

Gender and Dollarware

An examination of gender and its relationship to the weight, volume, height, the presence of writing and the number of colours on discount ceramic drinking vessels

Jess Beck

Department of Anthropology, McGill University



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License](http://creativecommons.org/licenses/by-nc-nd/3.0/).

Cite as: Beck, Jess. 2008. Gender and Dollarware: An examination of gender and its relationship to the weight, volume, height, the presence of writing and the number of colours on discount ceramic drinking vessels. Dollarware Project, report 11. <http://dollarware.org/report11.pdf>.

Abstract: An examination of the relationship between the gender and the weight, volume and height of Dollarware and Value Village Ware vessels demonstrates that there is no significant difference between the physical properties of the various genders. In regards to the presence of writing on vessels, it was found that it is most likely that 'written' vessels are neutral, or following that female and finally male.

Introduction

An examination of the gender of Dollarware and "Value Village Ware" provides a means for investigating the relationship between the purported demographic to which Dollarware is marketed and the physical attributes of the artefacts being marketed. A comparison of the gender composition of these two assemblages is telling, as it demonstrates whether or not an assemblage consisting of products being specifically purchased and marketed (Dollarware) shows any trends in regards to gender versus an assemblage consisting of artefacts received by arbitrary donation and then marketed (Value Village Ware). Additional investigation of the relationship between the 'gender' of Dollarware and Value Village Ware and the weight, volume and height of the artefacts will demonstrate whether or not gendered objects possess any characteristic physical properties, while examinations of the number of colours per vessel and the presence or absence of writing on artefacts will explore the aesthetic dimensions to gendered artefacts.

Methods

The discounted ceramic drinking vessels were gendered using a set of criteria that allowed for the subsequent sorting of both assemblages into three gender classes: Male, Female and Neutral. These criteria can be found in Appendix A. From this point forward it should be noted that the 'gender' of mugs implicitly refers to the gender of their purported purchaser. Once all of the artefacts had been categorized according to their gender, three other physical properties were investigated: artefact weight, volume and height. These measurements were taken through concerted effort of the entire Dollarware research team, with the use of an electronic scale in the first two classes and a set of callipers in the third. Once all of the above measurements were collected, each physical property was examined in regards to gender in both the Dollarware and Value Village assemblies, and the overall gender composition of the two assemblages was compared (the gender compositions were defined as percentages of the total assemblage, so that the smaller size of the Value Village assemblage did not adversely impact the findings). An attempt was also made to examine the relationship between artefact gender and the presence or absence of writing by researching what percentage of each gender displayed writing, as well as what percentage of the writing pertained to a specific gender, for each assemblage. Finally, the relationship between the gender of an artefact and the number of colours it displayed was undertaken by using the existing Dollarware and Value Village Ware colour database, though the non-chromatic colours (i.e. White and Black) were excluded from the data.

Results

Gender Composition of the Assemblages.

In regards to the overall gender composition of the assemblages, it is clear that Value Village is more strongly slanted towards females (by a value of 20%), while Dollarware contains more Male and Neutral mugs (by 4% and 17% respectively).

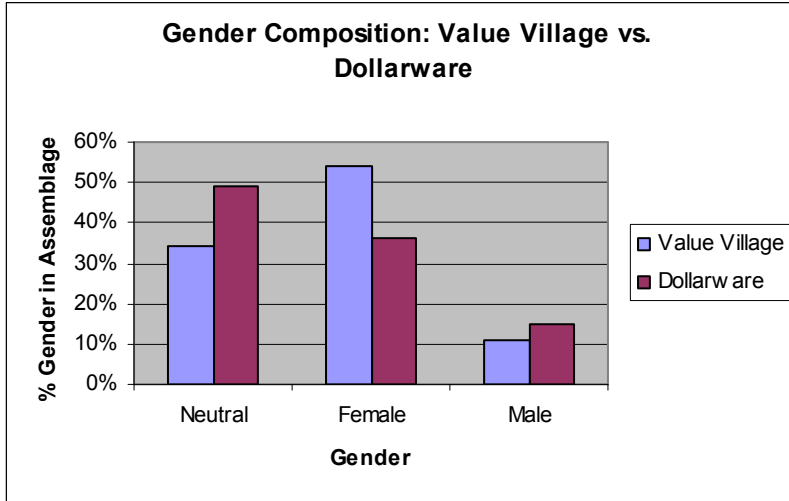


Figure 1

That said, it should be noted that the gender composition of Dollarware is a total taken from 13 individual assemblages. The assemblages themselves are not uniform in composition (see Appendix B). As the graph below demonstrates, there is a great deal of variability among the Dollarware assemblages themselves, with some exhibiting fairly even gender compositions (i.e. Assemblage C) and others exhibiting far stronger biases towards certain genders (i.e. Assemblage H). However, even when the mean average gender composition of Dollarware is calculated, producing a value of 48% Neutral, 37% Female and 15% Male, the gender differences between the Dollarware and Value Village Assemblages remain, with Value Village containing more female vessels, but fewer neutral and male vessels.

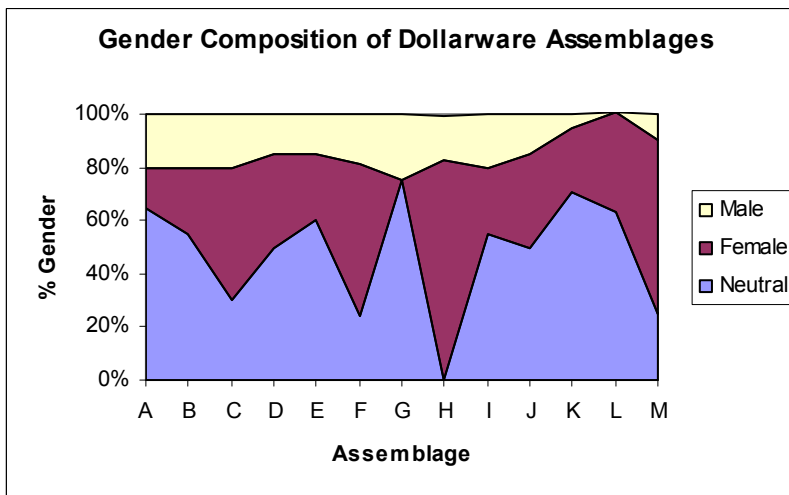


Figure 2

Weight and Gender

	Dollarware		Value Village	
	Mean Weight	Weight Range	Mean Weight	Weight Range
Male	319.3	[79.1, 576.3]	332.8	[281.6, 395.3]
Female	311.6	[154.9, 481.6]	320.1	[93.0, 570.7]
Neutral	310.9	[115, 560.7]	304.5	[235.5, 458.3]
Total	319.4	[79.1, 576.3]	316.2	[93.0, 570.7]

Figure 3

As is clear from the ranges and means in the table above, there are a number of differences between the two assemblages in regards to the weights of different genders. The male vessels in the Value Village assemblage weigh more on average, and have a more concentrated range of weights, than do the Dollarware vessels. Female vessels in the Value Village assemblage also weigh more on average, and their weight range extends beyond that of the Dollarware assemblage. Neutral mugs in both assemblages are more similar in regards to their mean weight (differing only by 6.4 grams, while the male averages differ by 13.5 grams and the female averages by 8.5 grams), though this is the one case wherein the mean weight is greater in the Dollarware assemblage than in the Value Village Assemblage. Additionally, the mean weight of the entire assemblage (regardless of gender) is greater in Dollarware than in Value Village, which is noteworthy considering the differences in the male and female averages between the assemblages. However, it should be noted that there is no strong correlation between gender and weight – while the male and neutral ranges are greater in the Dollarware assemblage, they are both smaller than the female in the Value Village Assemblage.

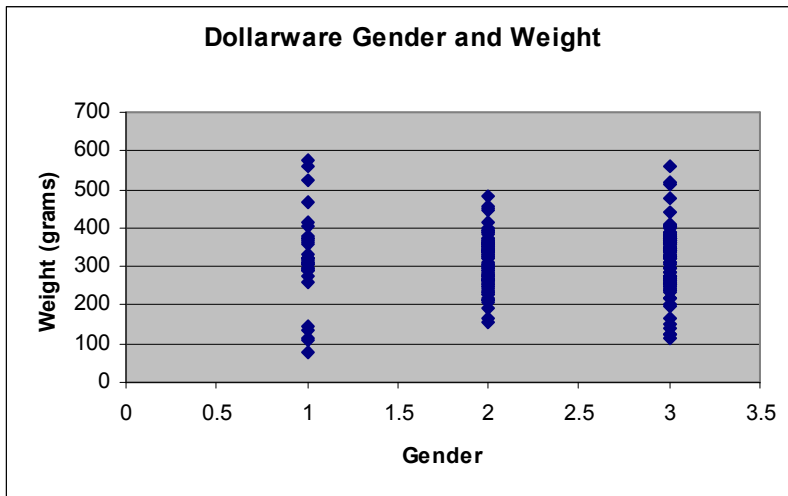


Figure 4

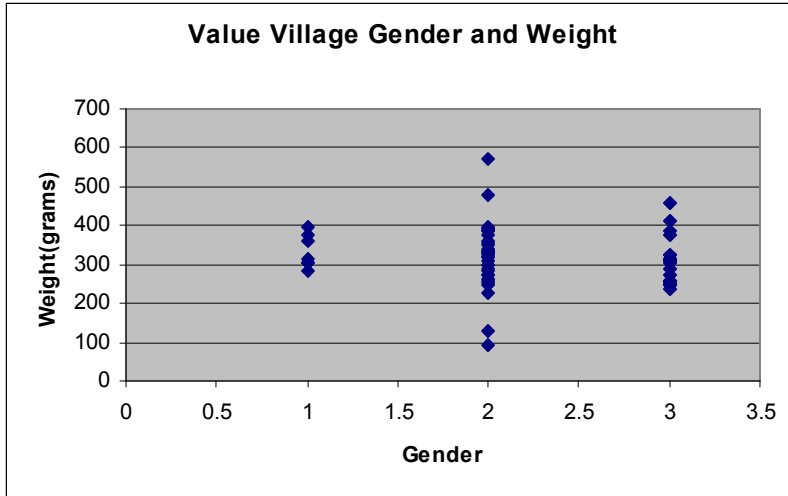


Figure 5

Gender and Volume

In the case of volume means, a similar pattern to weight means occurs as both the male mean volume and the female mean volume are greater in the Value Village assemblage than in the Dollarware assemblage (by 4.4 ml and 2.2 ml respectively). There is little difference in mean volume among the neutral vessels in the assemblage, with Value Village mugs holding only .5 ml more on average. Once again, the mean volume of all Dollarware vessels, regardless of gender is greater than that of the same measurement for Value Village vessels, though only by 1.9 ml.

	Dollarware		Value Village	
	Mean Volume	Volume Range	Mean Volume	Volume Range
Male	310.5	[70.9, 485.0]	314.9	[264.8, 354.0]
Female	319.8	[115.7, 500.8]	322.0	[197.4, 489.8]
Neutral	302.3	[70.2, 581.7]	302.8	[226.8, 524.5]
Total	316.5	[70.2, 581.7]	314.6	[197.4, 524.5]

Figure 6

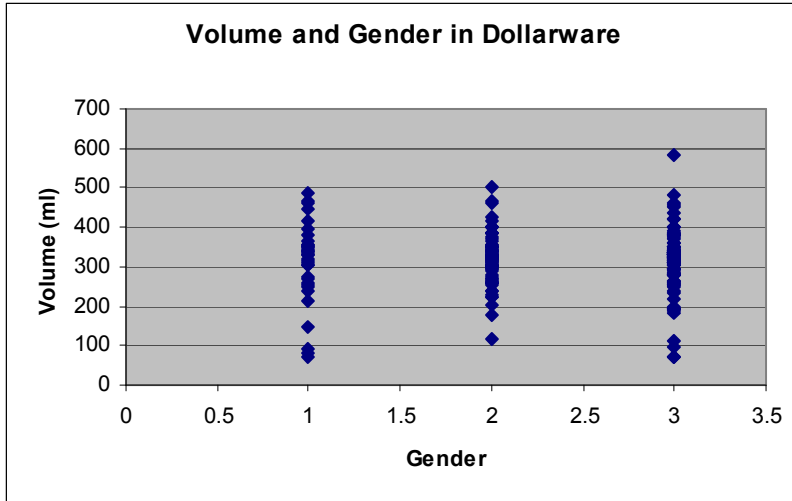


Figure 7

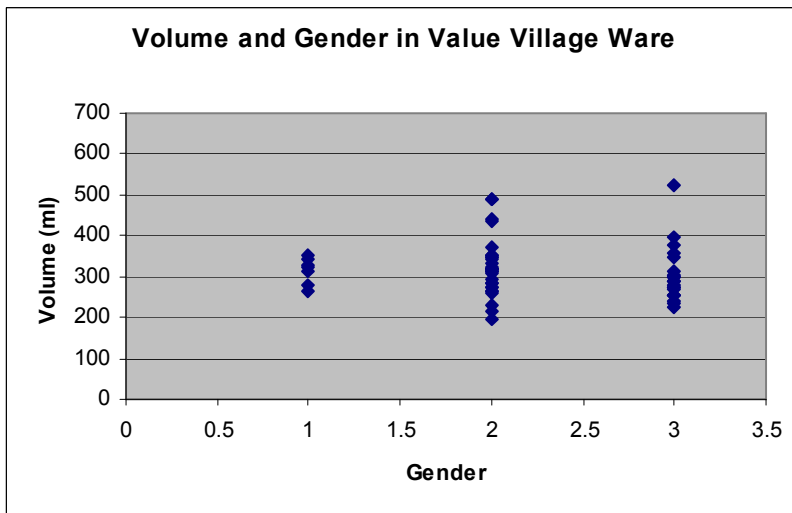


Figure 8

Height and Gender

In regards to the mean heights of the assemblages, male vessels from the Value Village assemblage are taller (by 2.2 cm), as are neutral vessels (by 1.8 cm), but female vessels' mean heights are shorter (by 2 cm). The total mean average height for the assemblages is once again greater in Dollarware (by 1.7) cm.

	Dollarware		Value Village	
	Mean Height	Height Range	Mean Height	Height Range
Male	95.5	[49.3, 153.1]	97.7	[85, 124.2]
Female	97.8	[62.9, 149.5]	95.8	[57.1, 151.1]
Neutral	94.1	[45.3, 148.0]	95.9	[79.3, 123.4]
Total	97.7	[45.3, 153.1]	96.0	[57.1, 151.1]

Figure 9

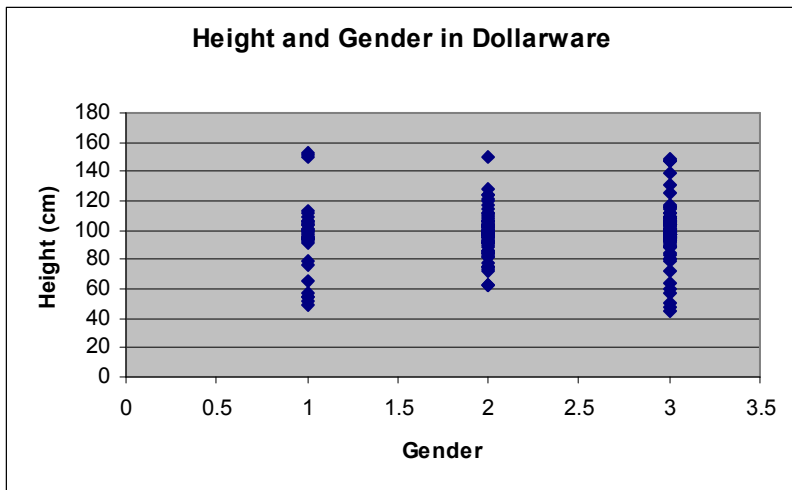


Figure 10

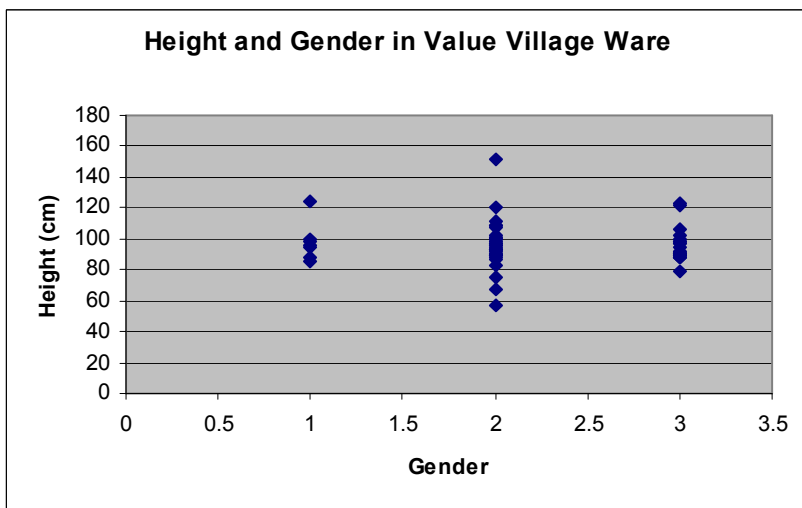


Figure 11

Are there Significant Differences in Weight, Volume and Height in terms of Gender?

In both assemblages, the differences in mean average weights are greater for male vessels, while the mean volumes are greater for female vessels. However, there is no consistent trend in regards to the mean height of vessels and their gender. While male vessels have a greater mean weight than females (by 7.7 grams in the Dollarware assemblage and 12.7 grams in the Value Village Assemblage), and females have a greater mean volume than males (by 9.3 ml in the Dollarware Assemblage and 7.1 ml in the Value Village Assemblage), the heights of all three genders of vessels cluster fairly closely together. However, as the graphs below demonstrate, the mean averages of all three genders are extremely similar, and differences between them are minimal at best.

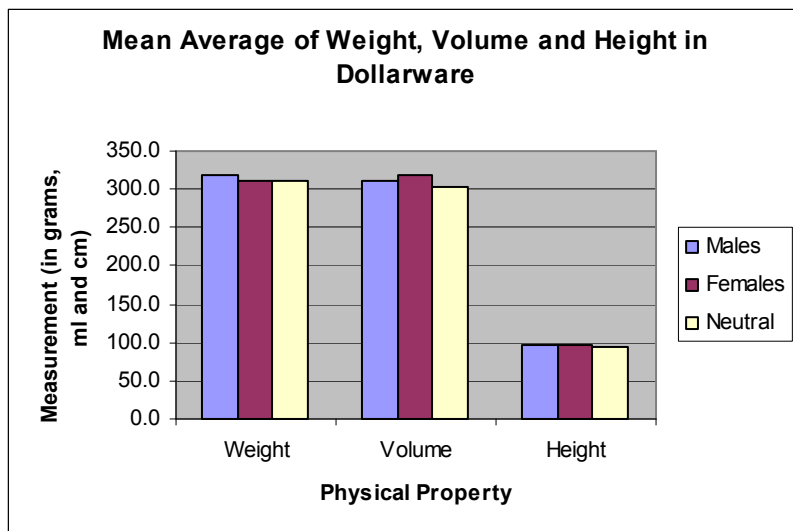


Figure 12

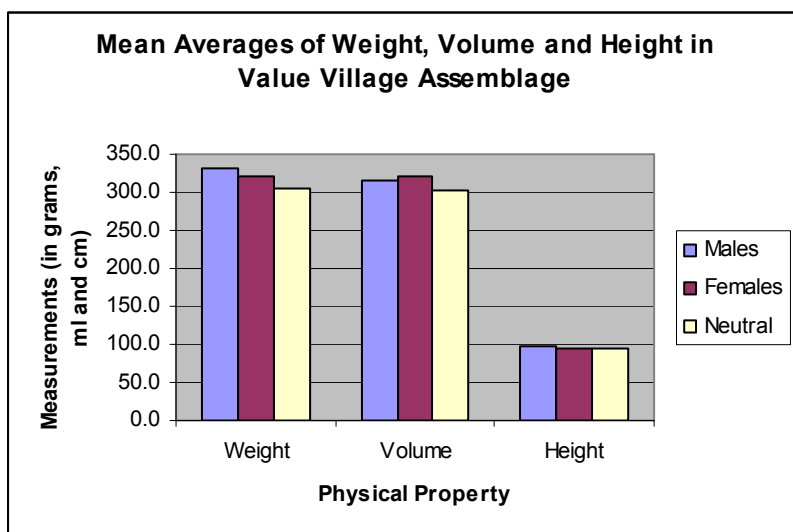


Figure 13

Correlations Between Physical Properties

While there are some differences in the gender composition of the Value Village and Dollarware assemblages, they both show positive correlations between (i) Weight and Height, (ii) Weight and Volume and (iii) Volume and Height. These correlations are strong for female and neutral vessels, and somewhat weaker for men. See Appendix C for a scatterplot of these positive correlations.

Gender and Writing

An examination of the presence or absence of writing on the vessels in relation to their gender produces interesting results. As the graph below shows, 47% of the neutral vessels from the Dollarware collection have writing on them, while 38% of the males and only 23% of the female vessels do. In contrast, a greater percent (57%) of the male vessels from the Value Village assemblage have writing of some form on them, while 38% of the neutral and 24 % of the female Value Village vessels do. The similarity between assemblages in regards to the percentage of female mugs with writing on them is interesting, for it suggests that only about one quarter of the female vessels in an assemblage will ever

have writing on them. However, such hypotheses should be examined in light of the gender composition of the 'assemblage' of vessels with writing on them.

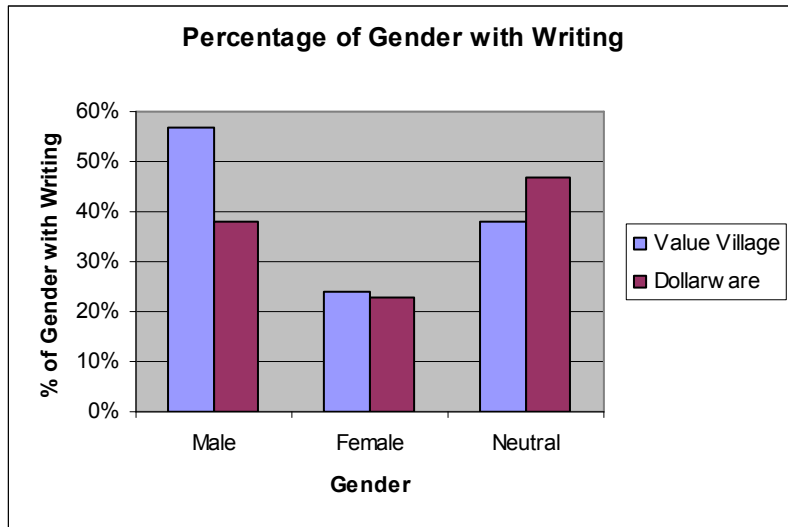


Figure 14

In the Dollarware assemblage, only 37% of the mugs have writing on them. This percentage is strikingly similar to the Value Village assemblage, where 36% of the mugs have writing on them. Additionally, the gender composition of the written aspect of the assemblage is similar for both assemblages. It is most likely that 'written' vessels are neutral, or following that female and finally male.

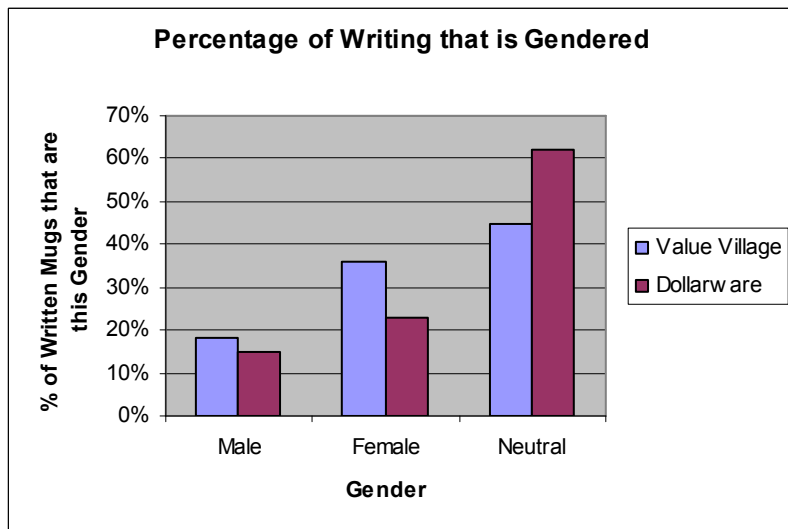


Figure 15

Colour and Gender

When a chi-squared test was performed for the number of chromatic colours in female vessels versus male vessels in the Dollarware assemblage, a P-value of 0.269 was attained (with frequency ranges of 0-3 and 4+), suggesting that there was no significant difference between the number of colours on male mugs versus the number of colours on female mugs. When the same test was performed for the Value Village assemblage, a P-Value of 0.014 was achieved, suggesting that there is some significant difference between the number of chromatic colours on female mugs and the number of chromatic

colours on male mugs. However, when considering that there are only 7 male mugs and 33 female mugs in the Value Village assemblage, the strength of this significance is called into question (See Appendix D for observed frequencies).

In the Dollarware assemblage, the majority of male vessels have 3 or 5 colours on them, while the majority of female vessels have 5 colours (though a greater percentage (by 6%) of female vessels have 5 colours on them). In the Value Village assemblage, most male vessels had two or fewer colours on them, while the females had more colours on average. However, as the data demonstrate, there is no consistent pattern in regards to gender and number of colours among the two assemblages.

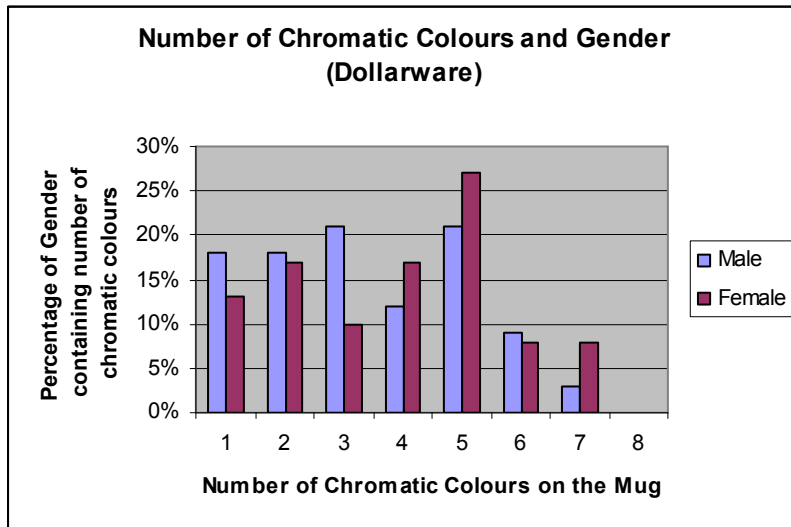


Figure 16

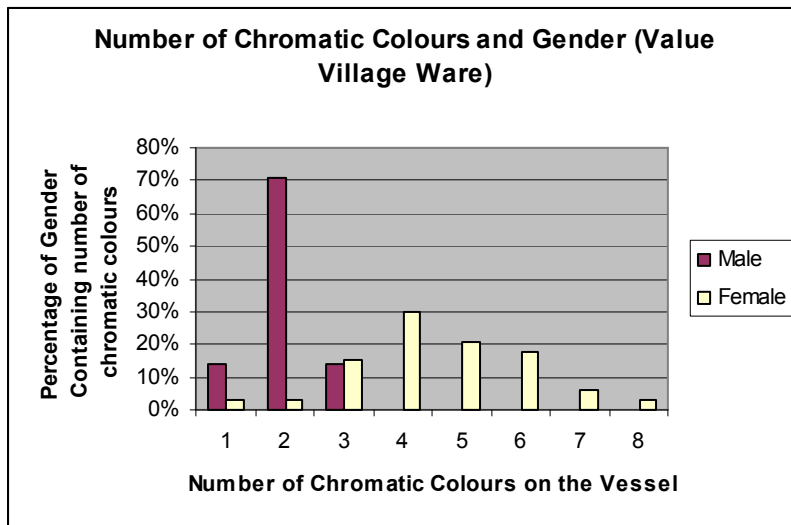


Figure 17

Discussion

The differences in the gender composition between the Dollarware and Value Village assemblages are noteworthy for they indicate the different assemblage acquisition strategies: Dollarware through the mass purchase of specific mugs and Value Village Ware through the reception of objects that have been discarded by their former uses. This explains why the Dollarware assemblage is predominantly composed

of neutral mugs (49%), while Value Village Ware is predominantly (54%) female. Because neutral vessels can be marketed to both genders it appears that they are favourable inclusions in an assemblage, which would suggest that stores which are able to control the gender composition of their vessel assemblages would purposefully select neutral mugs.

The differences in the physical aspects of the vessels based on their gender also vary between the two assemblages. Male vessels, for example, always have the smallest range of all the genders in Value Village Ware. However, they are also consistently larger (in terms of mean averages of their physical properties) than Dollarware vessels. However, intra-assemblage differences between genders are minimal in regards to mug height, though there is a consistent trend for both assemblages in regards to weight and volume. Based on the mean average weight, male mugs weigh more in both the Dollarware and Value Village assemblage, while female mugs have a higher mean average volume than males and neutral. However, the differences in mean average weights and volumes are both minimal and based on mean averages, so the presence of clear and gendered trends of weight and volume among the artefacts themselves is unlikely, given the ranges of the data.

In regards to the gender of vessels displaying evidence of writing, the likelihood that a 'written' mug will be neutral, then female, then finally male, is quite notable. While it can be argued that such a statistic is due to a predominance of neutral mugs in both assemblages, it should be remembered that there are more female mugs than neutral mugs in the Value Village assemblage. In that light, the retention of the gender/writing trend between the assemblages suggests that neutral mugs are more likely to contain writing than female mugs, even when there are more female mugs in an assemblage. This in turn calls attention to the reasons for such a pattern – is it more difficult to market female vessels with writing on them than neutral vessels with the same? The lack of male vessels in the 'written assemblage' however, is most likely due to the paucity of male vessels in both the Value Village and Dollarware collections, especially given the fact that over one third of the existing male mugs in the Dollarware assemblage and over half the existing male mugs in the Value Village assemblage display writing

Finally, the controversial nature of the gender criteria should be taken into account. While the gender categories are meant to reflect prevalent gender stereotypes in North America, they are in no way indications of the role any of the intended purchasing demographics should play. Additionally, a large number of the classification motifs are fairly ambiguous – savory foods aren't necessarily any more 'male' than sweet foods, but they became a male motif after it was decided that the presence of chocolate (and other such items) on foods was largely female. Motifs such as currency are also debatably gendered, and the fact that the predominance of bills are defined as 'male' has nothing to do with an implied association between men and wealth, but rather because the vessels concerned have male figures on them.

Initially vessels that were solid colours were going to be classified as either male or female based on whether they were cold colours (i.e. green, blue, etc) or warm colours (i.e. red, yellow, orange, etc), but such a scheme was abandoned due to the inherently ambiguous nature of most chromatic colours. However, the classification of pink as female was retained due to the persistent cultural association of this colour with females (even though an association may be outdated). The relationship of domesticated and non-domesticated animals to the two genders was outlined following the same logic, since stereotypically men are associated with hunting and women with domestic life. Such stereotypes were not derived from any existing database, but were rather compiled as a result of the researcher being immersed in the cultural milieu that the mugs were intended to be marketed in. Accordingly, the presence of stereotypical motifs on the Dollarware vessels may reflect the assumptions that their marketers are operating under, rather than the assumptions that their purchasers make in regards to gender. This is less true of the Value Village assemblage, where the provenance of the vessels is less certain as they were deposited at the site by individuals, rather than marketed to the purveyors of the site by specific corporations.

Appendix A: The Gender Criteria

The following motifs and decoration were used as indicators of the gender of dollarware.

Male:

- Male figures
- Savory food
- Fighting figures
- Non-domesticated animals (particularly those that need to be hunted)
- Pursuits stereotypically agreed to be male (i.e. violence, athletics)
- Currency (except for \$20 bills with the Queen on them!)

Female:

- Female figures
- Anthropomorphized animals (this extends to stuffed animals)
- Sweet food
- Harvest/Fertility motifs (i.e. Flowers and fruit)
- Solid pink
- Symbols expressly affiliated with emotion (Hearts fall into this category as long as 'Happy Valentine's Day' is not expressly written on the cup)
- Domesticated animals (Be careful about rabbits – could be a holiday motif masquerading as a domesticated animal!)
- \$20 Canadian mugs.
- Pursuits stereotypically agreed to be female (i.e. cooking, care of children)

Neutral:

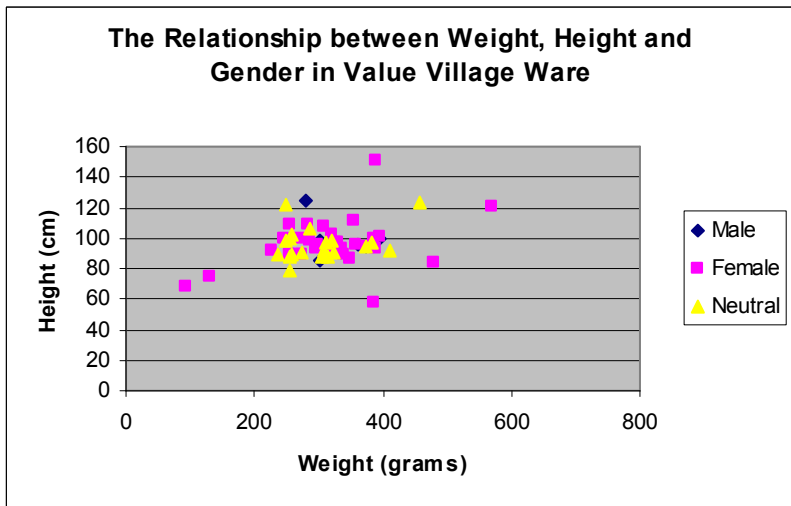
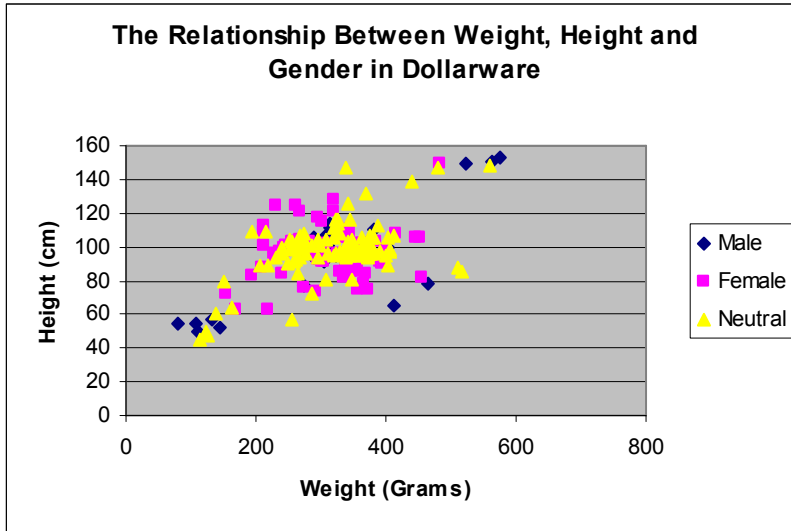
- Geometric patterns (unless they are entirely in cold or warm colours)
- Holiday or festival motifs (i.e. birthdays, Christmas, Valentine's day)
- Motifs involving coffee
- A lack of colour (black, white or grey vessels).
- Nationalistic motifs.

Appendix B: The Gender Composition of Individual Dollarware Assemblages

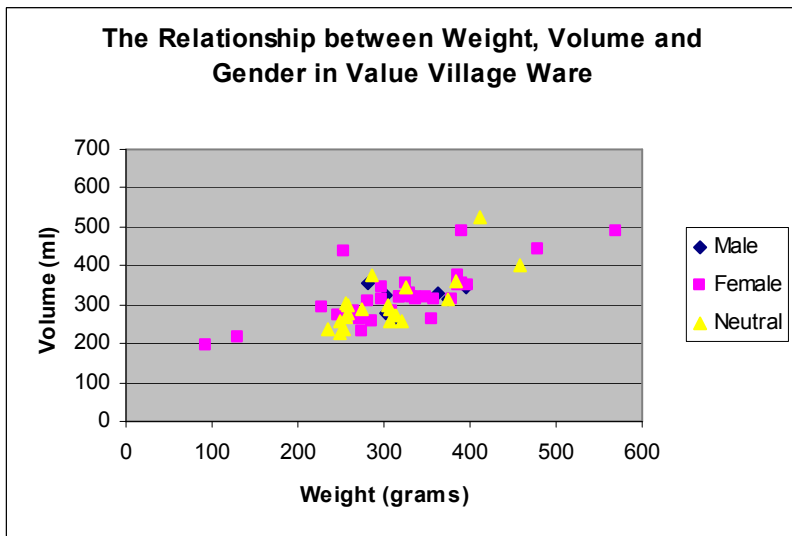
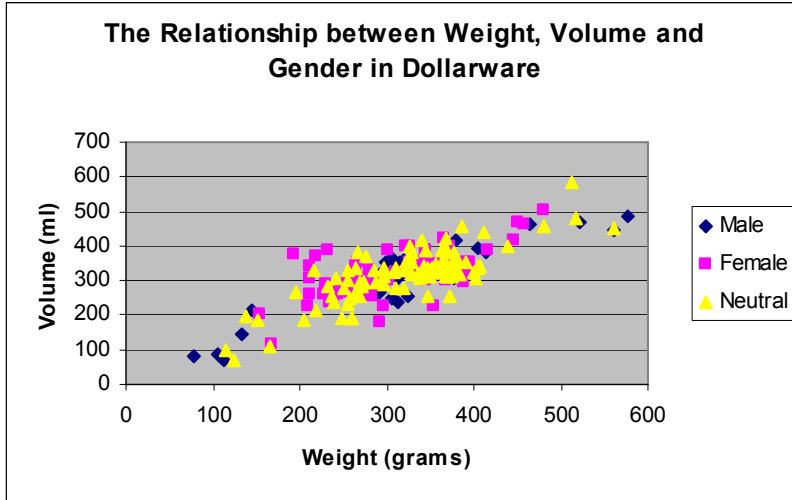
Assemblage	Neutral	Female	Male
A	65%	15%	20%
B	55%	25%	20%
C	30%	50%	20%
D	50%	35%	15%
E	60%	25%	15%
F	24%	57%	19%
G	75%	0%	25%
H	0%	83%	16%
I	55%	25%	20%
J	50%	35%	15%
K	71%	24%	5%
L	63%	38%	0%
M	25%	65%	10%

Appendix C: Correlations between physical properties of Dollarware and Value Village Ware

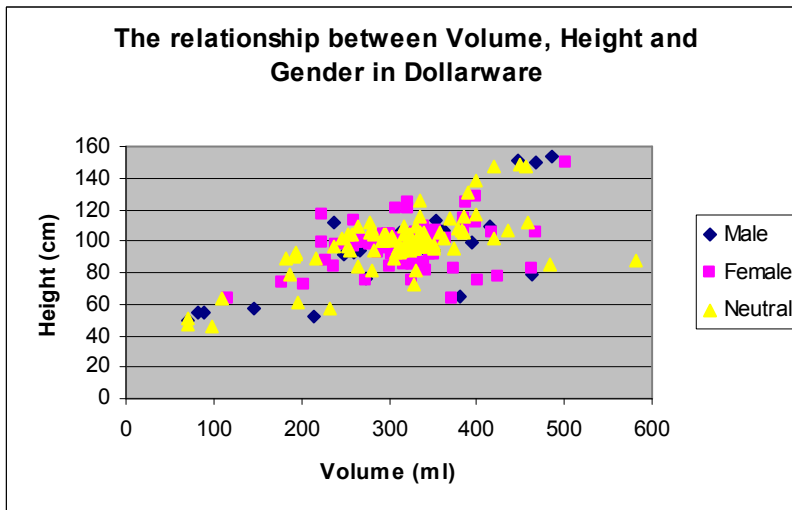
(i) Weight and Height

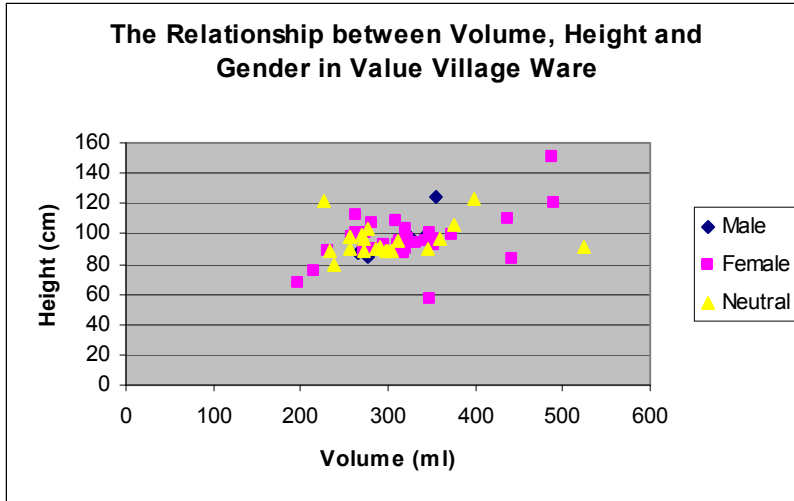


(ii) Weight and Volume



(iii) Volume and Height





Appendix D:

(i) Dollarware values for chi-squared test.

	0-3	4+	Total
Male	23	11	34
Female	47	36	83
Total	70	47	117

(ii) Value Village values for chi-squared test.

	0-3	4+	Total
Male	7	0	7
Female	17	17	34
Total	24	17	41