range. The term "Enga" comes from a name given by people living in the Mount Hagen region to those living west of the range. These people in turn called Hageners "Simbai" or "Timbai." Prospectors moving up the Sepik River in 1929 met northern Enga. The Leahy brothers traveled into parts of Enga country during 1934, as did, probably, the Fox brothers in the same year. Later J. L. Taylor walked through the main valleys on his Hagen-Sepik patrol in 1938-1939. Colonial administration was begun about 1943 as part of the wartime Australia New Guinea Administrative Unit (ANGAU) structure (Lacey 1979b: 277).

2. See, for instance, Foster's review of the different studies of the *tee* (1985) and Feil's earlier and very detailed monograph (1984).

3. *Kamongo* means literally "rich man," though more often than not in anthropological literature the term "big-man" is used. These were the men, who with their allies and friends, *kaita miningi* (holders of the way), negotiated and manipulated resources to ensure the flow of valuables through networks of exchange. Feil has examined the behavior of *kamongo* and their friends in *tee* exchanges among the Tombema Enga (1984: chs. 5-6). His study is a valuable contribution to our understanding of the dynamics and tensions of exchange.

4. Rigby reminds us that the three time categories that Evans-Pritchard (1939) recorded for the Nuer pastoralists were "genealogical time," "structural time," and "ecological time," He neglects to refer to Panoffs important category of "historical time," perhaps because his focus is largely on African studies. He does, however, argue that Evans-Pritchard was culture-bound in his interpretation of these categories (Rigby 1983:433).

5. This idea of floating genealogies was proposed in conversation by Jan Vansina, based on his own and other historians' work on African precolonial history. He raises some important issues about memory and oral tradition in the chapter of that name in a publication by historians of Africa (Vansina 1980).

6. This extract, probably originally published in Slessor's *One Hundred Poems: 1919-1939,* is reproduced from C. Wallace-Crabbe, ed., *Six Voices: Contemporary Australian Poets* (Sydney: McGraw-Hill, 1977), 17, 20.

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