

Interpreting Data at the Bruce's Eddy Site (10CW1)

Solving the Problems of Missing Data from a Decades Old Excavation

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Introduction

In the early 1960s, Idaho State University excavated the Bruce's Eddy site (10CW1) along the North Fork of the Clearwater River in Clearwater County, Idaho. This work was conducted prior to construction of the Dworshak Dam, which inundated the site. The excavations produced a large, rich assemblage, but reporting was limited to two journal articles (Lynch et al. 1965; Osmundson and Hulse 1962). A comprehensive analysis and reporting of the work was incomplete for more than five decades.

In 2014, WillametteCRA was contracted by the USACE to complete the analysis.



Goals

The principal task was to analyze excavated materials and discuss site occupations in local and regional land-use frameworks. Inherent in this task was to piece together the actual location of excavation areas at the site, and provide chronological control. This work involved an examination of various field notes and other excavation records.

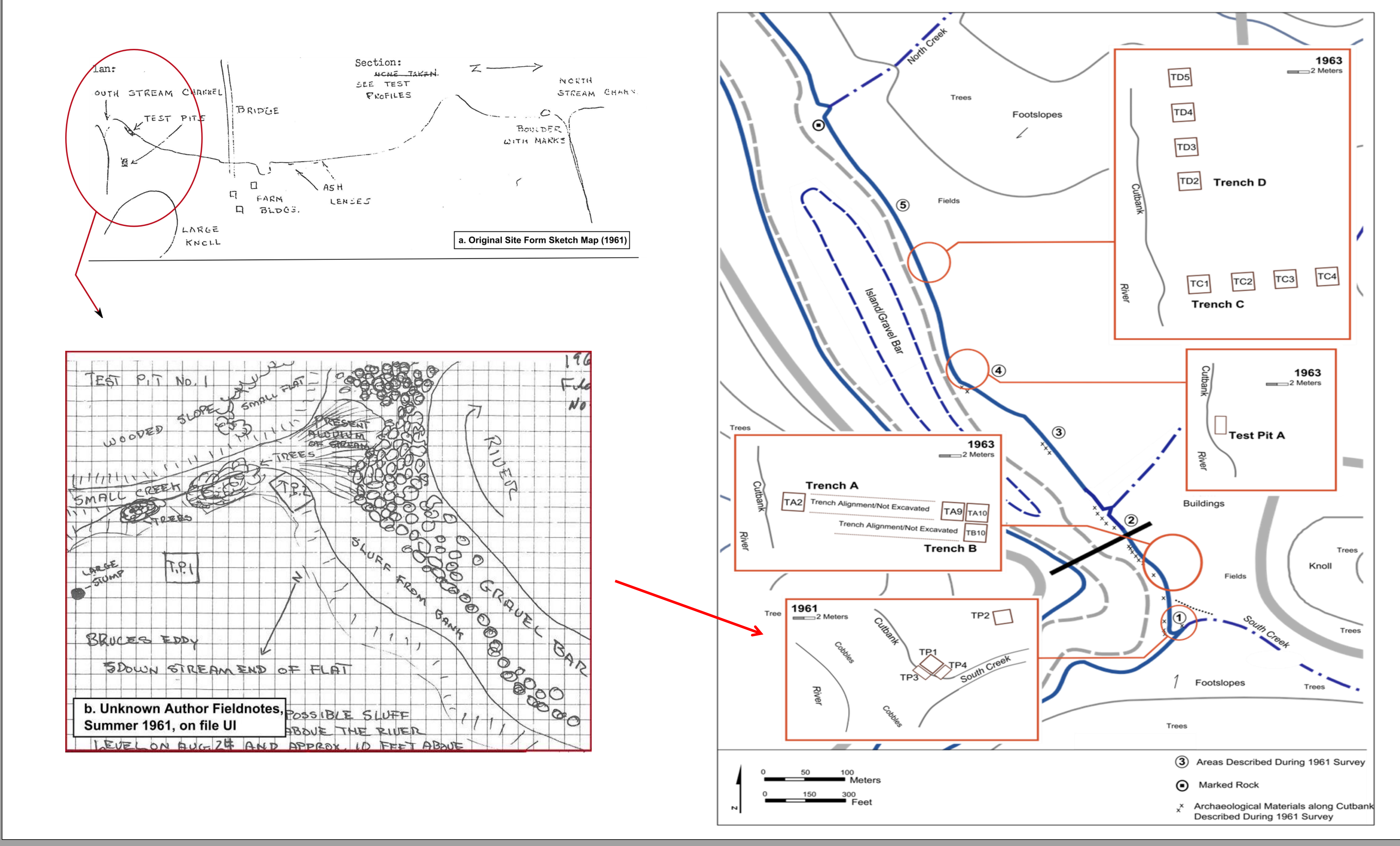
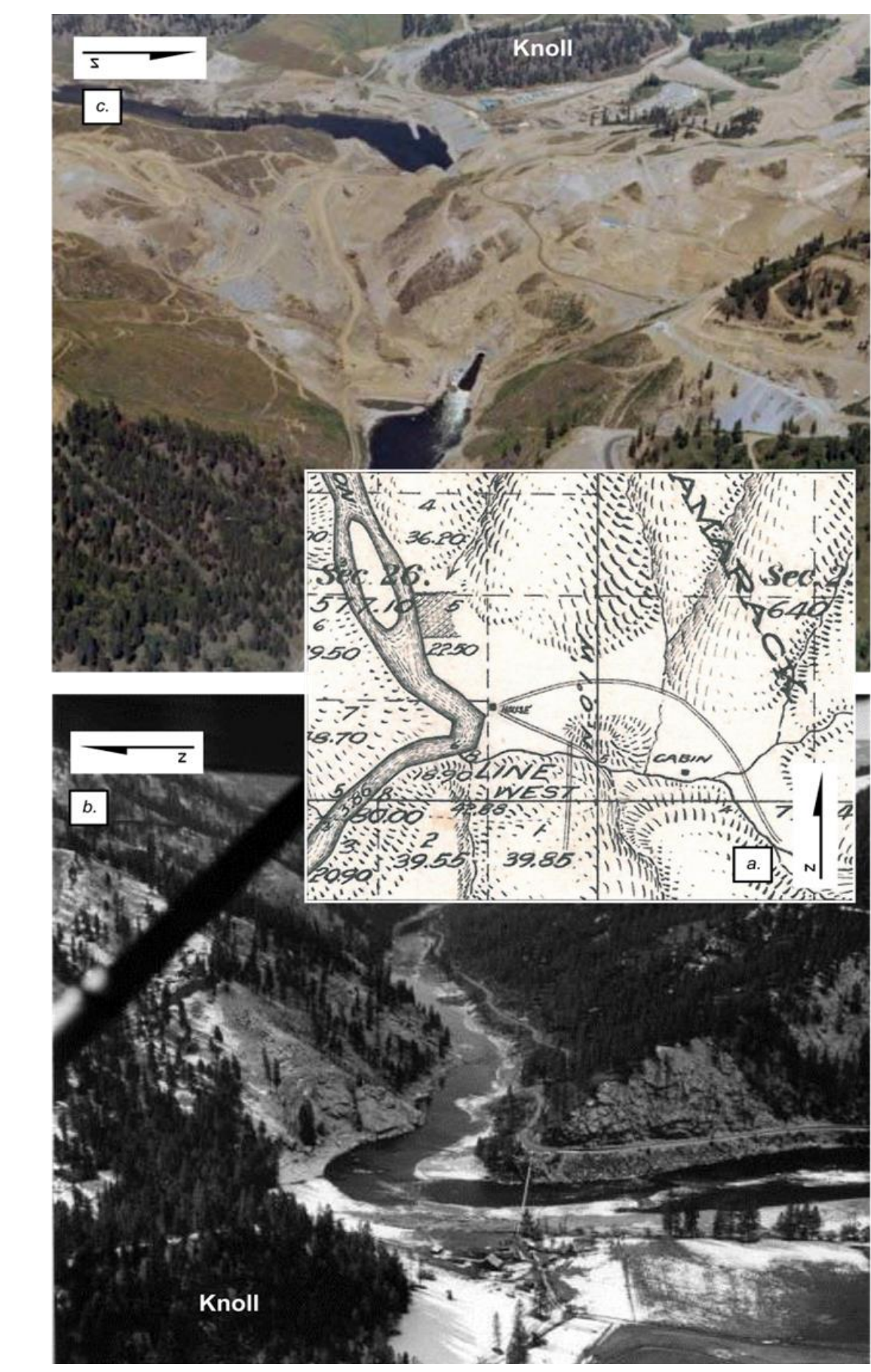
Issues

- Information pertaining to excavation locations was principally found in field notes, which were incomplete and sometimes contradictory.
- Much of the artifact provenience data was missing. Importantly, all provenience data for projectile points had been lost.

Physical Reconstruction of Site Vicinity

The site lacked a comprehensive, high quality and detailed map depicting the configuration of the various landscape elements and where excavations had occurred.

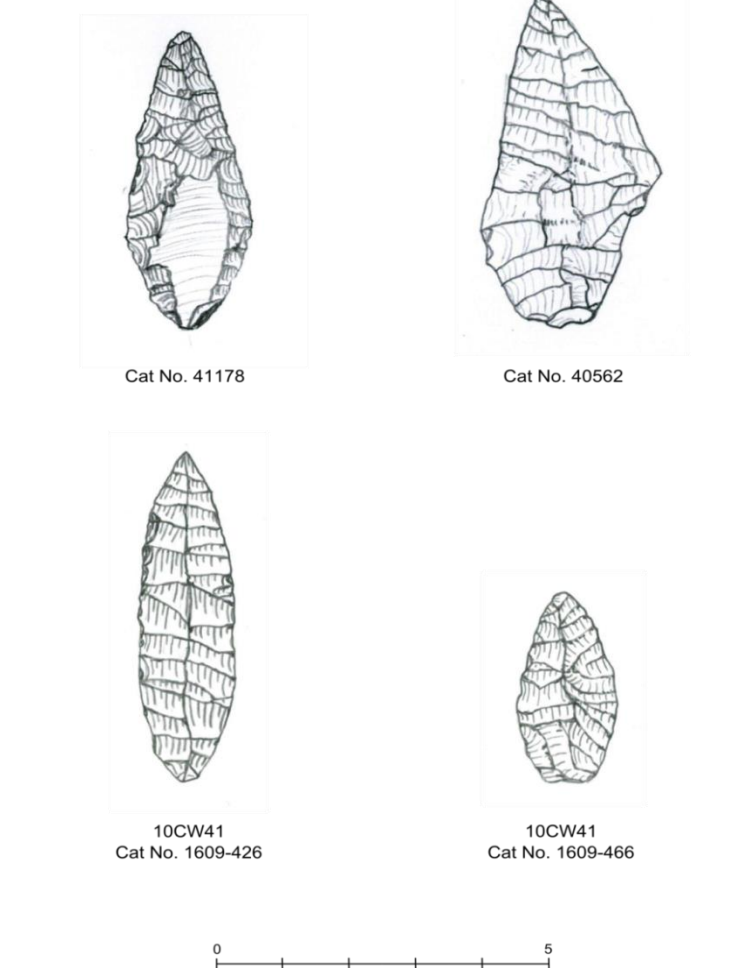
- WillametteCRA staff compiled data from original field notes and schematics, 1950s and 1960s aerial photography, and GLOs and other historic-period maps.
- A composite map of Bruce's Eddy depicting landforms and manmade features prior to inundation was created.
- Locations of archaeological excavations were overlain onto the composite map, providing details of the excavation vicinity that were not previously known.



Site Age and Occupations

Projectile point provenience information was missing. The points couldn't be linked to depth below surface to date occupation and use. A journal article (Lynch et al. 1965) provided point counts by level, but the point styles were idiosyncratic and not easily linked to contemporary styles. Lynch et al.'s point styles were illustrated, however.

- We identified 25 of Lynch et al.'s 31 illustrated points in the collection, and typed the points using contemporary typologies (i.e., Lohse 1985; Lohse and Schou 2008; Pettigrew et al. 1995). The result was a correlation table matching Lynch et al.'s styles with contemporary types.
- This allowed us to graph the frequency of points by depth below surface.



Correlation between Lynch et al. Types, Contemporary Types, and Excavation Depth.

Type (Lynch et al. 1965, Chart 1)	Mean Neck Width	Lohse and Schou Series	Years BP	Excavation Level (cmbs)											Total Count	Total Percent	All points in the Collection that could be Typed	
																	Count	Percent
				0-20	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160						
Convex Base Triangular	na	QWL	8000 to 4000		4	4	1	1						10		7	5	
Plateau Pentagonal	na	Cas				2								2	13			
Cascade	na	Cas					1							1				
Straight Stem, Barbed Shoulder	13.59	QBCN	CNT			1				1				2				
Expanding Stem Straight Shoulder	13.26	QBCN	CNT	5000 to 2000	1	2	1	1	2		1			7				
Side Indented	12.62	QBCN	CNT								1			1	17	22	17	
Expanding Stem, Barbed Shoulder	11.65	QBCN	CNT		1			1						3				
Straight Stem, Straight Shoulder	9.7	CCN	CNT		1	1		1						3				
Mc Columbia Bas Hetch (Hemitt Variety)	5.99	CS	BNT		1	1	3	5	1	1	1			12				
Middle Columbia Basal Notched	5.02	CS	BNT	2500 to 1500	4	2	5	8	2	1	1			23				
Wallula Rect Stemmed (H/V Variety)	4.95	CS	BNT	1500	1	2								6	55	68	60	
Wallula Rectangular Stemmed	2	CS	BNT		5	5	5	1						16				
Desert Side-Notched, General Subtype	6.49	PSN	SNT-L	1500 to 1000		1	3	2						6	15	18	16	
Desert Side Notched, Reading Subtype	6.49	PSN	SNT-L	1500 to 1000	1	4	1	2	2					10				
					28	0	1	4	1	2	2			34	100	115	100	
					Total Count	10	23	24	29	11	4	1	2	104				
					Total Percent	10	22	23	28	11	4	1	2	100				

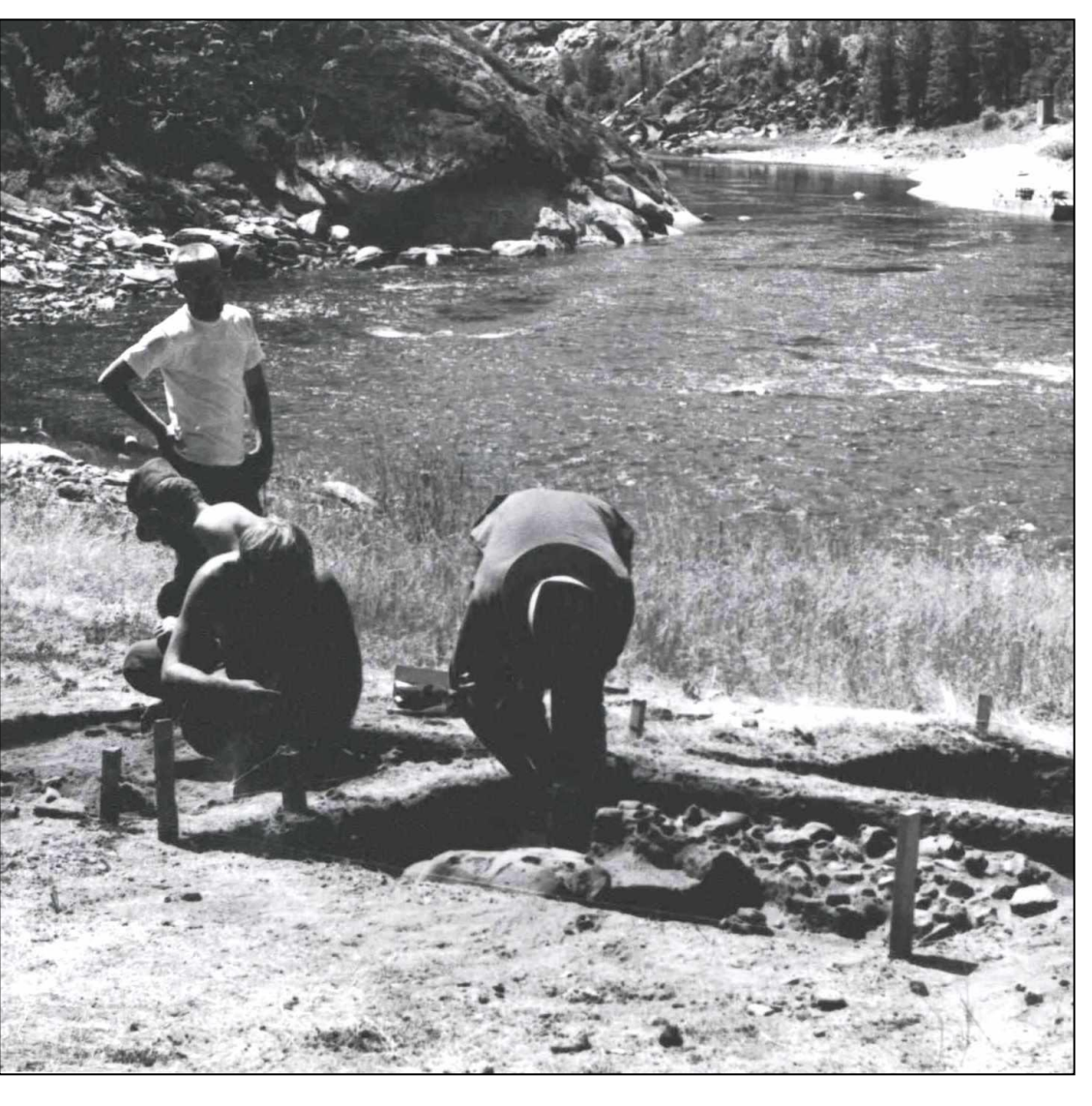
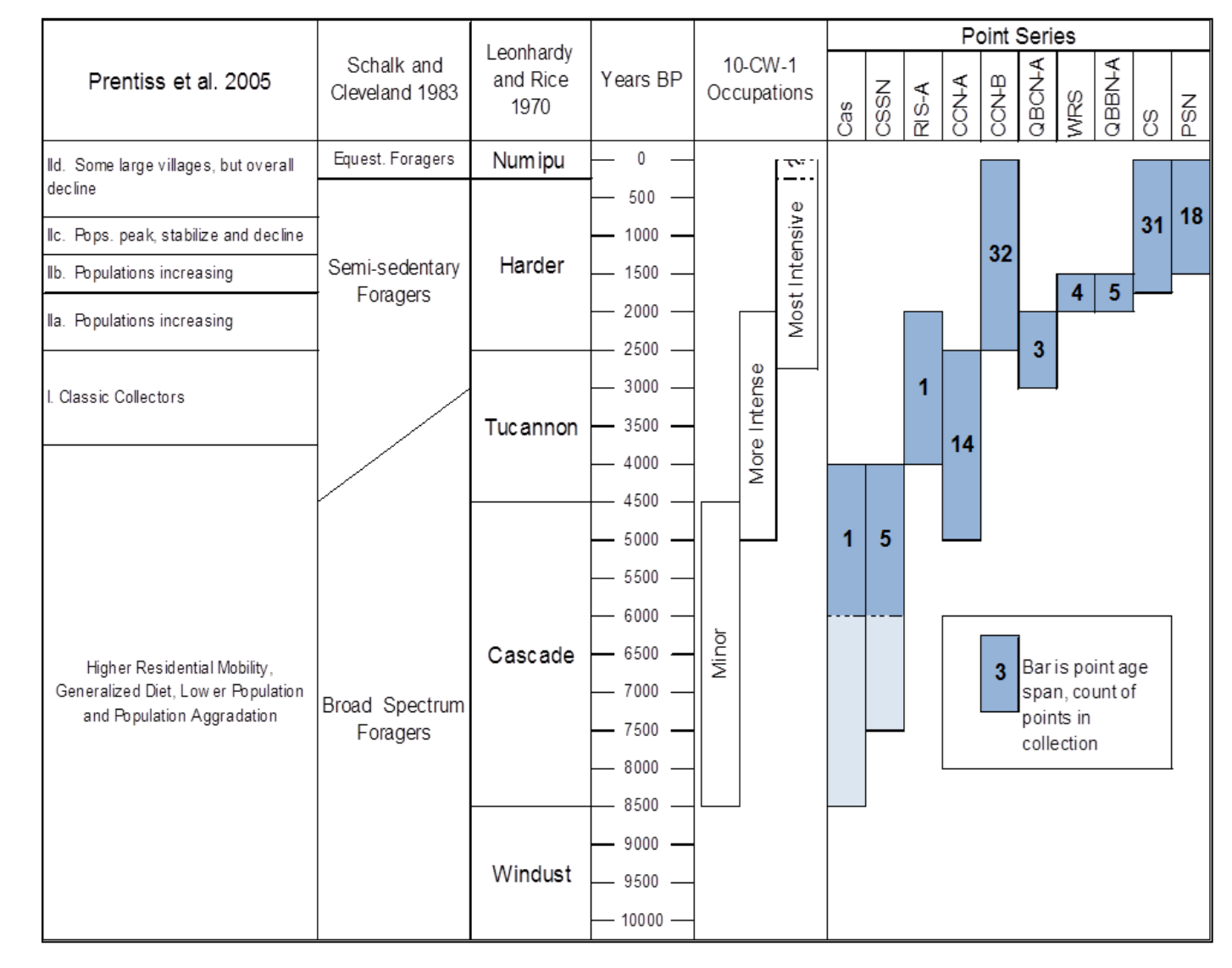
See the next table for Lohse Type and Series definition.

Ages of Projectile Points Recovered from 10-CW-1.

Series	Type	Max	Min	Count		
Lanceolate	Ian-C	Cas	8,500	4,000	2	
Shouldered Lanceolate	Ian-W	Windust	12,000	8,500		
	Ian-M	Mahkin Stemmed	Mst	6,000	2,500	
Side-notched Triangular	SNT-E	Cold Springs Side-notched	CSSN	7,600	4,000	5
	SNT-L	Plateau Side-notched	PSN	1,500	200	18
Corner-removed Triangular	CRT	Nespelem Bar	NB	5,000	3,000	
	CRT	Rabbit Island Stemmed A	RIS-A	4,000	2,000	1
	CRT	Rabbit Island Stemmed B	RIS-B	3,000	1,500	
Corner-notched Triangular	CNT-E	Columbia Corner-notched A	CCN-A	5,000	2,500	14
	CNT-L	Columbia Corner-notched B	CCN-B	2,500	200	32
	CNT	Quilomene Bar Corner-notched A	QBCN-A	3,000	2,000	3
	CNT	Quilomene Bar Corner-notched B	QBCN-B	3,000	2,000	
	CNT	Wallula Rectangular Stemmed	WRS	2,000	1,500	4
Basal-notched Triangular	BNT	Quilomene Bar Basal-notched A	QBBN-A	2,000	1,500	5
	BNT	Quilomene Bar Basal-notched B	QBBN-B	2,500	1,500	
	BNT	Columbia Stemmed A	CS-A	2,000	200	31
	BNT	Columbia Stemmed B	CS-B	2,000	200	
	BNT	Columbia Stemmed C	CS-C	2,000	200	
		Total			115	
		Unknown			36	
		Grand Total			151	

Results and Discussion

- Cartographic research and review of notes and schema from previous investigations pinpointed the location of 1960s excavation units and linked those units to their position on the landform and their relation to important landscape features.
- Researchers were able to correlate temporally diagnostic projectile points with excavation levels, providing specifics on site age, use and post depositional impacts.
- Nearly 90 percent of the projectile points seem to postdate ca. 5000 years ago, with over 75 percent postdating 2,500 years ago.
- Based on projectile points, most site occupations probably occur between about 20 and 80 cmbs, with deeper artifacts the result of post-depositional bioturbation.
- No robust structures were encountered during excavations. It is unlikely that larger, subsurface structures were present at the site and ephemeral structures such as mat lodges or ramadas, if present, may have been obscured by the mixed deposits.
- While no intact cooking or processing features were noted, the field crew did record charcoal lenses and scatters of FCR. Site reoccupation, trampling and mixing may have left such features jumbled, with little recognizable form.



Discussion

- Some general impressions on age and site function at 10CW1 are possible:
- Analysis of projectile points along with other artifact classes suggests very limited use prior to 5,000 years ago, (relatively) moderate use between 5,000 and 2,500 years ago, with (relatively) heavier use after 2,500 BP and probably after 2,000 years ago.
- The data suggest the most intense use of the site, at least based on the relative amounts of precontact and contact-era materials, probably occurred after 2,000 years ago, but diminished at some point prior to contact.
- Overall, 10CW1 appears to be a field camp associated with a relatively narrow range of resource procurement and processing tasks.
- Based on the site's location and fairly detailed ethnographic descriptions (e.g., Osmundson and Hulse 1961), 10CW1 was likely a fish procurement and processing locale, however, no artifacts clearly related to fishing were found.

Acknowledgements

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References

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