The 1837 Fort Jackson Trading Camp Inventory: A Typical Outfit for the Plains Indian Trade and What it Tells Us About the Plains Indian Consumer ©Michael Schaubs 2015

On December 2, 1837 a trading party under James C. Robertson left Fort Jackson to trade on the Arkansas River. It's likely that the purpose of the party was to trade with Cheyenne or Arapahoe Indians in the vicinity of Big Timbers (located in the present day Lamar, Colorado area), this being a favored wintering location for these Indians. A further purpose of the trading party may have been to tweak the Bent, St. Vrain & Co (BSVC), whose primary trading center, Bent's Fort was located approximately 60 miles upriver. While many details of the trading party have been lost, the inventory of trade goods with wholesale costs has been preserved. The items listed on the Fort Jackson inventory (FJI) have been grouped into functional categories and for this study have been compared to the Fort Hall Ledgers (FHL), August 1834-December 1835, the Fontenelle, Drips and UMO inventory of 1833 (FDU) and the Montreal Merchant Records 1715-1760 (MMR).

I. Historical Setting of Fort Jackson

The location of Fort Jackson is today uncertain, but is believed to have been several miles to the south of present day Platteville, Colorado, on the east bank of the South Platte River². The valley of the South Platte River running along the front range of the Rocky Mountains was in many ways an ideal location for a trading post. This area, located approximately midway between Fort William (starting to be known as Fort Laramie in 1838) to the north and Bent's Fort (also known as Fort William) to the south, had an abundance of food resources including buffalo and wild berries that drew large populations of Indians to the area. In their own tongue, the Cheyenne people referred to the South Platte as the "Tallow River." Shallow deposits of coal cropped out in the area, which could be mined from the surface providing fuel for blacksmithing and heating. Low cost labor skilled in adobe construction was available from Mexican Taos and Santa Fe⁵ and a generally mild climate were additional positive characteristics of the area. Figure 1 shows the locations of natural and cultural features as they existed in 1837.

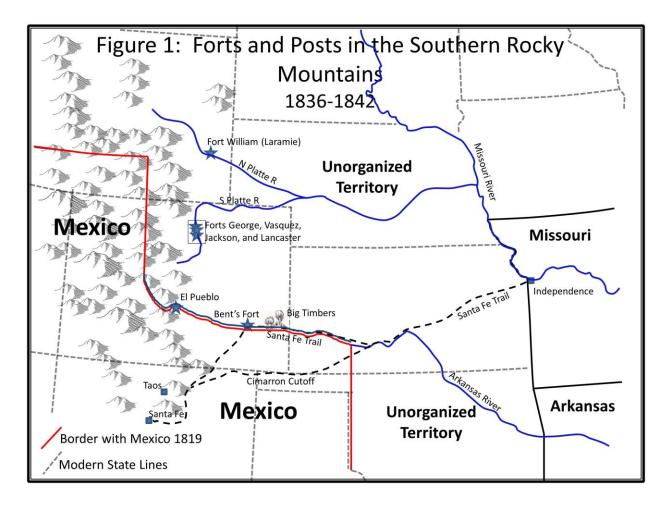
¹ Guy L. Peterson, Four Forts of the South Platte (n.p., Council on America's Military Past, 1982), 55.

² Leroy H. Hafen, *Fort Jackson and the Early Fur Trade on the South Platte* in *Colorado Magazine*, V, No. 1 (Feb. 1928), 10. Andy Creekmore and Cody Newton, (University of Northern Colorado & University of Colorado-Boulder) *Finding Fort Jackson: results of recent investigations of the history and remains of Fort Jackson, Colorado,* poster presented at the 69th Plains Anthropological Conference, October 26-29, 2011, Tucson AZ.

³ Peter J. Powell, *People of the Sacred Mountain: A history of the Northern Cheyenne Chiefs and Warrior Societies*, 1830-1879, Vol. 2, (New York, Harper and Row, 1981) 728; Peterson, 52.

⁴ Peterson, 7. Coal has been recovered in archeological studies at both Fort George (Fort St. Vrain) and Fort Vasquez.

⁵ Rufus Sage, Rocky Mountain Life, or Startling Scenes and Perilous Adventures in the Far West (Edward Canby publisher, Dayton Ohio, no publication date given), 212. According to Sage the Mexicans are paid \$4-\$10 per month and paid in articles of the trade marked up by an exorbitant amount.



The first trading post constructed in the area was Fort Vasquez in 1835. Operated by Louis Vasquez and Andrew Sublette, these partners received financial backing from longtime fur trade entrepreneurs William Sublette and Robert Campbell. William Sublette and Campbell may have provided backing because they believed that there were still openings for a small company to thrive in the fur trade. However, William Sublette and Campbell had a history of annoying the American Fur Company (AFC) and it's successor company Pierre Choteau Jr. Co. (PCJC), and this may have been simply another opportunity to irritate their long standing rival as well as BSVC. Both the BSVC and the PCJC swiftly responded to the commercial challenge of Fort Vasquez by constructing Fort George (aka Fort Lookout or Fort St. Vrain) and Fort Jackson respectively. Operations at Fort Jackson were managed by Peter Sarpy and Henry Fraeb, both highly capable men with long experience in the fur trade. At about this same time, Lancaster Lupton, a former Army Lieutenant who had traveled through region with Colonel Henry Dodge in 1835, also chose this area as a location for his Fort Lancaster (later known as Fort Lupton) after his Army career ended in March 1836⁶. By 1837 there were a total of four trading posts established along a 15 mile reach of the South Platte River.⁷

⁶ Paul Chrisler Phillips, *The Fur Trade* (Norman, Oklahoma, University of Oklahoma Press, 1961) 539-543.

⁷ Ibid., 428; The Western Department of the American Fur Company was sold in early 1834 to Pratte, Choteau and Company following the retirement of John Jacob Astor. However, even after the change in ownership the successor company continued to be generally known as the American Fur Company.

II. The Fort Jackson Trading Camp

Outfitting trading parties to travel directly to Indian hunting camps and villages was a common practice of established trading posts. Based on records of the Office of Indian Affairs, Janet LeCompte determined that there were as many as 54 traders working for the BSVC in 1842 and lesser though significant numbers at other times⁸. At any given time the majority of these traders would have been out on the prairies at Indian camps and villages. Mobile trading parties extended the influence of the forts, and reduced opportunities for opposition companies to obtain the trade. Depending on location and terrain, the trading parties might travel via boat, pack animals, or wagons. Under the hyper-competitive trading conditions that must have existed along the South Platte, outfitting mobile trading parties must have been essential for commercial survival.

The size of a mobile trading party depended in part on how far the party was to travel and with whom they were expecting to trade. A large, well-armed party was used for trade on extended expeditions or with unpredictable Indians. Richiens Lacy Wootton led an extended expedition of 14 men in the early months of 1837, while in the employ of BSVC, to trade with Sioux encampments and villages located in parts of what are now Colorado, Wyoming and Nebraska. On the other hand, a single experienced man accompanied by a couple of helpers was all that was necessary for a trip amongst friendly Indians. During the winter of 1846-47 "Blackfoot" John Smith, an experienced trader with the BSVC made a number of short trading expeditions to Cheyenne Indians in the vicinity of the Big Timbers located about sixty miles in the downriver direction from Bent's Fort. On several of these expeditions, Smith took one wagon and was accompanied by Lewis Gerrard, an inexperienced seventeen year old youth, another helper by the name of Pierre, Smith's Indian wife and two children. Only a small party was required for trade with the Cheyenne, because the Cheyenne considered BSVC traders to be family, which in a sense they were. William Bent was married to Owl Woman, a daughter of a Cheyenne leader. 10

How long James Robertson was out trading with the Indians is not known. Alexander Barclay led two trading parties to the Ute Indians starting from the vicinity of Pueblo or Hardscrabble in the fall of 1844. Including travel time, Barclay was out a total of 16 days for the first expedition in September and 18 days for the second expedition in October. ¹¹ Charles Larpenteur, on the upper Missouri River, led a trading camp which set out the end of January and was out for six weeks. ¹² A similarly equipped trading camp described by Lewis Gerrard traded at the Big Timbers location for about four weeks in 1846. ¹³

⁸ Janet LeCompte, Pueblo, Hardscrabble, Greenhorn: The Upper Arkansas, 1832-56 (Norman, Oklahoma, University of Oklahoma Press, 1978), 23 (However, on page 138 LeCompte states there were 44 traders in 1842).

⁹ Richiens Wootton, as told to Howard Louis Conrad, *Uncle Dick Wootton: The Pioneer Frontiersman of the Rocky Mountains* (Santa Barbara, California, The Narrative Press, 2001 printing), 26-29.

¹⁰ Lewis H. Garrard, Wah-To-Yah and the Taos Trail, Oklahoma City, Harlow Publishing Co., 1927), 44-47.

¹¹ George P. Hammond, *The Adventures of Alexander Barclay: Mountain Man*, (Denver, Colorado, Old West Publishing Company, 1976) 72-73.

¹² Charles Larpenteur, edited by Elliot Cous, *My Forty Years a Fur Trader on the Upper Missouri* (New York, Francis P. Harper, 1898), 185-192.

¹³ Gerrard, 44-80.

Robertson's party likely used a wagon for transporting goods. Use of a wagon was a practical means of transportation on the prairies and minimized the twice daily necessity of loading/unloading pack animals. Also, because handling was minimized, losses due to damage or theft were reduced as well. A wagon is known to have been available at Fort Jackson from the liquidation inventory of October 6, 1838. The Fort Jackson stock of trade goods was sold to BSVC by the AFC after the two companies came to a non-compete agreement earlier in 1838. This liquidation inventory was also published by Peterson and will occasionally be referred to in the following text. ¹⁴ Subsequent to the sale, Fort Jackson was completely destroyed by PCJC personnel.

III. The Fort Jackson Inventory

The Pierre Choteau business records preserve the detailed inventory of goods taken along on the outfit of James C. Robertson on December 2, 1837. Because Robertson was intending to compete directly with similar trading outfits sent out by Bent's Fort, it is probable that the goods he carried were comparable in type and quality to those carried by the BSVC parties or available at Bent's Fort.

Although not stated on the FJI, the prices listed are the company's wholesale or purchase costs, not retail prices. The total inventory had a wholesale value of \$935.51 which today would not appear to represent a significant trading outfit. However, adjusting for inflation from 1837 to 2010, the value of the inventory in present-day dollars is a more respectable \$17,840.95.¹⁵ If these goods are compared to the price of gold, which in 1837 was just under \$20 per ounce¹⁶, the current value of the inventory would be more nearly \$60,000 in gold equivalents. This inventory represents the goods that the trader anticipated selling, not what was actually traded.

IV. Comparison Data Sets

The FJI by itself is does not represent a statistically valid data set. The distribution of goods in this data set could easily have been influenced by special orders, trader preference, or simply the availability of goods at Fort Hall at the time the trading outfit was assembled. This data set is compared to data contained in the Fort Hall Ledgers, the Fontenelle, Drips & UMO 1833 inventory, and a study of French trade goods in the Great Lakes Region by Dean L Anderson.¹⁷

Dean L. Anderson used inventories from a total of 70 outfits sent out to supply posts at Detroit, Michillimackinac, Green Bay, Oulatenon, Sioux Post, Rainy Lake, Nipigon and Michipicoten between the years 1715-1760 for his Great Lakes Region study. The records of the 70 outfits Anderson termed the Montreal Merchant Records (MMR). Anderson's results are considered to be statistically valid because of the comprehensive size of his data set. Although this data set is statistically valid it is not directly comparable to the FJI: the goods are sourced from or through

¹⁴ Peterson, 56-62.

¹⁵ "The Inflation Calculator," http://www.westegg.com/inflation.cgi [accessed February 28, 2012].

¹⁶ "Historical Gold Prices 1833-Present," http://www.nma.org/pdf/gold/his_gold_prices.pdf [accessed April 14, 2015]

¹⁷ Dean L. Anderson, The Flow of European Trade Goods into the Western Great Lakes Region, 1715-1760, in *The Fur Trade Revisited, Sixth North American Fur Trade Conference*, Mackinac Island, Michigan, 1991, 93-115.

France; the geographic area of the trade had a greatly different climate and food sources, and the Indian customers a different culture and way of life. In his study, Anderson divided the trade goods into thirteen functional categories: Adornment; Amusement; Alcohol Use; Clothing; Cooking & Foods; Digging & Cultivation; Fishing; Grooming; Hunting; Maintenance; Tobacco Use; Weapons; and Woodworking. Although Anderson did not provide the lists of the goods that he used in this study, he did provided a list of the types of goods that fall into each category. Line items on the FJI, FDU and the FHL have been placed in functional categories based on Anderson's example. It must be understood, though, that Indian consumers may well have found unique uses for these goods which are not obvious and don't necessarily correspond to the categories to which they've been assigned. An example of one such unique use would be gun screws as hair ornamentation used by a Blackfoot warrior.¹⁸ Other metal items that occasionally saw use for decorative purposes include awls, knives, forks, nails, buckles, bottle labels, keys, fishhooks, saucepan handles, pocket watch parts, and instrument wheels. Six serpent side-plates from NW Trade Guns were once fashioned into a warrior's breastplate.¹⁹ Table 1 below shows the functional categories of the FJI arranged in descending order of percent value:

Table 1: Functional Category Values of the Fort Jackson Inventory

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Category	Wholesale \$ Amount	Percent of Total
Clothing, Fabric & Sewing	\$ 541.42	57.9%
Adornment	\$ 118.61	12.7%
Cooking & Foods	\$ 98.96	10.6%
Hunting	\$ 92.98	9.9%
Woodworking	\$ 25.60	2.7%
Alcohol	\$ 16.50	1.8%
Weapons	\$ 11.87	1.3%
Grooming	\$ 10.12	1.1%
Tobacco and Tobacco Use	\$ 9.90	1.1%
Cultivation	\$ 5.44	0.6%
Maintenance	\$ 2.77	0.3%
Amusements	\$ 1.35	0.1%
Fishing	NA	NA

Fort Hall was constructed by Nathaniel Wyeth for his Columbia River Fishing & Trading Co. The Fort Hall Ledgers run from August 4th, 1834 to December 31st, 1835, a period of nearly 17 months. The ledgers track the account balances of company employees, mainly trappers and hunters. Occasionally, there appear records for free trappers or trappers employed by other companies in the ledgers, but these transactions were always in barter, and a balance for these individuals was generally not carried on the books. The company trappers were ethnically/culturally Euro-Americans, French Canadians, Mexicans, Kanakas (Hawaiian) and company employed Indians. Sales to wild Indians were tracked separately and were not available for this analysis. Retail prices to Indians on some goods could be marked up as much as 200% higher than prices charged to company employees. Because the company employees returned

¹⁸ Frances Fuller Victor, *The River of the West: Life and Adventure in the Rocky Mountains and Oregon, Volume I* edited by Winfred Blevins (Missoula, Montana, Mountain Press Publishing Co. 1983), 230.

¹⁹ Karlis Karklins, *Trade Ornament Usage Among the Native Peoples of Canada: A Source Book* (Ottawa, published by the Minister of the Environment, 1992), 110, 228.

periodically to the fort, they were able to make numerous, small purchases. The ledgers list the prices at which goods are sold to the men, therefore are retail prices, however, wholesale prices can be found for many items and can be estimated for others. Nearly 7,500 line items, worth an estimated wholesale value of approximately \$2,700 are recorded in the ledgers. This data set represents goods that were actually sold²⁰.

The Fontenelle, Drips and UMO inventory²¹ represents goods taken to supply PCJC trappers, free trappers and Indians at the 1833 Green River rendezvous. Some portion of the goods were shipped by steamboat from Bellevue to Fort Pierre with final assembly of the inventory at Fort Pierre. On June 8th, 1833 Fontenelle lead a pack-train of about 60 men and 185 horses to that year's rendezvous. At that rendezvous there were 250-300 trappers and a large contingent of Indians, mostly Shoshone²². However, Fontenelle and Drips did not have this trade to themselves. The Rocky Mountain Fur Company and Benjamin Bonneville's outfit were also at the rendezvous competing for the trade. Not surprisingly, a number of men that are listed on Fontenelle & Drips accounts are also listed at Fort Jackson four years later. The FDU inventory includes 207 line items with a wholesale value of approximately \$6,200 (\$372,000 in present day gold equivalents). The inventory represents goods that were anticipated to be sold, not what was actually traded.

Table-2 below compares and contrasts the settings of the data sets.

Table-2 Comparison of the Data Sets				
	Fort Jackson	MMR Fontenelle, Drips Fort Hall		
			& UMO	
Date(s)	1837	1715-1760	1833	1834-1835
Value of Goods	~\$950	NA	~\$6,200	~\$2,700
Source of Goods	US/Global	France/?	US/Global	US/Global
Geographic	Southern Plains	Great Lakes	Northern Rockies	Northern Rockies
Location		Region		
Climate	Semi-arid Steppe	Humid	Semi-arid Steppe	Semi-arid Steppe
		Continental	& Alpine	& Alpine
Customer	Plains Indians	Woodland	Company	Company
		Indians	Trappers & Plains	Trappers
			Indians	
Customer	Nomadic	Semi-Nomadic	Nomadic	Nomadic
Lifestyle				
Time Interval of	Weeks	45 Years	Weeks	17 Months
Sales				
Demand Type	Anticipated	Actual	Anticipated	Actual
Statistically	No	Yes	No	No
Representative				

²⁰ Columbia River Fishing & Trading Company Records, microfilmed from the collections of the Oregon Historical Society, MSS 938-1 B.

²¹ Fontenelle, Drips and UMO 1833 inventory, Pratt, Choteau & Co., Vol 1 EE, Choteau-Maffitt Collection of the Missouri Historical Society, St. Louis.

²² Fred R. Gowans, *Rocky Mountain Rendezvous* (Provo, Utah, Brigham Young University Press, 1975) 102-122.

Figure-2 compares the ranking of the functional categories between the FJI and the other data sets. Functional categories shown in decreasing order of the MMR categories because this is the statistically representative data set.

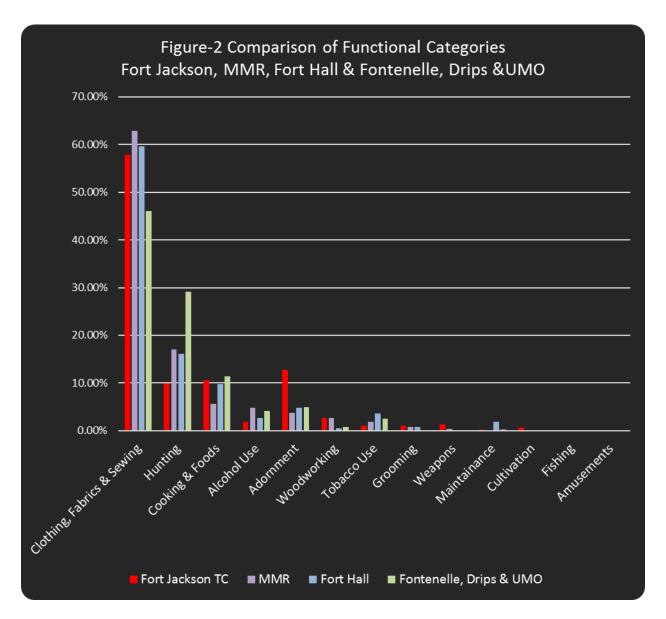


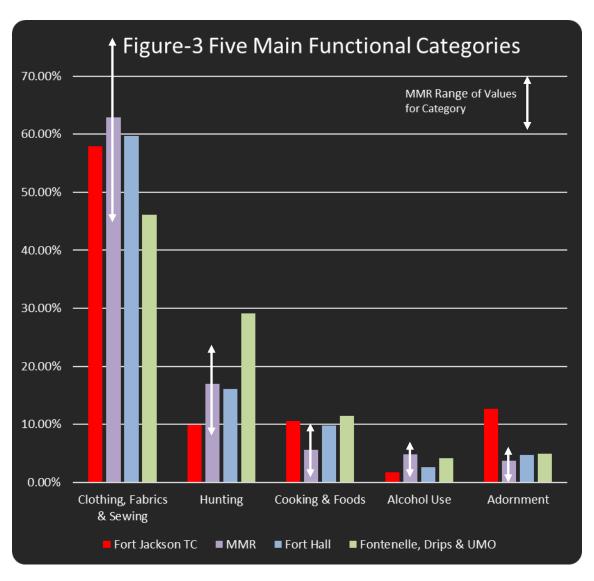
Figure-2 shows that rank and percent of total inventory value of the different functional categories are remarkably similar between the FJI and the other data sets. The most significant difference between the FJI and the other data sets are the categories represented by Hunting and by Adornment.

The similarity of the ranking and value of functional categories shown on Figure 2 suggests that the FJI is probably not significantly skewed by one-time factors and likely is representative of

the types and distribution of goods taken by trading camps to the plains Indians. Because the Fort Jackson trading party would have been competing directly with other trading parties (sent out by the BSVC, as well as other independent traders) the distribution of types of goods is likely representative of these trading parties as well. The over-all comparability of the functional categories between the data sets also suggests that aside from specific preferences, the basic needs, wants and desires of the plains and northern woodland Indians as well as the company trapper/hunters were the similar. However, examining subcategories within the functional groups and specific items traded at different locations, during different periods offers a more complicated glimpse of this significant exchange.

V. Five Main Functional Categories

The five highest ranked MMR functional categories, are Clothing, Fabric and Sewing; Hunting; Cooking and Foods; Alcohol Use; and Adornment. These functional categories constitute 92-96 percent of the inventory value of all data sets examined in this analysis. The remaining eight functional categories constitute between 4-8 percent of the inventory value of the data sets. Figure-3 shows the comparison of the main functional groups. This figure also shows the range in values for the different posts examined in the MMR data set.



Two of the top five categories, Clothing, Fabric & Sewing and Cooking & Foods, fall within the sphere of responsibility of the Plains Indian women. Adornment was important to both men and women and alcohol was used by both sexes. Only the Hunting category falls exclusively in the domain of male responsibility. This suggests that while Indian males may have been principally responsible for conducting the trade, women would have had a considerable contribution to many purchasing decisions. Indeed, in the 1860's Richard C. Mayne observed "The squaws as may be usual with their sex, having the most to say upon the matter, and being the harder to persuade, the man never concludes a bargain without consulting her; and I have frequently seen her put a veto upon some commercial arrangement²³."

Clothing, Fabric & Sewing: Figure-3 shows that this functional category compares well across all data sets and that it is the most important of the functional categories. The category includes blankets, ready-to-wear clothing, fabrics and sewing needs. By having access to ready-made clothing and textiles, a woman's workload dedicated to clothing production was significantly reduced, allowing her to reallocate her time to different tasks. Table-3 shows sub-categories within this functional category. Specific items and quantities are not available for the MMR and so this data set is not included on Table-3 and subsequent similar tables.

Table-3 Comparison of Clothing, Fabrics & Sewing Subcategories			
	Fort Jackson Fontenelle, Fort Hall		
		Drips & UMO	
Blankets	39.6%	38.4%	22.1%
Ready-to-Wear	30.8%	38.6%	49.6%
Fabrics	28.7%	21.3%	26.0%
Sewing Needs	0.9%	1.6%	2.3%

Table-3 shows relatively good comparison of the data sets across sub-categories, with the exception of Fort Hall for blankets and ready-to-wear clothing. The greater value of ready-to-wear clothing at Fort Hall may in part be explained by the purchasing behaviors of its consumers. The Fort Hall Ledgers represent a purchasing record spanning a 17 month interval and consists of numerous small purchases. Fort employees were able to return to the fort at relatively frequent intervals and, as a result, as clothing wore out or became unusable, employees were able to purchase ready-made clothing, without needing to depend on replacements of native manufacture. This also suggests that white hunter/trappers, when given a choice, did have somewhat of a preference for Anglo-American clothing fashions and materials. Table-4 is a list of items on the Fort Jackson Inventory which belong to the Clothing, Fabrics & Sewing Functional Category.

Table-4	Fort Jackson Clothing, Fabric	cs & Sewing
Quantity	Item Description	Wholesale Cost

²³ James A. Hanson, *Clothing & Textiles of the Fur Trade, Encyclopedia of Trade Goods V.4*, edited by Gail DeBuse Potter (Chadron, NE, Museum of the Fur Trade, 2014), 487.

4 pairs	3-point red blankets	\$11.01/pair
3 pairs	3-point green blankets	\$9.63/pair
3 pairs	3-point green blankets 3-point white blankets French	\$11.50/pair
•	•	<u> </u>
3 pairs	3-point blue blankets	\$6.90/pair
5 pairs	3-point white blankets English	\$7.59/pair
3 pairs	2 ½-point white blankets English	\$6.44/pair
4 pairs	2-point white blankets English	\$3.84/pair
5 pairs	1-point white blankets English	\$2.77½/pair
2	calico shirts	\$1.21
9	red flannel shirts	\$1.47%
9	domestic plaid & check shirts	\$0.77
3 pair	sattinett pantaloons avge	\$3.15
5	green blanket capotes	\$7.35
5	scarlet chief's coats	\$8.25
5	blue chief's coats	\$7.70
7	woolen caps	\$0.40
2	fur hats	\$1.92%
8	cotton shawls	\$0.96
4 pairs	woolen socks	\$0.32½/pair
6	leather belts	\$0.46
2 pieces	save list blue cloth 38 yards	\$1.54/yard
2 pieces	scarlet cloth 40 yards	\$1.55½/yard
2 pieces	red ground calico 59 yards	\$0.26½/yard
1 piece	cotton furniture check 46¼ yards	\$0.17/yard
1 piece	cotton stripe 43 yards	\$0.13¼/yard
1 piece	bleached domestic sheeting	\$0.14½/yard
1 pound	sewing thread	\$0.91
1½ gross	gilt coat buttons	\$2.10/gross
1 gross	Indian awls	\$1.49/gross

Blankets alone constitute nearly 40% of the value of this functional category and nearly one-quarter of the entire FJI inventory value. Blankets described on the inventory were available as pairs in red, green, blue and white. Blankets were shipped as pairs as a result of export duties levied by Britain on the basis of piece, rather than size or value-thus shipping pairs reduced the cost of duties by half. Most of the blankets on the FJI are 3-point blankets with lesser quantities of 2½, 2 and 1 point blankets. The wholesale costs of the 3-point blankets range from \$6.90 to as high as \$11.01 per pair. On the FHL blankets were being marked up 500-600 percent over cost. A majority of the FJI blankets are designated as being sourced from England or France. It's unlikely that those blankets without a designated source were produced in the United States, as there was only a single mill known to be producing blankets in this country by 1845²⁴. As indicated above, blankets were an extremely important item and the Indian consumer could be very particular about the style and color of blankets. In 1811 an observer noted that no Indian at that time would buy a blanket without a stripe at each end and points on the edge. Bad dye lots or off colors could ruin and entire trading season. Ewing Bros. trade in 1845 was seriously injured when they received a shipment of "bad" blankets from their supplier.

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²⁴ James A. Hanson, *Clothing & Textiles of the Fur Trade, Encyclopedia of Trade Goods V.4*, edited by Gail DeBuse Potter (Chadron, NE, Museum of the Fur Trade, 2014), 222.

²⁵ Ibid., 225.

²⁶ Ibid., 227.

Excluding blankets, this category is split almost evenly in value between ready-made clothing and fabrics. Ready-made clothing includes five capotes, twenty shirts, three pair of pantaloons, nine caps and hats, ten Chief's Coats, four pair of socks, one shawl and six leather belts. The most expensive clothing items are scarlet and blue Chief's Coats at \$8.25 and \$7.70 each, respectively and which may have had a retail price of \$35.00²⁷, a markup of about 450%. At least some of the Chief's Coats were probably intended to be distributed as gifts, both to honor tribal leaders and to designate the trader's soldiers. The AFC is known to have manufactured Chief's Coats at its more important posts with both on-site tailor shops and in St. Louis, where it contracted with local seamstresses to manufacture these as well as other clothing items.²⁸

Shirts were an item in use by women as well as men. Regardless, whether there was a greater consumer population with demand for shirts, or whether pantaloons and trousers were less fashionable, it is clear from the ratio of shirts/pantaloons that Robertson anticipated much greater demand for the former.

With 256 yards of various types and colors of fabrics, it is clear that the trader putting together this outfit knew Indian women to be proficient seamstresses who preferred the fit, fashion and value obtained by sewing clothing themselves. There is enough fabric on this inventory to sew approximately 85 shirts or 60 Indian strap-style dresses²⁹. Two of the fabrics are described as cloth, probably meaning broadcloth and which are quite expensive relative to the cotton fabrics. On the FHL, these same fabrics were sold retail for \$6.00 and \$7.50 per yard. Indians could be extraordinarily sophisticated consumers of textiles and fabrics. One fur trader informed his supplier "the said Indians are as much refined to judge a cloth as the most skillful merchant..."³⁰. Woolen fabrics were likely produced in British mills as were the cotton fabrics. Although by the 1830's the United States was well established in producing calicos and other cotton fabrics, Britain at this time was annually exporting some 134 million yards of cotton textiles.³¹

Other sewing items included on these inventory are one pound of linen thread and 1½ gross gilt buttons. It is probable that the buttons were for use as decorative items rather than as clothing fasteners.

An item conspicuously absent from the FJI, especially given the quantity of fabric, is needles. Needles were a very low cost item. Being a low cost item, needles and pins may have been intended as complementary items to be given out with the purchase of fabrics and as a result were not recorded on the inventory. The Bent's Fort ledgers for July 24, 1839 record a cost of

²⁷ Ibid., 55.

²⁸ Allen Chronister, Chief's Coats Supplied by the American Fur Company, Museum of the Fur Trade Quarterly, Vol. 32, No. 2 (Summer, 1996), 1-2.

²⁹ Tamara Fewell-Flowers, Littleton History Museum March, 7, 2015, personal communication.

³⁰ James A. Hanson, Clothing & Textiles of the Fur Trade, Encyclopedia of Trade Goods V.4, edited by Gail DeBuse Potter (Chadron, NE, Museum of the Fur Trade, 2014), 244.

³¹ Ibid., 382-383.

\$2.25 per thousand needles³². The liquidation inventory of October 6, 1838 confirms that needles were available at Fort Jackson³³.

Hunting: This functional category is entirely within the responsibility area of the men. Figure-3 shows this category on the FJI to be low relative to the other data sets. Table -5 compares subcategories between the datasets.

Table-5 Comparison of Sub-categories within Hunting			
	Fort Jackson Fontenelle, Drips Fort Hall		
		& UMO	
Guns & Rifles	64.5%	48.9%	42.6%
Gun Powder	17.7%	8.9%	5.1%
Lead & Balls	10.1%	3.6%	4.6%
Powder Horns &	6.2%	1.2%	8.4%
Flasks			
Miscellaneous	1.0%	1.0%	1.3%
Flints & Percussion	0.5%	0.3%	1.2%
Caps			
Traps	0.0%	35.7%	36.2%
Ammunition	0.0%	0.0%	0.6%

From this table all three data sets follow generally similar trends, though the FJI is considerably higher than the others for Guns & Rifles, Gun Powder, and Lead & Balls. However, more than a third of the category value for FDU and the FHL is in traps, which is completely absent on the FJI. The high value of Traps significantly depresses the value of the other subcategories relative to the FJI. Table-6 shows a much closer comparison of the relative values of sub-categories with the Trap sub-category removed. Without traps, the overall value of the Hunting functional category would be more nearly similar between the FJI, FDU and the FHL.

Table-6 Modified Comparison of Sub-categories within Hunting			
	Fort Jackson Fontenelle, Fort Hal		
		Drips & UMO	
Guns & Rifles	64.5%	76.2%	66.7%
Gun Powder	17.7%	13.8%	8.0%
Lead & Balls	10.1%	5.5%	7.2%
Powder Horns & Flasks	6.2%	2.2%	13.1%
Miscellaneous	1.0% 2.2% 2.0%		
Flints & Percussion Caps	lints & Percussion Caps 0.5% 0.4% 1.9%		
Ammunition	0.0%	0.0%	1.0%

The absence of traps on the FJI is due in part to the lack of favorable habitat for beaver in the southwestern prairies; the preferred currency of exchange there being the buffalo robe, and cultural preferences of the plains Indians. Charles Mackenzie, on the Upper Missouri in 1805,

³² Ledger DD, April 16, 1839-July 1840, Pierre Chouteau Collection, Missouri Historical Society, St Louis, pp 76-89.

³³ Peterson, 56-62.

stated regarding Plains Indians, "beavers are plentiful, but the Indians will not take the trouble of attending to them. They often remarked to me that they would think it a pleasure to supply us with beavers if they could be secured by a chase on horseback, but they considered the operation of searching for them in the bowels of the earth, to satisfy the avarice of the Whites, not only troublesome, but very degrading."³⁴

Table-7 Fort Jackson Hunting		
Quantity	Item Description	Wholesale Cost
6	long fusils	\$5.10
6	short fusils	\$4.95
50 pounds	gunpowder \$0.33/pound	
100 pounds	lead balls	\$0.08/pound
20 pounds	lead	\$0.07/pound
7 powder horns \$0.82/ea		\$0.82/ea
	flints & gun worms	\$1.00

Table-7 shows items belonging to this category in the FJI to be composed entirely of guns and shooting supplies. There is only one item on the FJI which is not shooting related that might possibly be placed in this category, 3 pounds of iron wire. Anderson places wire in the Hunting category on the MMR because it was used for constructing snares for small game. However, because traps are not included on the FJI I have concluded that small game was generally not of interest to these Indian consumers and that iron wire was more likely used for binding or fastening materials and so I have placed it in the Maintenance functional category.

There are a number of different types of smoothbore guns referred to as fusils, however, those referred to on the FJI are most likely NW Trade Guns. Not enough information is provided with the inventory to speculate about long vs. short fusils. Most of the NW Trade Guns illustrated in *Firearms of the Fur Trade* for this general time period range in barrel length from 35 inches up to 42 inches with a range of calibers between .57 to .68 with most being .60 or .62³⁵. The manufacturing source of these guns is most likely Britain or possibly Belgium. Although there were American sources for NW Trade guns, domestic production in the 1830's was minute compared to foreign sources, which were then manufacturing a superior product at lower cost.³⁶

By 1830 the United States had a well-established lead mining and smelting industry in the region running from southwest Wisconsin down through southern Missouri and it is almost certain that the lead on the inventory was obtained from these domestic sources³⁷. The FJI does not indicate whether the 100 pounds of trade balls are of a single size, or are of multiple sizes, but were probably dominated by sizes appropriate for the trade guns. The powder/lead ratio by weight of the FJI is 1:2.4. This is almost identical to the powder/lead ratio of 1:2.5 in use by native hunters

³⁴ James A. Hanson, *When Skins were Money: A History of the Fur Trade*, (Chadron, Nebraska, Museum of the Fur Trade, 2005), 153.

³⁵ James A. Hanson with Dick Harmon, *Firearms of the Fur Trade, Encyclopedia of Trade Goods, Volume 1*, (Chadron, Nebraska, Museum of the Fur Trade, 2011), 324-347.

³⁶ William H. Nevius, The First American Northwest Trade Gun, Part II, Henry Deringer & The Office of Indian Trade 1815-1818, *Museum of the Fur Trade Quarterly*, Volume 32, No. 1, (Spring 1998), 5-14.

³⁷ Charles E. Hanson, Jr., Lead in the Fur Trade, *Museum of the Fur Trade Quarterly*, Volume 14, No. 3 (Fall, 1978), 8.

in 1760 as determined by Sir William Johnston³⁸, though the ratio on the FDU and FHL is in both cases exactly 1:2. The FJI doesn't list a source for gun powder, however, the Fort Jackson liquidation inventory lists Duponts, a domestic manufacturer.

Flints and gun worms are a single line item listed at \$1.00. Initially its perplexing as why to such different items should be listed together with no quantities given. Per piece these were very inexpensive items. The FDU inventory shows wholesale costs of approximately three-tenths cent per gunflint and five-tenths cent per gun worm. One possible interpretation for this unusual line item is that the trader or clerk assembling the outfit simply grabbed a handful of flints and a handful of worms and estimated the value without taking time or effort to tally individual units. The flints were most likely of English manufacture as by the 1800's most gunflints available in North America were from this source and being of dark grey or black flint and having a regular prismatic shape³⁹.

Retail markups for items in this category could be substantial. On the FHL, gunpowder was marked up 2000% to \$2.50/pound; lead was marked up 3000% to \$1.25/pound; flints, depending on size, were marked up between 1200%-3300% to \$1.00/dozen.

Given that there were 20 pounds of bulk lead on the inventory it is surprising that ball moulds are not included as well. It's possible that ball moulds were accessories included with the new fusils. Some of the trade rifles manufactured by both J.J. Henry and Deringer are known to have included a "ball mould and woolen bag or cover for each gun."⁴⁰

Cooking & Foods: This functional category in general falls within the responsibility area of women, although knives, which are included in this category, would have been of interest to men as well. The category ranks third overall, and there is very good agreement between the data sets (Figure-3). The category includes cooking and butchering equipment, as well as food items.

Table-8 Comparison of Sub-categories within Cooking & Foods				
	Fort Jackson Fontenelle, Fort Hall			
Drips & UMO				
Knives	53.0%	18.0%	33.0%	
Kettles, Pots & Pans	31.8% 25.2% 7.8%			
Foods & Spices	oods & Spices 14.6% 56.1% 58.5%			
Fire Steels	0.6%	0.7%	0.7%	

³⁸ Walter S. Dunn, Jr., *The New Imperial Economy: The British Army and the American Frontier, 1764-1768.* (Westport, Connecticut, Praeger Publishers, 2001), 97.

³⁹ George Irwing Quimby, *Indian Culture and European Trade Goods* (Madison, Milwaukee, London, The University of Wisconsin Press, 1966), 75; Sydney B.J. Skertchly, *On the manufacture of Gun-Flints, The Methods of Excavating for Flint, The Age of Palæolithic Man, and The Connexion Between Neolithic Art and the Gun-Flint Trade* (London, Published by Order of the Lords Commissioners of Her Majesty's Treasury, 1879) 46-64.

⁴⁰ Charles Hanson, Jr., Some Thoughts for Buckskinners and Others, in *Museum of the Fur Trade Quarterly*, Vol. 14, No. 7, Summer 1978, 1-2.

While the overall value of the Cooking & Foods functional category are quite comparable between data sets, the sub-categories within the group show marked differences (Table 8). The FJI indicates that obtaining the equipment necessary to butcher and cook foods took a far higher priority than purchases of Anglo-American foods. Knives and Kettles, Pots & Pans constitute more than 80% of the functional category. Between data sets the percent value for Knives and for Foods & Spices particularly show a considerable divergence. However, the line item on the inventory for knives represents an unusual entry, listed simply as 23 dozen (276) assorted knives at \$2.28/dozen. This entry specifies neither the types or sizes of knives, or their prices which could range considerably in cost. One possible explanation for this entry is that a collection of knives was packed and inventoried for a different trading outfit which was subsequently canceled or delayed and that this package of knives was then incorporated in the FJI. The clerk or trader assembling the FJI then may have taken the total values for this assemblage without resorting to a line item for each type and size of knife. According to the March 1838 liquidation inventory Fort Jackson had on hand various sizes of butcher knives, finest and second quality scalping knives, green and white handled cartouche knives (resembling modern-day steak knives), fancy and inlaid-handled knives, and single and double-bladed folding knives. The assorted knives on this inventory likely represented some combination of those shown on the liquidation inventory, but probably was strongly biased towards scalpers and butchers, two of the most popular types. The cost of \$2.28 per dozen most likely represents an average cost of the assorted knives. Wholesale costs given for various sizes of butchers and scalpers on the FHL range from \$1.32/dozen for the cheapest scalpers to \$3.00/dozen for the largest size butchers, with most sizes and types ranging from \$1.92/dozen to \$2.16/dozen, suggesting that average cost of \$2.28 given for the FJI knives is a reasonable number. There is evidence on the liquidation inventory that at least some of the knives were manufactured in Sheffield, England⁴¹.

Foods & Spices has a far lower value on the FJI relative to the other data sets, which initially suggests that the plains Indians had little or no appreciation for Anglo-American foods. However, if that sub-category is further partitioned, as shown on Table-9 it is clear the Sugar and Coffee & Tea were the priority food items with similar percent values on all three data sets, indicating that the Plains Indian consumers taste in foods were actually comparable to the white hunter/trappers of the other inventories, and that knives and cooking equipment simply had a much higher priority.

Table-9 Comparison of Items within Food & Spices			
	Fort Jackson	Fontenelle,	Fort Hall
		Drips & UMO	
Sugar	56.1%	42.9%	26.6%
Coffee & Tea	40.1%	40.2%	44.8%
Rice	3.8%	3.3%	4.0%
Corn	0.0%	1.8%	0.0%
Flour	0.0%	1.4%	17.3%
Spices	0.0%	1.4%	3.9%
Dried Fruit	0.0%	2.7%	0.0%
Chocolate	0.0%	0.0%	3.5%

⁴¹ 41 Peterson, 56-62.

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Kettles, including brass, sheet iron and jappaned kettles constitutes the next most important subcategory after knives. Jappaning is a process of coating a sheet iron kettle with a veneer of oils, gum, and asphaltum to protect it from rusting. Both brass and sheet iron kettles were purchased wholesale by the pound and likewise were retailed by the pound. Costs given for sheet iron kettles are comparable to costs listed on the FDU, and the cost given for brass kettles is likewise comparable to costs listed on the BSVC July 21, 1840 inventory⁴². The FHL indicate that the retail markup on sheet iron kettles was approximately 600%.

Table-10 lists items on the FJI that belong to the Cooking & Foods functional category.

Table-10 Fort Jackson Cooking & Foods		
Quantity	Item Description	Wholesale Cost
23 dozen	assorted knives	\$2.28/dozen
7	brass kettles, assorted, 30 pounds	\$0.62½/pound
2	jappaned kettles	\$1.92/ea
3	sheet iron kettles, 20 pounds	\$0.27½/pound
1	frying pan	\$0.37/ea
5.5 pounds	brass kettles wire [bails?]	\$0.55/pound
1 dozen	fire steels	\$0.60/dozen
35 pounds	coffee	\$0.16½/pound
60 pounds	sugar	\$0.13½/pound
10 pounds	rice	\$0.05½/pound

Alcohol Use: Alcohol was a necessary part of trade with Indians, though there is abundant evidence that traders, particularly those in remote trading camps attempted to control or limit access to alcohol⁴³. The four data sets are all roughly comparable for Alcohol Use (Figure-3), though this category is relatively low on the FJI at 1.8 percent of the total inventory value. FDU lists cognac-brandy, shrub and alcohol and the FHL lists rum, whiskey, brandy and alcohol, the FJI simply lists fifteen gallons of alcohol with a wholesale price of \$1.10 per gallon. Though this category represents less than two percent of the total FJI inventory value, if sold, the profits were likely immense. On the FHL alcohol with a wholesale cost of approximately 95 cents/gallon was being sold retail for \$24.00/gallon, approximately a 2500% markup. However, it is quite likely that some or all of the FJI alcohol was intended to be given out with other gifts to the Indians as part of the necessary formalities establishing friendship and goodwill prior to opening trade. In December 1846 Lewis Garrard describes arriving in an Indian village which was in an uproar because "opposition traders" had conferred a gift of liquor⁴⁴. Whether to be gifted or traded, it is almost certain that the alcohol was diluted substantially prior distribution to the Indian consumers.

There is no indication in the inventory as to the origin of the alcohol. Most trade goods at Fort Jackson were probably received by way of Fort Laramie, the PCJC's primary trading center in the region. However, the company had good reason to be hesitant about transporting it's alcohol

⁴² Ledger DD, April 16, 1839-July 1840, Pierre Chouteau Collection, Missouri Historical Society, St Louis, pp 76-89.

⁴³ Charles Larpenteur, Forty Years a Fur Trader on the Upper Missouri, The Personal Narrative of Charles Larpenteur 1833-1872 (New York, Francis P. Harper 1898), V. I, edited Elliot Cous, 189. Fort Hall Ledgers, Instructions to Robert Evans. George Bird Grinnell, Beyond the Old Frontier: Adventures of Indian-Fighters, Hunters and Fur-Traders (Williamstown, Massachusetts, Corner House Publishers, 1976), 181.

⁴⁴ Lewis H. Garrard, Wah-To-Yah and the Taos Trail, (Oklahoma City: Harlow Publishing Co., 1927), 76.

via this route in 1837. In 1832 the U.S. Congress placed a total ban on the introduction of ardent spirits into Indian country⁴⁵. In order to evade this restriction in 1833 Kenneth McKenzie imported a still to Fort Union in an operation which he code-named the Cincinnati Project. It wasn't long before opposition traders tipped off the federal authorities. During the ensuing brouhaha in 1833-34 the AFC was severely embarrassed before the U.S. Congress, had to call in considerable political favors and was in some danger of losing its license to trade in the Indian country⁴⁶. It would be reasonable to guess that the alcohol on the 1837 inventory was obtained from one of the many distilleries in the Taos valley, quite possibly the distillery operated by Simeon Turley, an American expatriate living in Mexico at that time. The shipping distance from Taos to Fort Jackson was just over three hundred miles, approximately half the distance from Independence, Missouri. Furthermore, if this alcohol was produced by Simeon Turley, delivery may have even been included as part of the transaction. By 1836 competition in the Taos area between whiskey distillers had become so intense that Turley hired Charles Autobees to act as a salesman, exchanging whiskey and coarse Mexican flour for robes at American trading posts on the South and North Platte Rivers⁴⁷. That commercial transactions between Autobees and Fort Jackson took place is revealed by a document showing that Sarpy and Fraeb paid "Charles Ottabees" \$13 on March 1, 1838, though the document does not specify what was being sold or exchanged⁴⁸. Alcohol from the Taos distillers therefore not only had the advantage of lower transportation costs, but was virtually free from the risk of confiscation and/or political embarrassment as well.

The trade in alcohol represents one of the darkest aspects of the fur trade. Through use of alcohol as a trade item, the Indians, both individually and as nations and societies were debased, and many hunters and trappers were essentially enslaved through debt to the company. Warren Ferris says the following of the alcohol trade: "The curse of liquor has not yet visited the Indians in the mountains; but has found its way to almost all those who inhabit the plains; whose faculties are benumbed, whose energies are paralyzed, and who are rapidly sinking into insignificance and oblivion, by the living death, which their unhappy predilection for "strong water," has entailed upon them. They were gay and light hearted, but they are now moody and melancholy; they were candid and confiding, they are now jealous and sullen; they were athletic and active, they are now impotent and inert; they were just though implacable, they are now malignant and vindictive; they were honorable and dignified, they are now mean and abased; integrity and fidelity were their characteristics, now they are both dishonest and unfaithful; they were brave and courteous, they now are cowardly and abusive. They are melting away before the curse of the white man's friendship..."49. Similar observations were made in journals and diaries kept by other trappers and traders. However, distribution of alcohol amongst the Indians must also be placed in the context of drinking customs in the United States at that time. The period 1790-1830 coincides generally with one of America's greatest drinking binges. During this time period

⁴⁵ Barton H. Barbour, *Fort Union and the Upper Missouri Fur Trade* (Norman Oklahoma: University of Oklahoma Press, 2001), 151.

⁴⁶ Paul Chrisler Phillips, *The Fur Trade* (Norman, Oklahoma: University of Oklahoma Press, 1961), 426-429.

⁴⁷ Janet Lecompte, Simeon Turley, in *The Mountain Men and the Fur Trade of the Far West, Vol. VII*, ed. LeRoy Hafen (Spokane, Washington: Arthur H Clark Co. 2003), 304.

⁴⁸ Janet Lecompte, Charles Autobees, in *The Mountain Men and the Fur Trade of the Far West, Vol. I*, ed. LeRoy Hafen (Spokane, Washington: Arthur H Clark Co. 2003), 33.

⁴⁹ Warrren Ferris, Life in the Rocky Mountains: A Diary of Wanderings on the sources of the Rivers Missouri, Columbia, and Colorado from February, 1830, to November, 1835, (2012) edited by Matt McCune, 330.

average consumption of spirituous liquors by adults (fifteen years and older) is estimated to have been over seven gallons of absolute alcohol annually. During this time period almost every occasion was an excuse for drinking and social drunkenness was widely expected⁵⁰. Also during this period even the U.S. Military was not exempt from the curse of alcohol. Between the years 1823 to 1828 most courts martial and as many as one-third of deaths in the service were alcohol related⁵¹.

Adornment: This functional category was of importance to both men and women. From descriptions left by early journalists on the plains it is clear the Plains Indians were very particular about their personal appearance and the appearance of their possessions. According to F.A. Wislizenus writing about his observations of the Kaw Indians in 1839, "Like all Indians, they are fond of painting themselves with vermilion. A red ring around the eyes is considered particularly becoming. To the dressing of the hair the men give more care than the women...... Both sexes also adorn themselves with all possible ornaments of beads, coral, brassware, feathers, ribbons, gaudy rags, etc⁵²." John Wyeth writes this description of a Blackfoot Chief in 1833: "The Black-foot chief was a man of consequence in his nation. He not only wore on this occasion a robe of scarlet cloth, probably obtained from a Christian source, but was decorated with beads valued there at sixty dollars. This was a great display of wealth because at this time unskilled labor was valued at \$70 annually and gold at less than \$20.00 per ounce⁵⁴.

Figure-3 shows the FJI value of Adornment differs considerably relative to the other data sets. If this is not an anomaly due to limited data, it suggests that the Southern Plains Indians had a relatively higher standard of living and surplus resources that could be devoted to such non-essential uses. Table-11 below compares sub-categories within the Adornment Functional Category. Beads and vermillion clearly make up the bulk of the category on all three data sets. Although not statistically certain, it is interesting to note that with the exception of Rings, the FDU, with its mixed white trapper/Indian customer base always has an intermediate value relative to the FJI and its Indian customers and FHL and its white trapper customers. If this is a valid trend it would, not surprisingly, indicate that Indians had different tastes in style and ornamentation than their white counterparts.

Table-11 Comparison of Subcategories within the Adornment				
	Functional Category			
Fort Jackson Fontenelle, Fort Hall				
Drips & UMO				
Beads	50.7%	68.0%	72.6%	
Vermillion	13.4%	15.8%	21.0%	

⁵⁰ Mark Edward Lender and James Kirby Martin, *Drinking in America: A History*, (New York, The Free Press, 1987), 46.

⁵² Frederick Adolph Wislizenus, *A Journey to the Rocky Mountains in the Year 1839* (St Louis, Missouri Historical Society), 33.

⁵¹ Barbour, 181.

⁵³ John Wyeth, *Oregon; or A Short History of a Long Journey from the Atlantic Ocean to the Region of the Pacific by Land, 1833*, http://user.xmission.com/~drudy/mtman/html/jwyeth.html [accessed May 30, 2012]

⁵⁴ "Historical Gold Prices: 1833 to Present," http://www.nma.org/pdf/gold/his_gold_prices.pdf [accessed December 14, 2012]

Bells	9.3%	7.3%	2.6%
Silver	3.8%	0.0%	0.0%
Rings	1.5%	2.6%	1.7%
Miscellaneous	21.4%	6.3%	2.1%

There are a great variety of goods in the FJI Adornment category including various sizes of bells and beads, mirrors, shells, different types of plumage, rings, vermilion, silver armbands & gorgets and brass tacks. Table-12 below lists goods and quantities on the FJI.

Table-12 Fort Jackson Adornment				
Quantity	Item Description	Wholesale Cost		
10 masses	white barleycorn beads	\$0.90		
7½ masses	white agate beads	\$1.80		
6 masses	blue agate beads	\$1.68		
1 mass	red barleycorn beads	\$1.20		
10 masses	small white barleycorn beads	\$0.15		
8 bunches	spotted Italian beads	\$.60		
52 pounds	blue & white seed beads	\$0.38%		
4 packs	small hawk bells	\$0.45/pack		
4 packs	large hawk bells	\$0.72/pack		
5	house bells	\$0.15		
50	sleigh bells	\$0.05		
7	polished bells	\$0.44		
3 sets	wampum moon shells	\$1.50/set		
150	turquoise shells	\$0.10		
1 dozen	foxtail plumes	\$0.30/doz		
½ dozen	red cock plumes	\$0.55/doz		
1 m	brass tacks	\$0.60/m		
2 gross	finger rings	\$0.90/gross		
12 pounds	vermilion	\$1.32/lb		
1 pair	silver wristbands	\$1.50/pair		
1	silver half-moon gorget	\$3.00		

Beads are by far the single most common item in this category constituting nearly half of its value. By the beginning of the 1800's most bead manufacturing in Europe was conducted as a large-scale, high-volume process. Major European bead making centers at that time were located in Murano (Venice), Belgium, Bohemia and Moravia (Czechoslovakia)⁵⁵. The FJI does specify "Spotted Italian Beads" which would have been from Murano. It cannot be ascertained if the other beads were also procured from that source of from other production centers. The inventory lists bead quantities in units of pounds, masses and bunches. As currently defined, the term "mass" refers to twelve straight strings (not loops) of one-hundred beads per string, a total of 1,200 beads. A "bunch" of beads may be equivalent to the modern term hank. Hank is not a precise term, but generally is comprised of 8 to 14 looped strands of beads, with each strand varying in length from 12 to 20 inches⁵⁶. Instructions from Nathaniel Wyeth to Robert Evans in the FHL suggest that a "bunch" is equivalent to one fathom (six feet). Also supporting this, in the

⁵⁵ Ryan R. Gale, *The Great Northwest Fur Trade: A Material Culture, 1763-1850* (Elk River, Minnesota, Track of the Wolf, Inc., 2009), 38.

⁵⁶ Personal communication with Don Eberhart, Western Trading Post, March 6, 2012

FHL accounts one fathom of cut beads is equivalent in retail price to one bunch of the same type of bead. Agate beads are large round to ovoid, somewhat opalescent glass beads⁵⁷.

The FJI does not describe bead sizes, except for 52 pounds of seed beads. Today beads defined as seed beads range in size from 18/inch (1.4mm) to 10/inch (2.5mm). Larger beads today are usually known as pound or pony beads. Exactly what size or sizes of seed beads were included with the 1837 outfit is not known. Seed beads smaller than 12/inch (2.1mm) have been recovered from the site of Rocky Mountain House which was active between 1799-1821⁵⁸. Depending on the exact size of the seed beads listed on the 1837 inventory, 52 pounds could possibly comprise more than 2.5 million beads. If James Robertson was successful in trading all of the seed beads, this would suggest that his Indian customers had considerable leisure time to devote to stringing and sewing beads.

The inventory lists 4 packs each of large and small hawk bells. Hawk bells are relatively small, light bells of pressed sheet metal. The name is derived from their early use in England in the sport of falconry to aid in locating the birds while in flight⁵⁹. Based on cost, house bells are of a larger size and so called because in Britain they were used within upper class households to summon servants⁶⁰. At least one source indicates that house bells manufactured in Birmingham were cast and then turned inside and out on a lathe⁶¹. The inventory lists 50 sleigh bells, but without further details. Sleigh bells were cast of brass or bronze, and could range in size from one inch to over 4 inches in diameter⁶².

Wampum Moons & Turquoise Shells, as described on the FJI, seem to be somewhat unusual. Moons were slightly concave disks generally made from conch shells. Moons were produced as sets with gradational sizes and were fastened on cards. Being described as "wampum moons" suggests that these moons may have been fabricated using quahog shells, a species of clam native to the east coast of North America, typically used in the production of wampum beads. The FJI moons were more than likely manufactured by the Campbell family of New Jersey. By the 19th Century the Campbell's developed mechanized methods for drilling and shaping and had

⁵⁷ Steven Leroy DeVore, Beads of the Bison Robe Trade: The Fort Union Trading Post Collection (Williston, N.D., Friends of Fort Union Trading Post, 1992), 60.

⁵⁸ J. Gottfred, "Seed Beads in the Northwest," http://www.northwestjournal.ca/IV2.htm [accessed March 4, 2012].

⁵⁹ Mending Cracked Bells, The Cabinet Cyclopaedia-Useful Arts: A Treatise on the Progressive Improvement and Present State of the Manufactures in Metal, Vol. III (London, 1834), 201.

https://books.google.com/books?id=PWVBAQAAMAAJ&pg=PA201&dq=%22house+bells%22&hl=en&sa=X&ved=0 CEUQ6AEwBDgUahUKEwiZjfHB34vHAhWDmIAKHQUCDSs#v=onepage&q=%22house%20bells%22&f=false [accessed August 2, 2015].

⁶⁰ Henry D. Finsbury, Improvement in House Bells, *Mechanics Magazine, Vol. Tenth*, (London, March 1829) 168-169.

https://books.google.com/books?id=d45fAAAAcAAJ&pg=PA168&dq=%22house+bells%22&hl=en&sa=X&ved=0CFQQ6AEwCGoVChMI5L2b8d6LxwIVQYANCh3ZdwTi#v=onepage&q=%22house%20bells%22&f=false[accessedAugust 2, 2015].

⁶¹ Mending Cracked Bells, The Cabinet Cyclopaedia-Useful Arts: A Treatise on the Progressive Improvement and Present State of the Manufactures in Metal, Vol. III (London, 1834), 201.

https://books.google.com/books?id=PWVBAQAAMAAJ&pg=PA201&dq=%22house+bells%22&hl=en&sa=X&ved=0 CEUQ6AEwBDgUahUKEwiZjfHB34vHAhWDmIAKHQUCDSs#v=onepage&q=%22house%20bells%22&f=false [accessed August 2, 2015].

⁶² Sizing Bells in *Classic Bells*, http://classicbells.com/info/SizingBells.html [accessed August 3, 2015].

been a leading producer of wampum, shell hair-pipes and moons for over a century. The Campbell business records show that these products were produced for both the AFC and for PCIC.⁶³

The FJI lists 12 pounds of vermilion. Vermilion was typically traded or gifted in small quantities packaged in folded papers⁶⁴. For shipping, larger quantities might be packed in leather bags, boxes and even kegs. Vermilion is an orange red or scarlet pigment sold in the form of a powder. When mixed with grease it could be used as body paint or for decorative painting of clothing, containers and other items. It was desirable both for its brilliant color and because it was not subject to fading as were organic based coloring agents. Vermilion is composed of the mineral cinnabar, an ore of mercury with the chemical formula HgS (mercury sulfide)⁶⁵. Naturally occurring cinnabar typically contains numerous impurities, and to obtain the most brilliant color, vermilion is artificially prepared by vaporizing/disassociating the mineral and then allowing the mercury and sulfur to recombine as a sublimate. The resulting mass is brownish in color, but on being powdered assumes an intense red color. There is art as well as process in the production of vermilion and the most brilliant vermilion was produced in China. Vermilion was also produced in Holland and domestically, but the Indians were very discerning of quality and preferred the Chinese vermilion. In 1839 the PCJC experimented with cheaper domestic vermilion, but resumed procuring the Chinese product the following year⁶⁶. Like all mercury compounds, cinnabar is today considered a hazardous substance. Long term use of vermilion as a body paint may well have resulted in absorption of mercury into the body, resulting in varying degrees of mercury poisoning, though, thus far I've not found journal entries suggestive of these symptoms.

Only a single pair of silver wristbands at \$1.50 and one half-moon gorget at \$3.00 are found on the FJI. Wrist bands were C-shaped bracelets made of sheet silver, probably without engraving or other decoration. The half-moon gorget was a convex crescent shaped decoration intended to be worn on the chest. Originally crescent gorgets were worn by British Officers as a symbol of rank, which was subsequently adapted for use as an ornament in the fur trade. These items were likely the product of Canadian, American, or English silversmiths⁶⁷. Comparable costly items fabricated of silver are not found on either the FDU inventory or the FHL. These items may have been brought as a special order, or perhaps Robertson was testing demand. In either case the presence of these items on the inventory again suggests that the Southern Plains Indians had surplus resources which could be expended on such costly decorative items.

VI. Minor Functional Categories

Cumulatively the minor functional categories represent 4-8 percent of the total value of all of the inventories, they are none-the-less significant and necessary to produce a one stop shopping

⁶³ Charles E. Hanson, Jr., "Campbell Wampum," Museum of the Fur Trade Quarterly, V. 21, No. 4 (winter 1985), 2-6.

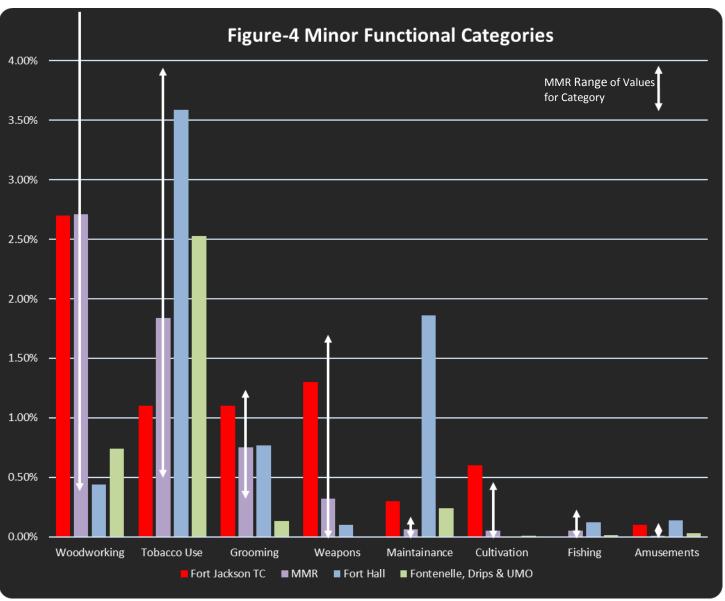
⁶⁴ E.M.Phillips, "The Long Story of Vermilion in the Fur Trade," *The Museum of the Fur Trade Quarterly*, V.31, No.1 (Spring 1995): 12-13. Charles Hanson, Jr., "A Paper of Vermilion," *The Museum of the Fur Trade Quarterly* V.7, No.3, (Fall, 1971):1-3.

^{65 &}quot;Vermilion," http://en.wikipedia.org/wiki/Vermilion [accessed February 21, 2012].

⁶⁶ Charles Hanson, Jr., "A Paper of Vermilion," The Museum of the Fur Trade Quarterly V.7, No.3, (Fall, 1971):1-3.

⁶⁷ George Irwing Quimby, *Indian Culture and European Trade Goods* (Madison, Milwaukee, London, The University of Wisconsin Press, 1966), 92-93.

experience for the Indian consumers. Some of the items in these categories were highly



profitable for the trader, other items were essential to prevent the Indian consumers from taking their business elsewhere.

Minor functional categories are defined as those categories with percent level values of less than 3% of the MMR value. Functional categories that meet this criterion are Woodworking; Tobacco Use; Grooming; Weapons; Maintenance; Cultivation; Fishing; and Amusements. Minor functional categories for the four data sets are compared on Figure-4. Although this figure seems to depict large differences between the data sets in some of the functional categories, this is more apparent than real because of expansion of the vertical chart scale. In reality, a somewhat different mix of goods or quantities might be sufficient to significantly change the rank or value of any individual data set within that functional category. The Woodworking and Cultivation functional groups would have largely fallen within the responsibility area of women and

Weapons within the responsibility area of men. The remaining functional categories would have been of equal interest to men and women.

Woodworking: This category makes up 2.7 percent of the FJI inventory total. As shown on Figure-4 this is almost identical in value and rank to the MMR, though substantially higher than the other data sets. There are only two different types of items described on the FJI inventory that fall into this category; 25 squaw axes at 82¢ each, and 3 Collins axes at \$1.70 each. These tools would have been utilized far more often by women than by the Indian males. The close comparison of this functional category between the FJI and MMR is surprising. The northern woodland Indian consumers of the MMR would have been expected to have much greater utility and need for woodworking tools than the Plains Indian consumers of the FJI.

The Collins axe was a product of the Collins Company. The Collins Company (known throughout its history by similar variations) was established in 1826 and was located in Connecticut. The company quickly established a reputation for producing high quality axes. In 1831 factory prices for Collins axes were quoted at \$20 a dozen and in 1841 at \$13 a dozen. It isn't clear specifically what axes these prices apply to as the company did produce axes of many different styles and weights ranging from one-half pound up to at least five and one-quarter pound⁶⁸. The 1837 inventory costs for Collins axes are \$1.70 each which is roughly comparable to the factory prices shown above.

A squaw axe is a broad term generally which applied to relatively inexpensive light axes or tomahawks manufactured primarily for trade purposes. These tools were often the choice of Indian women for use in gathering firewood, hence the name. On the FHL squaw axes were marked up 400% from \$.62½ to \$2.50.

Tobacco Use: This category constitutes only 1.1 percent of the FJI and would have been of interest to both Indian men and women. Several pictures by Peter Rindisbacher in the first half of the 1800's shows both Indian men and women smoking⁶⁹. The different data sets show a range of values of several percent with the FHL accounts having the highest value (Figure-4). This again may be due to Fort Hall employees having regular access to the fort with the concurrent opportunity to replenish their supply of this addictive product. According to the FJI, 90 pounds of what appears to be a single grade of tobacco was taken. Almost certainly some portion of the tobacco was intended for use as gifts to establish good will and friendship prior to commencing trade. The remaining tobacco would have been highly profitable as a trade item. The average markup of tobacco products on the FHL is roughly 1100%. An item conspicuous by its absence from the FJI inventory list is clay tobacco pipes, especially given the quantity of tobacco taken. The October 1838 liquidation inventory shows that Fort Jackson did have a considerable supply of tobacco pipes at that time, listing 350 pipes plus additional cases of uncounted pipes. At that time clay pipes were extremely low cost. The FDU for 1833 lists clay pipes at 68¢ per gross, that

⁶⁸ James Hanson, "Collins Axes", in *Museum of the Fur Trade Quarterly*, Vol. 47, No. 4, (Winter 2011), 1-7.

⁶⁹ Peter Rindisbacher, Indians, 1821; A Halfcast and His Wife and Child, 1825; A Metis Man and Two Spouses, 1825-26.

is less than ½ cent each⁷⁰. As with needles and fabric discussed above, I suspect that pipes were intended to be given out as complementary items along with the purchase of tobacco and were simply not listed on the inventory.

Grooming: Figure-4 shows that this functional category has a value of 1.1 percent of the total FJI and is somewhat higher than the other comparison data sets. Table-13 shows FJI items which

Table-13 Fort Jackson Grooming			
Quantity	Item Description	Wholesale Cost	
4 dozen	paper covered looking glasses	\$0.46/dozen	
6	large britannia looking glasses	\$0.33/ea	
6	small britannia looking glasses	\$0.25/ea	
8 dozen	combs	\$0.60/dozen	

fall into this category. The paper covered looking glasses were small round mirrors of a size which would have easily fit in a pocket. These were inexpensive with a wholesale cost of less than 4ϕ each but would have been quite profitable. At Fort Hall pocket looking glasses

are listed with a wholesale cost of 3ϕ and were being sold retail for 75ϕ . The britannia looking glasses, at 33ϕ and 25ϕ each, were of a larger size with a frame of britannia metal. Britannia metal is a white alloy consisting primarily of tin with subordinate amounts of copper, antimony, and sometimes bismuth and zinc, similar to pewter, but brighter and harder.

No description of the combs is given on the FJI. At Fort Hall there are a number of different types of combs described; coarse and fine toothed, and fabricated of horn, ivory and wood. Most combs at Fort Hall retailed for \$1.00 each. Combs were probably obtained from domestic sources, Leominster, Massachusetts being a comb-manufacturing center since colonial times⁷¹.



Weapons: This category on the FJI has a value of 1.3 percent of the total inventory which is higher than the MMR and FHL (Figure-4). The FDU inventory lists nothing which would fall within the Weapons category. The FJI contains only two types of items within the category; five battle axes at \$1.92 ½ each and one small sword at \$2.25.

The small sword is likely a novelty item or curiosity, but whether this was included in the inventory as part of a special order, or simply as a test of consumer interest cannot be determined.

Precisely what a battle axe is I have not been able to determine. They are not pipe tomahawks, because these two items are listed separately on Bent's Fort ledgers⁷² with battle axes priced at \$1.75 (which is nearly equivalent to the cost of the Fort Jackson battle axes), and pipe tomahawks priced at \$3.00. John Baldwin in

Tomahawks-Pipe Axes of the American Frontier has identified what he has termed a "War Axe" as a long handled, lightweight axe with a short eye, and large triangular blade which may be

⁷⁰ Fontenelle, Drips and U.M.O. June 1, 1833 accounts, Pratte, Chouteau & Co., Vol. EE, page 6, Choteau-Maffitt Collection of the Missouri Historical Society, St. Louis, Fur Trade Ledgers.

⁷¹ Bernard W. Doyle, Comb Making in America: An Account of the Origin and Development of the Industry for Which Leominster has Become Famous (Leominster, MA, Viscoloid Company, 1925).

⁷² Ledger Z, May, 1838-July, 1839, Pierre Chouteau Collection, Missouri Historical Society, St. Louis pp 426-433, and Ledger DD, April 16, 1839-July 1840, Pierre Chouteau Collection, Missouri Historical Society, St Louis, pp 76-89.

equivalent to a battle axe^{73} . In 1833 Karl Bodmer illustrated a Mandan chief holding what appears to be a battle axe or war axe (Figure 5).⁷⁴

Maintenance: All data sets are quite comparable in this category except the Fort Hall Ledgers which has a value several times greater than the other data sets. One possible explanation for the apparent nonconformity again is that the Fort Hall trapper/hunter employees had regular access to the fort. As equipment and gear belonging to company hunter/trappers broke down or became unserviceable, repairs could be made through the purchase of relatively inexpensive tools. The value of this category on the FJI is 0.3% of the total inventory value.

The FJI lists a total of sixteen assorted files at $14\frac{1}{2}$ ¢ each and three pounds of iron wire. The files would have found use for sharpening knives and axes and they would have also been suitable for shaping wood, bone and soft stone into useful or decorative shapes. Only various types of files are found on the FDU inventory, whereas on the FHL files dominate, but there are also an assortment of screwdrivers, rasps and whetstones listed.

<u>Cultivation</u>: The FJI is considerably higher, at 0.6% of the total inventory value, than the other data sets in this category (Figure-4). FDU lists only a single item that falls within this category, and there is nothing that was sold at Fort Hall related to cultivation.

The FJI lists fifteen common hoes at 36½¢ each. The FDU lists a single hoe at 38¢. This is an interesting item, because if used for its intended purpose, its presence suggests that the Plains Indian consumers, who were nomadic, practiced at least some limited forms of agriculture. The hoes may have been used to start gardens in sheltered locations which were then left to survive as best they could until the village returned to that location later in the summer or fall. John R. Bell, the official journalist for the Stephen Long expedition of 1820, notes in his journal several such untended gardens of corn, pumpkins and watermelons at locations along the Arkansas River⁷⁵. Hoes could have found further use amongst the Plains Indians for such purposes as leveling campsites, or digging roots⁷⁶. The watermelons would have been quite similar to those we are familiar with today. Originating in Africa, they have been under domestication for over 2,000 years. Brought to the Americas by the Spanish conquistadores, they rapidly spread throughout the New World by trade between native peoples⁷⁷.

Fishing: There are no fishing related items on the FJI, and Figure 4 shows the other data sets with very small values for this functional category. The Fort Jackson liquidation inventory shows

⁷³ John Baldwin, *Tomahawks-Pipe Axes of the American Frontier*, (West Olive, Michigan, Early American Artistry-Trading Company, 1995), 20.

⁷⁴ Matô-Tope, a Mandan chief. Painting by Karl Bodmer, 1833-34, http://commons.wikimedia.org/wiki/Karl Bodmer#/media/File:Mat%C3%B4-Tope 1.jpg [accessed 03/26/2015]

⁷⁵ John R. Bell, *The Journal of Captain John R. Bell: Official Journalist for the Stephen H. Long Expedition to the Rocky Mountains, 1820*, edited by Harlin M. Fuller and LeRoy R Hafen (Glendale, California: The Arthur H. Clark Company, 1957) 230, 236.

⁷⁶ James A. Hanson, "A Typology of Fur Trade Hoes", Museum of the Fur Trade Quarterly, V.40, No.2 (Summer 2004), 5.

⁷⁷ Mark Strauss, The 5,000 Year Secret History of the Watermelon, National Geographic http://news.nationalgeographic.com/2015/08/150821-watermelon-fruit-history-agriculture [accessed October 1, 2015].

that fish hooks were available to James Robertson. Hooks were another very inexpensive item, the FDU and FHL listing them respectively at 7ϕ and 10ϕ a dozen. Whether Robertson choose not to include fish hooks in his outfit, or simply failed to list this item on the inventory we cannot know. According to George Bird Grinnell the Cheyenne were fond of fish. He describes their method of catching fish by constructing a weir of willow branches wherein large numbers of fish could be taken with relatively little effort⁷⁸.

Amusements: Figure-4 shows the Amusements functional category consistently with the lowest percent value in all of the data sets. Playing card constitute the entirety of this category on all three of the inventories for which details are available, all with a wholesale cost of 15ϕ per pack. At Fort Hall, playing cards retailed for \$2.50/pack.

Gambling was a favorite activity amongst both Indian men and women and with the introduction of playing cards, card games were quickly adapted for that purpose⁷⁹ though with some variations on traditional card games. For example, soldiers at Fort Pierre in 1855 attempted to teach local Indians poker⁸⁰. Due to cultural differences these attempts produced an unusual aberration of the rules. The Indians esteemed the Jacks and dubbed them "Chiefs" valuing them over the Kings. They also considered the Queens to be equivalent to a squaw, which therefor was valued less than a deuce.

VII. Summary and Conclusions

The Indian consumers were not at the tail end of a supply chain receiving left-overs, odd-lots, and out of spec items, but rather were the focal point of a global trading network established explicitly to serve their needs and to meet their expectations. The Indians were sophisticated, knowledgeable consumers. The Indians had their own expectations of quality and fashion, and if the goods made available didn't meet those expectations, those articles would in many cases remain unsold and be returned to the supplier. Indians were also well aware of a trader's opposition, the goods available there and prices, and were not reluctant about pointing out better arrangements that could be obtained elsewhere.

Although the data set represented by the FJI is not statistically valid in and of itself, it compares well with other similar data sets. This suggests that the value of functional categories on the FJI is probably not significantly skewed by one-time factors and that the inventory is therefore likely representative of the types and distribution of goods taken for trade with the Plains Indians. The December 2nd, 1837 Fort Jackson Inventory and the comparison data sets demonstrates that the needs, requirements and desires of the Plains Indians, Northern Woodland Indians and white hunter/trappers, who lived a similar lifestyle, are generally comparable although the specific articles that they purchased to obtain fulfillment might vary considerably.

⁷⁸ George Bird Grinnell, edited by Joseph A. Fitzgerald, The Cheyenne Indians: Their History and Lifeways (Bloomington, Indiana World Wisdom Inc., 2008), 111-113.

⁷⁹ Caleb Atwater, *Tour to Prairie du Chien; Then to Washington City in 1829* (Columbus, Ohio: Isaac N. Whiting, 1831), 117.

⁸⁰ Robert G. Athearn, Forts of the Upper Missouri, (n.p.: Prentice Hall, Inc. 1967), 45.

The December 2nd, 1837 inventory offers a significant view into the needs and desires of the Plains Indian consumer. Foremost, the Indian consumer was primarily interested in soft, warm, woolen blankets and fashionable, comfortable, colorful clothing. Other than Chief's Coats and capotes, the demand for ready-made clothing appears to have been subordinate to clothing the Indians could fashion for themselves from woolen and cotton fabrics.

The Plains Indian consumers appear to have had a relatively high standard of living, with a surplus of material resources and abundant free time which could be expended on items and activities which could be used to improve his or her attractiveness, make their surroundings more pleasurable, and to decorate and beautify objects in and around their dwellings.

Items for cooking, hunting, and alcohol are all important, and along with clothing and adornment cumulatively constitute 93% percent of the FJI. Alcohol, although potentially highly profitable, and indispensable to the trade constitutes only 1.8% of the FJI inventory.

The remaining categories, which include Woodworking, Tobacco, Grooming, Weapons, Maintenance, Cultivation, and Amusements, represent a relatively minor though important part of the FJI, with all of these categories totaling less 7% of the total inventory value.

Contrary to common perceptions, this trading outfit, as well as the others it is compared to, in no way resembled either a mobile booze shop or weapons store, but was far more comparable in distribution, variety and types of goods to those stocked by a modern super department store.

Although the trade was largely conducted by Indian men, the fact that more than 70% of the inventory value falls within functional categories associated primarily with responsibility areas of women, suggests that women would have had considerable input into purchasing decisions.

Acronym List

AFC American Fur Company

BSVC Bent, St. Vrain & Co.

FJI December 2nd, 1837 Fort Jackson Inventory

FHL 1834-1835 Fort Hall Ledgers

FDU 1833 Fontenelle, Drips and UMO Inventory

MMR Montreal Merchants Records

PCJC Pierre Choteau Jr Co.

UMO Upper Missouri Outfit