III. DISCUSSION AND CONCLUSIONS

It is the purpose of this section to place the materials from EdRa 22 and EeRa 4 in the chronological framework previously established for the Kamloops locality. Secondly, results of excavations in the outside house pit area, and in the six small cultural depressions will be discussed. Finally, some recommendations for future research for the South Thompson area will be proposed.

Brief History of Archaeological Work

Most previous archaeological research in the Kamloops locality was done by Robert Wilson (this volume) when he excavated seven sites along the South Thompson River. Wilson outlined a cultural chronological framework for the area, and the materials from EdRa 22 and EeRa 4 will be placed within this framework.

Other work in the area was conducted by H.I. Smith (1900). He excavated at three sites at the confluence of the North and South Thompson Rivers near the Indian Residential School. The Chase burial site was excavated by Sanger and Borden in 1960 (Sanger 1969), and work was also carried out near Chase by Johnson-Fladmark (1973) and Eldridge (1974). The Pemberton Village site (EeQx 2) on the north bank of the South Thompson River near Pritchard was excavated by Eldridge and Blake (1971). At the Rocky Point site (EdQx 20), on the south bank of the South Thompson River approximately 30 km east of Kamloops, Blake (1976) entirely excavated a single house pit in an attempt to determine in-house activity areas.

Chronological Archaeological Units

Two prehistoric cultural phases have been outlined for the Kamloops locality: (1) The Thompson Phase, *ca.* 2000–1400 B.P.; and (2) The Kamloops Phase, *ca.* 1400–200 B.P. This is followed by the Protohistoric period, 200–125 B.P. Wilson (this volume) has suggested that:

> The onset of the Medithermal in the South Thompson area may have influenced the initial occupation of the river floodplains in the Kamloops locality. This and other data, especially Elmendorf's cultural ecology of the Interior Salish, and Palmer's cultural ecology of the southern Shuswap, all suggest that the initial intensive occupation of the Kamloops locality started around 2000 B.P.

The definition of two phases within this area are based largely on changes in technology, house pit form, and inferred subsistence patterns. Characteristic traits of the Thompson Phase are listed by Wilson (p.8 this volume).

The temporal trend in projectile point styles appears to be from early large corner-notched dart points through to smaller corner-notched dart points, and finally to small side-notched arrow points. Generally, the Thompson Phase contains mainly dart points, although Wilson states that in his assemblages small numbers of arrow points are found. Also, expanding stem points appear to cluster earlier in time than straight stem points (Wilson this volume p.9).

The Thompson Phase also contains spall tools, and a higher percentage of endscrapers (4x) than the Kamloops Phase, as well as all formed bifaces except for the pentagonal type. Wide spur (rounded) gravers also appear to belong to the Thompson Phase, while those with narrow spurs (sharp) belong to the Kamloops Phase. Wilson also notes the presence of microblades in the Thompson Phase, although his sample size is only five, and no microblade cores were recovered. The microblade technology therefore must be relatively insignificant.

Chronology of EdRa 22

Based on Wilson's distribution of artifact types, it appears that the largest proportion of the artifactual material recovered from this site is representative of the Thompson Phase. Areas 13, 14, and 16 contain no diagnostic artifacts, so little can be said about their age on the basis of artifact styles. Artifacts from Areas 1, 2, 15, and possibly 6, appear to represent the Thompson Phase. The only difficulty in fitting these artifact assemblages into Wilson's definition of the Thompson Phase is that they possess a higher percentage of sharp than round gravers, and there were no microblades or chipped stone drills present.

Area 4 contains a side-notched projectile point and a bone awl, objects generally thought to represent the Kamloops Phase. Area 4 also lies directly to the west of a large house pit (the largest), that exhibits a well-defined rim, lip, and steep walls, characteristic of the Kamloops Phase.

Table 12 lists those charcoal samples submitted for radiocarbon analysis. Age estimates received on these samples are:

Sample #	Isotopes #	Age Estimate	Date
1–C1	I–10,061	1,995 ± 190 B.P.	45 B.C.
2–C1	I–10,032	520 ± 85 B.P.	1430 A.D.
2–C3	I–10,033	2,235 ± 90 B.P.	285 B.C.
4–C3	I–10,105	490 ± 80 B.P.	1460 A.D.
6–C1	I–10,486	385 ± 80 B.P.	1565 A.D.
15–C1	I–10,487	1,200 ± 85 B.P.	750 A.D.

Table 12. Samples submitted for C–14 analysis (EdRa 22)

Sample #	Area	Unit #	Provenience
1–C1	H.P.1	N101–102 E111–112	N101.67–102.00 E111.69–112.00 76 cm below surface

Description: This sample comes from feature 1–3, a pit found on the house pit floor. It will date the pit and associated occupation floor of the house pit.

2–C1	Area 2	N99–100 E107–108	N99.00–99.15 E107.34–107.87 15–20 cm below surface

Description: This sample comes from the hearth feature 2–1 on the west side of House Pit 1 and will date the outside cultural zone and associated artifacts.

2–C3	Area 2	N99–100 E117–118	N99.00–99.75 E117.00–117.35 45–60 cm below surface

Description: This sample comes from within the large pit feature 2–2 on the east side of House Pit 1 and will date the contents of the pit.

4–C3	Area 4	N114–115 E155–156	level 4 35–40 cm below surface

Description: This sample will date the bottom of the fire cracked rock zone.

6–C1	Area 6	N123–124 E176–177	17 cm below surface

Description: This sample was taken from throughout level 2 and comes from part of the burned roof structure. It will date the collapse of the roof.

15–C1	Area 15	N143–144 E212–213	N143.41 E212.47 30 cm below surface

Description: This sample consists of large pieces of charcoal from the hearth feature 15–3, and will date the hearth and associated occupation floor of the structure.

From the C-14 estimates, H.P. 1 and the associated pit feature 2–2 fall well within the limits of the Thompson Phase, and Area 15 dates the period near the end of the Thompson Phase and the beginning of the Kamloops Phase. The hearth feature found outside House Pit 1 in Area 2 (sample 2–C1) is obviously not associated with the occupations at the site.

Based on artifact styles, house pit form, and the radiocarbon estimates, it appears that the Curr site was inhabited from approximately 2300–300 B. P., or most of the known local prehistoric sequence. Whether or not it was inhabited repeatedly from year to year is unknown, however it is clear that all of the cultural depressions, house pits, and outside areas are not contemporaneous. The size of the site and the number of surficial features evident now, can be misleading in terms of envisioning how the village was composed during its occupation. Age estimates indicate that this site has been utilized as a village location for over a period of about 2000 years, and undoubtedly most of the house pits were occupied time after time.

Chronology of EeRa 4

The meager sample of artifacts recovered from this site consisted of large corner notched points with expanding bases, and an antler wedge, artifacts representative of the Thompson Phase. Testing also yielded decorated incised bone, and large circular house pit depressions with ridges, two criteria indicative of the Kamloops Phase.

The single charcoal sample from a hearth on the floor of House Pit 1, yielded a radiocarbon age estimate of 2080 ± 80 B.P. (I–10,485) – a date earlier than any of Wilson's Thompson Phase dates. If this age estimate is correct, then large circular house pits with ridges, and incised bone, may not be cultural traits distinguishing the Kamloops Phase. House pit form may not be therefore temporally significant, but may be related to some other factors, such as the size of the family unit. Wilson's proposed trend in house pit form through time from small saucer-shaped to large ridged is questionable. The occurrence of large circular ridged house pits with the initial occupation on the South Thompson, fits in better with the evidence from the mid-Fraser region (Stryd 1973a), where the large circular ridged house pits occurred around 3000 B.P.

Carbon sample description submitted for EeRa 4

Sample #	Area	Provenience
1–C2	House Pit 1	S10.60–10.85 W30.00–30.48 65–67 cm below surface

Description: This sample was from a concentration of charcoal on the floor of House Pit 1, and consequently will date the occupation floor.

Discussion

What the "transition" between the Thompson and Kamloops Phases means in terms of adaptive culture change is not exactly clear. Is there concrete evidence to differentiate early and late phases in the Kamloops locality, and on what criteria? Does the settlement pattern change within the South Thompson locality? Are there overall changes in the subsistence pattern from early to late, and can changes in demography and social organization be inferred? Wilson states that traits marking the change from the Thompson to the Kamloops Phase are: "introduction of small side-

notched projectile points, cache pits, large house pits, bone technology, ornamentation, the inferred change in subsistence emphasis from hunting to fishing, and inferred increases in population size" (this volume, p. 82).

An inferred change in subsistence emphasis from hunting to fishing seems somewhat dubious. Evidence for the increased use of the bow and arrow in the later period appears to be more indicative of increased hunting efficiency than vice versa. Wilson also suggests that the possibility of a greater reliance upon hunting than fishing in the Thompson Phase is indicated by its higher percentage of chipped stone artifacts, assuming that bone artifacts are used more in fishing technology. However, as has been noted by Wilson himself, this may be more indicative of poorer bone preservation than of any cultural phenomenon. Also, many of the implements of a fishing technology such as nets, weirs, and hooks, are made of wood which would not survive in the archaeological record. The soil conditions are extremely alkaline within this area and are generally very poor for bone or wood preservation. It is proposed here that the evidence suggests increasing technological efficiency within both hunting and fishing strategies through time, and that increasing emphasis on one or the other form of subsistence is not well enough documented.

Population increase has also been postulated for the Kamloops Phase, because of the introduction of larger house pits, and more cache pits. If the adaptive efficiency of the subsistence technology increased, then population increase may have occurred. However, I would argue that an increase in house pit dimension does not indicate a population increase during this time period in the Kamloops locality, due to other conflicting evidence. First, the Kamloops Phase sites may contain larger house pits than the Thompson Phase, but there are fewer of them within each site. This is evidenced in Wilson's assemblages, and also at the Curr site. Second, there are fewer sites containing Kamloops Phase components than Thompson Phase. Third, it must be taken into account that the Thompson Phase is only half as long as the Kamloops Phase, i.e., 600 years in duration as compared to approximately 1200 years for the Kamloops Phase.

The early date of 2080 ± 80 B.P. on the large circular ridged house pit at site EeRa 4 also strongly argues against this house pit form as being only late. Possibly the occurrence of larger house pits represents the aggregation of family units into fewer but larger houses, rather than a population increase. That variations in pit house structures did occur is documented by Smith (1947) and Ray (1939), including differences in the size and shape of the initial excavation, and in roof pitches and post patterns. Stryd (1973a: 410–416) documents variations in size and post patterns of archaeological pit houses in the Lillooet area, but does not attach temporal significance to house pit size and structure. Stryd (1972:38) states,

> . . .other attributes such as overall size, geometric shape, and maximum depth do not have temporal significance. Instead, local environmental conditions and possible familial traditions of pithouse construction seem to be more instrumental in determining the structural attributes of the dwelling.

I would suggest therefore that an increase in house pit dimension need not imply a population increase during the later time period in the Kamloops locality.

The hypothesis that an increase in number of cache pits during the Kamloops Phase is indicative of greater resource utilization leading to population increase may also be questioned. It is possible that caches may be simply less visible in earlier sites, due to the greater amount of time available for their obscuration. This possibility is supported at the Curr site where the large pit feature #2–2, representing a probable cache or cellar outside of House Pit 1, was not visible surficially at all.

In conclusion it is questionable whether or not it is possible to define an early and a late phase in the Kamloops locality on anything other than a change in point styles from large corner-notched to small triangular side-notched. While Wilson infers change in subsistence emphasis from hunting to fishing, population increase, change in house pit form, and increased storage facilities from the Thompson Phase to the Kamloops Phase, I would suggest that there is no substantial evidence to date for this. The concept of 'phase', while controversial in the archaeology of the Interior Plateau, is still useful however in those terms as stated by Stryd (1973a:22), that,

> . . .it permits us to translate the alternations and fluctuations in material culture into an orderly and more manageable sequence of units without necessarily implying drastic changes in the life ways of people responsible for that material culture.

Therefore it can be said that there is to date conclusive evidence indicating changes in point form through time, however, that only advises for the use of phase in the sense of ordering archaeological material culture, but does not necessarily infer great changes in the overall cultural pattern.

Interpretations of Activity Areas

Areas Outside House Pits

In order to carry out a spatial analysis of "activities" within an occupation, you have to be sure that the past depositional process represents a single temporal event in order that you don't run into the problem of two or more activities occurring at the same location, but at different times, and showing no discrete spatial depositional boundaries. Also, you have to be sure that you are dealing with a deposit of primary refuse, or "those cultural items on the location of use, manufacture or procurement" (Schiffer

1972:162), and not secondarily deposited refuse such as that incurred with the aboriginal cleaning of the house and dumping of the garbage outside.

Early in the field season it became evident that due to the number of occupation floors recovered outside the house pit, a single temporal activity area associated with the house could not be delineated. It was therefore not possible to attempt a spatial analysis as originally proposed, of a discrete occupation area and its specific activities in relation to the house. There was simply too much mixing of refuse over what appeared to be a long period of time. Also, as was later revealed by the radiocarbon estimate, the hearth outside the house is 1,475 years later in age than the house. Therefore the research aim was altered to investigate only general outside activities cross-cutting occupations.

The outside area yielded abundant artifacts, features, faunal remains, and other refuse. it contained an accumulation of projectile points, bifaces, knives, retouched flakes, preforms, scrapers, gravers, hammerstones, bone beads and tubes, chipping detritus, hearths, storage pits, post and stake holes, and an artifact cache. This debris probably represents a gradual accumulation of artifacts and refuse, and may indicate the following activities as having been carried on outside the house:

1) cooking and food preparation as represented by hearths and animal bones;
2) production of tools, represented by waste flakes;
3) production or modification of hunting tools as represented by stone points;
4) scraping and cutting tasks represented by knives, scrapers, gravers, and retouched flakes;
5) food storage as represented by outdoor pits or cellars, and by posts and stake holes possibly indicative of drying racks or above ground caches.

This accumulation of refuse, while not indicative of any single discrete and specific activity, is representative of general activities carried out within the spatial vicinity of the house. Essentially all artifact classes represented within the house also occur outside, in similar proportions. It appears therefore that there is no positive support for the suggestion that different subsistence and technological activities were carried on outside and inside the house. This statement must be viewed with care, however, for the possibility always exists that artifacts may not have been found in their area of manufacture or utilization, but may have been carried there for other reasons such as the cleaning of the house. The whole problem of artifact curation, and primary and secondary deposition is extremely important to consider when trying to interpret, even generally, past "activity areas".

Studies done on activity areas within houses such as that by Blake (1976) for a house pit on the South Thompson River, are so fraught with assumptions about the past cultural and natural depositional processes, as well as certain statistical assumptions, i.e. assuming normal distributions, as to render the results highly speculative. His predictions are only distributions of artifact classes which give no interpretations of activity areas, as he states that, "each class analyzed was labelled with a corresponding arbitrary activity so as not to indicate function" (Blake 1976:20). It is difficult to see how an artifact class distribution can represent an activity, arbitrary or otherwise, and particularly without function. These problems are so great, that I am extremely reluctant to place much validity on the whole concept of the "activity area", and its contributions to Archaeology to date.

Storage Pits

The contents of the large circular pit outside house pit 1 provided some information on domestic activities. It seems likely that food storage was the major function of this subterranean pit. As well as a notable amount of faunal remains (yet to be analyzed), indicative of food storage, this pit also contained artifacts that may have been abandoned while in storage. These included a large number of scrapers, as well as stone points, bone beads, and retouched flakes. Thus, household implements may have been stored in outside pits. The pit also contained a large amount of refuse such as unmodified flakes, and while probably originally used for storage, was eventually used as a refuse container. The abandonment of the pit probably occurred in conjunction with the abandonment of the house, and perhaps house debris was swept into the pit.

While cache or storage pits are common for the sites in this area, pits of the large size and depth of this one have not been previously described. Interestingly, this pit was not visible surficially at all which leads one to question the idea that cache pits may only have become numerous during the Kamloops Phase. The real possibility exists that caches may simply be less visible in earlier sites, due to the greater amount of time available for their obscuration. In general, due to the amount of material recovered, it is concluded that excavation in areas outside house pits is of value to the archaeological interpretation of a site as a whole. Initially, because of statements in the literature that "...the preliminary testing revealed comparatively little cultural data outside house-pits" (Wilson 1976:23), it was thought that little information could be collected from these areas. This inital assumption appears false for this site, and it is recommended that these areas be further tested in other sites.

Small Cultural Depressions

Untested assumptions about the function of the small shallow circular depressions often found surficially at sites along the South Thompson River, are that they represent the remains of the summer dwelling or mat lodge. This assumption has been stated very early in the literature, for example, Harlan I. Smith (1913: 18) writes that,

> "On the sites of the old villages there are shallow saucer-shaped depressions, like those formed by continual sweeping in the conical lodge or summer house of the modern Indians".

Excavations in some of these small shallow depressions have revealed stratigraphic evidence of well defined 'roof-fill' and 'floor' zones in Areas 4, 6, 15, and 16, and it is therefore probable that these areas are not representative of mat lodge remains where roof-fill zones would not be expected. A hearth found on the floor of Area 15 would also indicate that it is a winter dwelling. The presence of large post holes would also argue against light mat lodge structures. Menstrual isolation huts were also constructed like small pit houses (Teit 1900), although due to the number of projectile points found within these areas, it does not seem likely that these depressions are the remains of isolation huts. Area 4 is somewhat more complex than the others. It was apparently originally a small pit house, as evidenced by a 'floor' and 'roof fill' zone, large post holes, and a cooking pit almost identical to the one excavated in House Pit 1, but was later reused probably as a fire cracked rock refuse area from perhaps the large house pit adjacent to it, or possibly some form of oven.

Areas 13 and 14 revealed so little cultural material (1 unifacially retouched flake from Area 14), that it is difficult to determine their function. The pits may be small enough to represent some form of cache.

More work should be done on small depressions in winter pit house villages. Functional interpretations derived from this study do not coincide with the common assumptions and indicate further study is required.

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