Abstract

Who's Who on the Monument?
Virgin, Kayenta, and Fremont Relationships

Recent investigations in the Kitchen Corral drainage reinforce the contention that the puebloan occupation on the eastern Grand Staircase is a local expression of the larger Virgin Tradition rather than Kayentan. The continuity of the Virgin sequence (A.D.1-1200+) was, however, interrupted just prior to A.D.1100 by a sudden influx of material culture traits and architecture that are considered to be the result of a migration by Kayentan culture bearers. By A.D. 1150 the migrants had been assimilated into the local population, the ceramic assemblage became complacent, and the underlying Virgin adaptive strategy continued its trajectory into the 13th century. The nature and timing of the Kayenta migration to the Grand Staircase has potential relevance for interpreting similar events on the Kaiparowits Plateau.

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INTRODUCTION

My approach to defining and dealing with the several Formative period cultures represented on the Monument has been to consider each as an adaptation to its natural and social environment. To a large degree, the three adaptations identified coincide with the major physiographic sections represented on the Monument. They are: an expression of the Virgin Tradition (Euler 1996) on the Grand Staircase, a local variant of the Fremont Complex (Madsen and Simms 1996) in the Escalante Basin, and what has been traditionally viewed as a brief and intrusive "Kayenta" occupation on the Kaiparowits Plateau (Lister 1963; Jennings 1966).

Key to understanding the trajectory of each of these adaptations has been the development of local chronologies, based on both radiocarbon and tree ring dates, that allow tracking the specific developmental histories for each physiographic area. The basic utility of these time-space frameworks is to provide a systematic means of recording sites in the field based on temporally sensitive observations of artifacts and architectural traits. The result of this approach is a distribution pattern of various site types that reflect discrete settlement patterns which, in turn, have been the basis for describing local models of adaptation (McFadden 1996,1997). Two long-term, indigenous, and contemporary adaptive strategies have emerged from the data: the Virgin Anasazi on the Grand Staircase and the Fremont in the Escalante Drainage.[1]

Indigenous Adaptations on the Monument

During the early phases of the Virgin Anasazi and Fremont sequences (to circa AD 1050), there is little evidence of contact between these two indigenous groups, each pursued a geographically exclusive and locally specialized adaptation (McFadden 1997). The Virgin Anasazi strategy on the Grand Staircase relied heavily on upland farming and, although sedentary, featured a strategy of mobility that allowed residential shifts within the agricultural zone in accord with changing

conditions (McFadden 1996).

The Escalante Fremont settlement pattern suggests a bimodal subsistence, focused on small-scale farming in riparian zones during the summer, and an equal dependence upon foraging and upland big game hunting during the winter (McFadden 1997).

The "Kayenta Intrusion"

The central theme of this paper is the " Kayenta intrusion" (Lyneis 1996) - an event manifested by the abrupt appearance of a constellation of exotic, so-called "Kayenta", material culture traits that occurred simultaneously in both the Virgin and Fremont areas of the Monument during Pueblo II times (circa AD 1050/1100). Perceived as a case of cultural "trait mixing", this phenomena has been described as "Virgin-Kayenta" on the Grand Staircase (Aikens 1966), a "blend" of Kayenta and Fremont in the Escalante region by Jennings (1966), and as evidence for a "sociocultural continuum" between all of them (Madsen 1997).

This paper focuses primarily on the architectural evidence for the Kayenta intrusion in both the Virgin Anasazi and the Fremont occupied areas of the Monument. Although a wide range of artifactual traits can be cited as evidence for Kayenta influence, in the context of selection, all cultural traits are not equal. One of the least ambiguous for defining migration is architecture (Clark 2001).

> "In traditional societies, much of the knowledge of building is passed from generation to generation within the household, settlement, or community. Hence, there should be differences in architectural construction between newly arrived migrants and local groups, *particularly in the earliest construction episodes following migration* (emphasis mine)(Clark 2001:57).

In order to identify the introduction of new types of architecture and construction methods we need an understanding of the existing patterns. The following is a brief review of Virgin architectural patterns .

The Virgin Pattern

The indigenous architectural sequence throughout the Virgin area - from the lower reaches of the Virgin River, across the Arizona Strip to the eastern margins of the Grand Staircase - may be characterized as conservative. The typical upland site throughout the 1,000 year plus sequence is small, usually consisting of a household unit or two. During the Basketmaker III period (AD 400-700), residential sites are represented by a cluster or arc of storage cists associated with a shallow pithouse. During Pueblo I times (AD 700-900) increasingly formal alignments of non-contiguous, deep slab-lined cists were laid out with open activity areas and extramural hearths on the south between the storage units and a pithouse. By Early Pueblo II (AD 900-1050) deep cists were beginning to be replaced by shallow, slab-paved, rectangular storerooms. Typically, each room was constructed as a separate unit by lining the perimeter of the slab-paved

floor with upright slabs and constructing a superstructure of jacal or wattle and daub. The rooms were constructed sequentially, abutting one another to form frequently sizable alignments.

While residential rooms were eventually incorporated into the roomblock, the shallow benched pithouse continued to be used until about AD 1050. Of particular interest is that pithouse architecture became increasingly formalized with regular floor features, including: sand-filled bins, vaults, clay-coped hearths, ash bins, and vent shafts. These distinctive structures occur in both the St. George Basin (Dalley and McFadden 1987) and as far east as Kitchen Corral (Ahlstrom 2000).

Rock Art. An ideological trait consistency that ties the Virgin "culture area" together is rock art. Cave Valley style anthropomorphic figures appear as early as Basketmaker III or Pueblo I times and can be found from the St George Basin to the eastern margins of the Grand Staircase.

Ceramics. The trajectory of Virgin ceramics parallels the conservative nature of the architectural sequence very closely. Utilitarian plain gray jar styles slowly change from simple elongated, straight- necked Basketmaker forms to a distinctive globular jar form with everted rim by the close of the Early Pueblo II period. Black-on-gray types evolve from Lino styles, through a related Pueblo I type called Washington B/G, to a nominal Black Mesa style called St George B/G by the close of the Early PII period.

West of Kanab Creek these types, tempered with quartz sand and made of a light- firing clay, are part of the Virgin Series. To the east, on the Monument, a local series made of dark- firing clays known as Shinarump, parallels the North Creek Gray types (Lyneis 1998).

Site Layouts. The most distinctive and remarkable characteristic of Virgin residential sites is their long occupational spans which frequently result in complex developmental sequences. Through time, individual site layouts converge and are remodeled, often resulting in "C " shaped configurations to form amazingly complex layouts that merge structures from different periods into loosely integrated wholes. It is this aspect of the archeological record that best illustrates the distinctive behavior of the Virgin adaptive strategy. Even small residential sites can display evidence for episodic occupation, spanning multiple periods, that demonstrate the importance of residential mobility for Virgin adaptation. The reuse, remodeling and accretional construction revealed at excavated sites argues for a common adaptive *behavior* that spans the length and breadth of Virgin occupation.

Construction Methods and Techniques. The continuity of Virgin architecture is, at least in part, due to the persisting use of certain construction techniques and methods. Vertical lining slabs in storage rooms, termed "baseboards" by Judd (1927) have their origin in Basketmaker slab-lined cists. The ubiquitous slab-paved storeroom floor is also a Basketmaker technique that continued for the duration of the Virgin sequence (Dalley and McFadden 1985,1987). Another common Virgin construction method in use by the Pueblo I period and very common during Early Pueblo II is the jacal, or, wattle and daub, roomblock.

Dating. Unfortunately, the latest dates available for Early Pueblo II period sites are relatively

imprecise radiocarbon dates (Fig 1). Although they are few in number, the dates suggest that the local Virgin sequence of development was interrupted sometime between AD 1050 and 1100 when a complex of material culture traits associated with the so-called "Kayenta intrusion" spread itself over the Virgin culture area. The variable distribution of these traits suggests that processes other than solely migration were involved. Kayenta Pueblo II ceramics span the entire Virgin area, indicating linkage of communities via exchange networks (Lyneis 1996:25). Bull Creek projectile points are added to the indigenous Parowan Basal-notched style in the uplands but, perhaps significantly, this is not the case in the St George Basin. Exotic forms of rock art symbolism suggest new ideologies, and most striking, is the introduction of the "unit pueblo" and the associated masonry-lined, fully subterranean pit structure.

Different Weights, for Different Traits. The significance of each of these newly introduced artifactual and architectural traits might best be assessed in terms of its overall selective context - i.e. what was its impact on the indigenous adaptive strategy? Clark (2001) in his excellent discussion on detecting prehistoric migration points out that "the appearance of new forms of material culture within a region can be explained by factors other than migration, such as exchange and emulation" (Clark 2001:6). In the Virgin culture area all three processes appear to have been at work Architecture,however, is considered the most reliable indicator of ethnicity, as well as for migration, and I will therefore focus on the evidence for it.

Dating the "Kayenta Intrusion"

While the best examples of unit pueblos occur on the eastern half of the Grand Staircase physiographic section, the best dated sites are in Cottonwood Canyon just west of Kanab. Neil Judd (1927) recorded a series of sites in Cottonwood Canyon during his investigations in 1917. He noted the essential Basketmaker - Cliff Dweller distinction apparent at several of the sites. Cave 6 (42Ka1504) was cited as the "largest Cliff - Dweller" settlement visited by him during his reconnaissance. This is the best dated and earliest site displaying evidence of the Kayenta intrusion. It remains one of the best examples of standing Pueblo II architecture in the region. Although occupied during Pueblo I times, a suite of seven tree-ring dates indicate that the late Pueblo II building episode occurred in AD 1099 or 1100, with the latest a non-cutting date of 1111vv. (Fig.2). A few other tree-ring dates and a radiocarbon date from nearby Trail Canyon support the A.D. 1100 date for the introduction of Kayenta traits in the area. Large panels of Medicine B/R and Dogoszhi B/W are among the latest ceramics found on site. A sherd of Citadel Polychrome, in secure context, supports a post AD 1090 date (Ambler 1985). Combined, the tree-ring dates, radiocarbon dates, and ceramic cross-dating indicate that the Kayenta traits were introduced between AD 1070 and 1100.

Site Layout. Although earlier architecture and the alcove itself probably affect the Pueblo II layout of this site, an "L" shaped segment, consisting of several storage rooms and a large residential room, is apparent. Judd suspected a "kiva" in front of the roomblock. In 1988 the pit structure, which had been looted since Judd visited the site, was excavated revealing a partially masonry lined, fully subterranean structure with a large niche on the north side. Further exploration revealed that pit structure cut a shallow Pueblo I pithouse. Open sites with similar

layouts occur on the eastern end of the Grand Staircase. They are our best evidence for actual migration.

Late Pueblo II "Unit Architecture" as Evidence for Kayenta Intrusion

In her discussion of late Pueblo II Virgin architecture Lyneis has pointed out that:

> "There is a zone of late Pueblo II - early Pueblo III occupation, known almost entirely from site survey, that includes the Kanab Creek drainage and areas east, in which the more rectilinear architecture has a taint of Kayenta characteristics to an eye accustomed to late Pueblo II Virgin Anasazi architecture. What this means in terms of ethnicity or interaction with other communities remains to be learned "(Lyneis 1996:26).

The survey referred to (Lyneis 1996:Table 2.2) describes the dominance of Virgin style, curvilinear, jacal roomblocks during the Early Pueblo II period and the *addition* of masonry linear roomblocks during the succeeding Late Pueblo II period (Lyneis 1996:Table 2.2). What is significant here is that these "Kayenta characteristics" occur in an area with a sizable existing (indigenous Virgin) population. This appears not to be the case in most other areas of Kayenta intrusion, i.e. the Paria Plateau, House Rock Valley, the Walhalla Plateau, and the inner Grand Canyon.

Since the above was reported, a total of 7,900 acres has been inventoried on the Grand Staircase portion of the Monument. Recorded were 459 sites, mostly architectural, that demonstrate a steady growth from Basketmaker III through Late Pueblo II times (McFadden 1996:13). While the architectural trend towards linear masonry reported in Lyneis' synthesis was reinforced by the additional inventory, a new type of site with definate implications for the Kayenta intrusion has been documented - the unit pueblo. Evidence for Kayenta expansion on the Monument, which encompasses about a third of the Grand Staircase, is best represented by what I will call "unit pueblo" architecture (Fig 3).

Unit Pueblo Description. The layout of most unit pueblo architecture is "L" shaped and consists of two unequal legs: a substantial alignment of storage rooms constructed of finely dressed masonry, and an opposing leg, at right angles with the storage rooms, that consists of several larger residential rooms. To the southeast there is frequently a depression that, in at least two documented instances, hold fully subterranean, masonry-lined rooms.

The only excavated site of this type is Corn Grower, excavated by the late Richard Thompson and Barbara Frank of Southern Utah University (Fig 3). The kiva at Corn Grower yielded (non-cutting) dates of AD 1096VV and 1148++V. Located along Short Creek in Colorado City, the Corn Grower site marks the western limit for the distribution of this distinctive site type. The majority of documented unit pueblos are located on the eastern Grand Staircase. Their relationship to other Late Pueblo II linear forms is not known. These types include a straight-line roomblock with full height masonry walls and a much smaller one or two room "fieldhouse" sized, rectangular structure which is frequently found on sites which also display typical

curvilinear Virgin architecture.

Origins. Beals, Brainerd and Smith (1945) describe similar architecture that they term "unit pueblos" from the Tsegi Canyon region but, to my knowledge, nothing similar to the Grand Staircase pueblos have been excavated. The similarity of the Grand Staircase unit pueblos with Structure A at the Coombs Site is unmistakable (Fig. 4). Tree-ring dates at Coombs are slightly later than those on the Grand Staircase Bannister, et al (1969). Thus, the inspiration for the site plan at the Coombs site could have been from the west, or, as Lister believed, it could well be the result of a direct migration from the Kayenta heartland (Lister 1963).

Pueblo III Architectural Patterns (Post intrusive behavior)

Traditionally, the date cited for the end of Virgin occupation, based on ceramics, has been AD. 1150 (Aikens 1966). It is remarkable that 11 of the 18 tree-ring dates now available *are,* in fact, within a few years of that date (Fig. 2)! Thirty-five years of excavation and inventory confirm Aikens' date for Virgin abandonment. The latest ceramic type, Flagstaff B/W, which Ambler (1985) dates to post AD 1165 , is found only in trace amounts in the region. But, confounding the situation are a number of radiocarbon dates that extend into the 13th century. (Also note the tremendous amount of trash at many Late PII sites - if a terminal date of AD 1150 is to be accepted how can we account for it ?) Several sites from the Grand Staircase provide some insight.

42Ka3328 Test Excavation. Few dates are available for "unit" pueblos on the Monument itself. 42Ka3328 was recorded as an "L" shaped pueblo in the Seaman Wash drainage east of Kanab. When a looted segment of the roomblock was cleared, it was seen that the rooms were obviously pieced together in accretional Virgin fashion, rather than constructed as a "unit". The preponderance of ceramics on site were Shinarump Series, although some Kayenta intrusives were noted. A single Flagstaff B/W style sherd found on the surface suggests a post AD 1160 date (Ambler 1985). A radiocarbon date from a floor surface yielded an intercept date of cal AD 1245 (Beta-40331) suggesting a Pueblo III period age for the site.

Although the configuration of this site is a Kayenta *styled* " L" shape, the construction methods are typically Virgin. The storage leg shows evidence of remodeling as well as accretional construction and the floors are paved with slabs or cobbles. Given the post AD 1150 date, the absence of late ceramics, and the apparent mix of Kayenta architectural style and Virgin functional features, this site raised the question: What would a post-Kayenta intrusion Virgin site look like?

The hypothetical answer is: by AD 1150 the Kayenta migrants had been assimilated into the local population and contact with populations south of the Colorado River had ceased. Isolation from the larger Anasazi world explains the complacent nature of the ceramic assemblage into the 13th Century.

42Ka3694 Kanab Creek Alcove. This alcove consists of two well-preserved rectangular masonry storage rooms situated in the upper reaches of a tributary canyon to Kanab Creek. Although presently down-cut, there is a deep deposit of alluvium in the main canyon . A spring heads just upstream. Ceramics on site suggest a long Virgin occupation including Basketmaker III, Early PII and Late PII types. The alcove is filled with blow-sand concealing all but the tops of the structures. A radiocarbon assay (1 sigma) of Cal AD 1200 to 1290 (Beta- 163063), with a intercept date of AD 1260, was taken on a twig encased in a matrix of structural adobe. Kanab Creek Alcove is one of few Pueblo III dated sites on the Grand Staircase.

The Arroyo Site; a PII/III Virgin Farmstead. The Arroyo site (report in preparation) is a good example of a Pueblo III period residential site with mixed Virgin and Kayenta traits. The site is located near the eastern margin of the Grand Staircase along Kitchen Corral Wash, a major tributary to the Paria River. In 1994 a flash flood bisected the site, exposing in profile several deeply buried structures. Excavations designed to salvage the exposed structures revealed a roomblock, two fully subterranean pit structures, two miniature pithouses and evidence for a third. The pithouses were filled with midden and produced over 13,000 sherds and a large chipped and ground stone assemblage. Eleven radiocarbon dates establish that the structures are roughly contemporary with several providing good evidence for a 13th century occupation. Taken as a whole, the mix of architectural styles, the employment of indigenous construction techniques, the overwhelming percentage of local ceramics - but presence of some Kayenta exotics, and a near 3 to 1 ratio of Parowan basal-notch (Virgin) and Bull Creek (Kayenta) projectile points, creates the impression of a hopelessly confusing "blend" of cultural traits .

slides (figures)

- subterranean pit structures which are a radical departure from the shallow benched pithouses of the early Pueblo II.
- several distinctive Virgin style mini-pithouses.
- Virgin B/W bowl; a Late PII ceramic assemblage (no Tsegi restorables) but locally produced reds, whites and grays.
- a near 3 to 1 ratio of Virgin Parowan projectile points and Kayenta Bull Creek points.
- particularly relevant for identifying Virgin adaptive behavior, is the sequence of roomblock construction with it multiple floors, each sealed with paved sub-floor in typical Virgin fashion.

Conclusions/Interpretation

The approach taken here for dealing with the so-called "Kayenta intrusion" into the Virgin culture area has been to view the phenomena in the context of the underlying, indigenous, Virgin adaptation. In this sense the Grand Staircase is viewed as an "adaptive landscape" (Bettinger 1993). While various Kayenta (stylistic) traits spread westward across the larger Virgin cultural

area through processes of emulation and exchange (Clark 2001), the distinctive architectural form and construction methods of the "unit pueblo" indicates actual migration. Site layouts and size suggest that the migrant population consisted of small groups who formed household units. The known distribution of these units suggests that they were largely restricted to the eastern Grand Staircase. Temporal data indicates that population movement occurred during a very short window of time just before AD 1100 and ceased by AD 1150.

At present, the Arroyo site is the best example of post-Kayenta intrusion occupation on the Grand Staircase. By considering migration as a intrusive behavior, within the selective context of an indigenous Virgin adaptation, the confusing "blend" of Virgin and Kayenta traits may simply be considered as representing continuity of the underlying Virgin adaptation into Pueblo III times - and a virtual disconnect from the larger Anasazi world.

LOOKING EAST: Evidence for Virgin Influence on Fiftymile Mountain

Tree-ring dates from Fiftymile Mt. (Fig. 5) suggest that the dense occupation of the plateau by Anasazi culture bearers may not have occurred until AD 1150 - about the same time that the Coombs site was occupied. Based on tree-ring dates alone, the case could be made for an eastward population shift. The recent Kaiparowits Survey conducted by NNAD found Virgin ceramics at Collet Top and Geib et al have suggested that may be the case (Gieb et al 2001). McFadden also identified Virgin ceramics at Collet Top as well (McFadden 1982) but cautioned against assuming that the sites were Virgin based on ceramics alone.[3] Lister (1963) and Gunnerson (1959) both identify significant amounts of Virgin ceramics on Fiftymile. As Lister summed up the situation:

> "Thus , the difference between Gunnerson's interpretations (based on surface survey) and ours (based on surface survey and excavation) are primarily differences of cultural alignment. He would have Kaiparowits occupation resulting from movements of Kayenta peoples from the west and would see no contact between the Kaiparowits population and the Fremont. We see Kayenta people migrating directly to the Kaiparowits, undergoing slight change because of local conditions, and coming into direct association with the Fremont. Both Gunnerson and we recognize some kind of local provincialism, which cannot yet be discretely defined" Lister 1963:75).

Kayenta "Once Removed"

Based on ceramic cross-dating, Kayenta influence on the Grand Staircase ceased by AD 1165. Flagstaff Black-on-white, which appears at that date, is rare and found only in trace amounts (Ambler1985). Given the quantity of Virgin (mostly Shinarump series) ceramics on the Kaiparowits and the probability that most graywares were locally produced, it seems entirely possible that the origin for the Fiftymile immigrants was from the west - if not Virgin per se, then Kayenta "once removed." But if we try to assign cultural identity based on architectural criteria, the occupants of Fiftymile Mt. appear to be neither Virgin nor Kayentan.

Reinventing Themselves - Whoever They Were

Both Gunnerson and Lister viewed the Fiftymile occupation as "some kind of local provincialism" (Lister 1963). Based on construction methods, most architectural types, site layouts and particularly settlement patterning, the vernacular architecture of Fiftymile does indeed appear to be unique. The question of Fremont contemporaneity was raised but not resolved. Both Gunnerson (1959) and Fowler and Aikens (1963) noted a Fremont presence on the plateau and found small percentages of Fremont ceramics (Turner Gray) at both inventoried and excavated sites. Recent inventory has documented a number of Fremont residential sites as well as isolated storage cists. The evidence for Fremont - Anasazi contemporaneity remains scant, but there is tantalizing evidence based on the presence of a few Fremont sherds on Anasazi sites and occasional Anasazi ceramics on otherwise Fremont sites. A review of the earlier Escalante Fremont adaptation is in order before we consider the subsequent Anasazi occupation.

Farming-foraging Opportunities. In the Escalante region an indigenous, Fremont population - contemporary with the Anasazi occupation of the Grand Staircase - occupied the canyons and surrounding uplands from at least AD 400 - 1000+. Based on site distribution patterns of residential architecture, isolated storage and foraging sites, the Escalante Fremont adaptation has been described as seasonally mobile and dependent upon the predictable but limited opportunities for farming of riparian areas during the summer and reliable upland big-game hunting and gathering opportunities during the off-season (McFadden 1996,1997). Judging by the consistency of site distribution patterns through time, it appears that these farming, big-game hunting, and foraging options were regulated by seasonal availability - rather than choice. Thus, there would be little reason for the Fremont to have focused on one to the exclusion of the others.

Wide Hollow Phase (AD500-1000/1050). The settlement-subsistence pattern described above is a marked contrast to the sedentary Virgin Anasazi, who relied on run-off and dry-farming. During the Wide Hollow Phase the Escalante Fremont were an isolated, autonomous population with few indications (other than stylistic) of contact with Anasazi populations. The *Wide Hollow Phase* ca.A.D.500-1050 is based on radiocarbon dates from sheltered upland sites, as well as sequences based on maize collected in the Escalante canyons reported by Keller (2000) and Geib (1996). After A.D.1050 it is not uncommon to find both Fremont and Anasazi ceramics on the same sites. This is the confounding trait-mixing blend that frustrated Madsen at Ticaboo who asked if they should be considered Freasi or Anamont? (Madsen 1983).

Fiftymile Mt. Phase Settlement (A.D.1050-1200).. The Fiftymile Mt. Phase has been proposed for the Late Pueblo II "Anasazi" presence identified on the Kaiparowits Plateau (Gunnerson 1959; Fowler and Aikens 1963), the Coombs Site (Lister and Lister 1961) the Lampstand site cluster (Aubrey and Baastand1999) and the limited activity sites of the Escalante Desert (Shum 1959). Although U. of U. workers noted a Fremont presence on Fiftymile that they thought was contemporary (Lister 1963), the preponderance of Late PII Anasazi ceramics and what was perceived to be Kayenta architecture, lead them to interpret the Fiftymile Mt. occupation to be a result of a direct migration from the Navajo Mt region (Lister 1963, Fowler and Aikens 1963). In fact, Kayenta, Virgin, and Fremont ceramics can be found on the same sites - although as Geib

points out, re-classification could change the percentages (Fowler and Aikens 1963). Based on recent work Geib et al (2002) have questioned the Kayenta cultural assignment and suggested that immigrants to Fiftymile hail from the Grand Staircase. Recent tree-ring and radiocarbon dates (Fig.) seem to reinforce Geib's earlier conclusion that the Fremont and Anasazi occupations do not overlap (Geib 1996) and that the Wide Hollow and Fiftymile Phases are sequential. How then do we reconcile the trait mixing?

A Sequential Relationship

At present, relatively few chronometric dates exist for Fiftymile Mt.(Figs 5, 6) Evidence for co-occupation of the Plateau is limited to small numbers of Fremont artifacts on Anasazi sites and a occasional Anasazi sherd on an otherwise Fremont site. As tree-ring and C14 dates accumulate, overlap between "Fremont" and "Anasazi" may yet be demonstrated or, the Wide Hollow and Fiftymile Phases may simply merge to form a continuous sequence. Either way, the indigenous, and presumably well-adapted, Fremont may well have contributed to the succeeding "Anasazi" adaptation on Fiftymile Mt.

CONCLUSIONS: REINVENTING ADAPTATION

Fiftymile Mt. Architectural Patterns. What we don't have on Fiftymile Mt is either Kayenta derived "unit pueblo" architecture or accretionally constructed Virgin style pueblos with lots of internal storage. What we *do* have is a bewildering variety of architecture that ranges from ephemeral field houses to formal pueblos such as Aspen and Three forks (Fowler and Aikens 1963). Numerous small circular to square masonry alignments of unknown function also occur. Several types of household-sized residence units occur on both the mesa top and in south aspect rock shelters. One type, found from one end of the plateau to the other, is a massively constructed, masonry, rectangular room with an encircling courtyard wall - but with no obvious storerooms (Fig. 7). High volume, on-site, storage capacity is the hallmark of sedentism. In fact, the largest storage capacity on Fiftymile Mt. appears to be in the scores of masonry granaries now recorded around the perimeter of the plateau. Many are visible only from the air, virtually all are located on ledges that are well-concealed and extremely difficult to access.

Taken as a whole, the Fiftymile Mt Phase settlement pattern suggests a degree of mobility rather than year-round sedentism. In that regard, it is similar to the earlier Fremont pattern of separate residential and storage locations which suggests seasonal mobility (McFadden 1997). The Fremont adaptive strategy and the succeeding Anasazi patterns are not incompatible. What I suggest is, *whoever* the occupants of Fiftymile Mt. were during the 12th century, they reinvented themselves - possibly by combining the mobility of the Fremont strategy with the material culture of the Anasazi.

NOTES

1) Bettinger defines adaptive strategies as: "parts of complexly coordinated patterns of behavior that extend far beyond subsistence to encompass a broad range of social , political, economic , and ritual activity - in short, the whole of cultural behavior" (Bettinger 1993:55). Madsen and Simms (1998) criticize the use of adaptive strategy as merely a substitute for "the old terms "culture" and "peoples" (Madsen and Simms (1998:277). In the view taken here, adaptive strategy does not equate with culture, in that, a "culture" may encompass multiple strategies devised to deal with different environmental and social circumstances. The Virgin Anasazi cultural "umbrella" that covers a wide range of diverse environments is an example (McFadden 1993). On the opposite end of the scale, individuals could participate within multiple adaptive milieus during the course of their lives. The archeological record, at the site level, reflects individual behavior as shaped by the adaptive groups to which they belong.

2) Use of the term "unit pueblo" for sites outside of the Four Corners area demands explanation. The term was originally used by Prudden (1903) for Pueblo II sites in the Mesa Verde area displaying a masonry roomblock, subterranean pitstructure and midden.- also called the "Prudden Unit". Beals, Brainerd and Smith (1945:14) described a variety of linear masonry structures as "unit type" from the Tsegi region. Most have a circular depression indicating a subterranean room. Dean (1996) describes "unit pueblos" in the Kayenta region at the beginning of Pueblo II (A.D.1000-1150) as "....consisting of a block of masonry and jacal living rooms fronted by a subterranean structure and a trash mound." (Dean 1996:34). These sites are said to have consisted of up 30 rooms, but most are much smaller (Dean 1996).

My use of the term is consistent with the above. It includes the distinctive 'L" shape as well as straight-line masonry forms usually with a depression apparent. Of equal importance is the use of bonded masonry techniques indicating construction of the basic unit during a single episode. Some unit pueblos have additional legs added to form "U" shaped or enclosed courtyards. It may be significant that the initial unit is generally constructed of fine masonry using well-selected and dressed stone while subsequent legs were constructed of a variety of materials.

3)The Window Sash Bench Chaining Inventory report (McFadden 1982) cautioned the assumption that Collet Top were Virgin based on ceramic affiliation; although both Shinarump and Middleton types were noted, they were thought to be in the overall context of a "Kayentan" assemblage. Bull Creek projectile points were noted but no Virgin Parowan basal notched types. Bull Creeks were not reported in the Virgin region at that time. Both "L" shaped and curvilinear Pueblos were observed on Collet Top. At that time," L's" weren't reported in the Virgin. In fact, Aiken's used the pueblo shape distinction as the basis for differentiating Virgin from Kayentan. By the early 1980's the actual length of the Virgin sequence had been demonstrated making the most striking evidence of the inventory the total lack of evidence for earlier occupation. This suggested that the occupation was a result of a brief migration to the area. Therefore, the weight of evidence pointed towards the Collet Top sites being an extension of the Fiftymile occupation rather than Virgin.

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