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The Valuation of Antique Silver Using a Weight Valuation Methodology

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THE VALUATION OF ANTIQUE SILVER
USING A WEIGHT VALUATION METHODOLOGY

Anthony Peter Kelson, III, B.A.

An Abstract Presented to the Faculty of the Graduate
School of Lindenwood College in Partial
Fulfillment of the Requirements for the
Degree of Master of Valuation Science

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The thesis of this paper is that a weight valuation methodology is an accurate and viable method for the valuation of all types of silver plate. This includes antique and/or artisan made silver. The weight valuation methodology works by dividing the market sale price of a work of silver by its weight. This yields a price per ounce. By subjecting a sufficient number of comparables to this process, it is possible to derive an average price per ounce for any particular group of silver objects. This provides the appraiser with a base price to which additions or deductions can be made in value, according to standards of evaluation.

Prior problems in using a weight valuation methodology to value silver were the result of an improper application. Applying the method to the scrap/melt value of silver does not reveal useful information about the market value of a silver object. Using examples of antique/artisan made George III tankards, the paper demonstrates that when the method is properly applied to the market value of a silver object, it does yield appropriate and useful information about market values. This information is expedient for appraising silver.

The paper provides standards for using a weight valuation methodology to value antique and other types of silver. These standards serve as a check and balance to the values obtained, and allow the appraiser to

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- 1 -

recognize and eliminate misleading aberrations.

It concludes with suggestions for a statistical study to standardize silver evaluation. The paper maintains that a weight valuation methodology used in conjunction with a statistically tested and standardized approach to silver evaluation will become the primary and definitive system of silver appraising.

THE VALUATION OF ANTIQUE SILVER

USING A WEIGHT VALUATION METHODOLOGY

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A Culminating Project Presented to the Faculty of the
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COMMITTEE IN CHARGE OF CANDIDACY:

Arlene Taich, Ph.D, Provost
          Chairperson and Advisor

Adjunct Professor Tish Soucy, MVS

Richard Wright, MVS

DEDICATION

Domini Animi grate et amanter hoc opus dicatur.

This work is also affectionately dedicated to my parents, Anthony and Culla Kelson whose love and encouragement made this possible.

And dedicated to the beloved memory of my friend
Charan Singh.
Cum Deo ridebimus aliquando.

ACKNOWLEDGMENTS

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TABLES

I. INTRODUCTION.

There exists a boiling controversy at the center of silver appraising. A controversy that has split the appraisal of silver into two different camps. A controversy that centers around weight and its affect upon value. On the one side are appraisers and dealers who believe that all types of silver can be valued according to their weight using a weight valuation methodology. On the other side are appraisers and dealers of antique or artisan made silver. They maintain that weight has no impact on the value of antique or artisan made silver. Since weight has no impact on value, silver cannot be valued according to its weight.

To this point the dispute has been based upon emotion and self interest rather than documented fact. There has been no concerted effort to address the issue and attempt to resolve it one way or the other. This paper will do so.

This paper will show that weight is a legitimate factor of silver value along with such other factors of silver value as beauty, rarity, and durability. It will give statistical, logical, historical and market proofs to demonstrate this. It will give a weight valuation methodology for the valuation of antique and/or artisan made silver; and demonstrate its effectiveness in

valuing antique artisan made George the III silver tankards. This paper will show that a weight valuation methodology can provide the appraiser with a value based upon actual sales data of market comparables rather than upon dealer asking prices. In effect, it will provide the appraiser with an approach to silver appraising that is accurate, viable, and accessible.

II. HISTORY AND REVIEW OF LITERATURE.

EVALUATION LITERATURE.

A vast amount of published material exists on the evaluation of silver. Evaluation is the study of the nature or quality of an item. In other words, the evaluation of silver has to do with the history, design, and condition of a piece of silver. It assesses, judges or measures the qualitative and the quantitative aspects of a piece of silver. The evaluation of silver does not entail nor require a value estimate. This is the province of valuation. Valuation is the process of estimating the market value, insurable value, or other properly defined value of a piece of silver as of a given date. (Appraisal of Real Estate 12).

VALUATION LITERATURE.

The focus of this paper is limited to the valuation of silver. Unfortunately, little published material exists on silver valuation. The one primary published work on the valuation of silver is by John Luddington. In his book Starting To Collect Silver, Luddington attempts to give a basic methodology for valuing silver using the example of a George III coffee pot weighing 30 oz. (Table 2A).

Luddington's approach begins with evaluation. That

TABLE 2A

"The next useful step is to attempt to put a cash value on quality, though we will be working only on broad approximations. Let us assume that a George III coffee pot of 30 oz. is worth £3,000 and that its quality is perfect in every respect. Below, I try to estimate how the figure of $3,000 is arrived at, supposing scrap silver to be worth £10 per ounce, this being a convenient rather than a realistic figure."

		(Percentages of value)*
Melting value of the coffee pot	300	(10%)
Beauty, design and craftsmanship	800	(26.6%)
Superb patination	600	(20%)
Brilliant marks	625	(20.8%)
Very satisfactory weight for size	315	(10.5%)
Fine contemporary coat of arms	210	(7%)
Exceptional balance	150	(5%)

	£3,000	

From: Luddington, John. Starting to Collect Silver, , Woodbridge, Suffolk: Antique Collectors' Club, 1988. 109.

* Percentages of value were added for the purposes of this paper and do not appear in Luddington's original work.

is, it begins with an examination of both the qualitative and quantitative attributes of a George III coffee pot (Table 2A). Luddington does not use the terms qualitative and qualitative, nor does he make such a distinction. Quantitative and qualitative attributes are the subject of evaluation. His approach to value is intimately tied up with evaluation. Luddington recognizes, as all good appraisers do, that a correct valuation is dependent upon a correct evaluation.

The first attributes, or factors of silver value that Luddington gives are qualitative, i.e. relating to quality. These consist of judging the "beauty", "design", "patina", "brilliant marks" (crisp hallmarks), "condition", etc. (Table 2A). For Luddington, these attributes comprise the major portion of a silver item's value; approximately 90%. The second area is quantitative and relates to the object's weight. This comprises 10% of the overall value. Luddington ties this value directly to the current spot price of silver. He correctly points out that the value of any item of silver is never less than its meltdown or scrap value (Table 2C, #1).

PROBLEMS WITH LUDDINGTON'S METHODOLOGY:
INTRODUCTION.

There are crucial problems in Luddington's

methodology that must be looked at. First of all, he fails to adequately state the factors affecting both quality and value, and cogently rate them. His standards of evaluation conflict. Because his standards of value conflict, he fails to provide a rationally structured system of standards upon which deductions in value can proceed. The deductions he gives are inconsistent, conflicting, and confusing. There is no rational check and balance evident. Secondly, although he provides a base price in his valuation examples, he fails to provide a workable method of valuation through which an appraiser may derive a base price. One has to assume that his base price of £3,000 is based upon comparables. But he does not say. The reader is left with the opinion that the base price of £3,000 for a "perfect" George III coffee pot is one which Luddington, as a experienced dealer, would think it should sell for. Unfortunately, the base price Luddington gives is hypothetical, and must be accepted as a given. Without a methodology to determine the base price, his approach to valuation is limited in its usefulness to the appraiser who is not a dealer. In short, there are problems with both Luddington's approach to evaluation and valuation.

PROBLEMS WITH LUDDINGTON'S APPROACH TO EVALUATION: INCONSISTENT STANDARDS OF QUALITY OR VALUE.

As mentioned before, a good valuation is dependent upon a good evaluation. Although Luddington provides an extensive series of deductions off a base price for defects in quality (Table 2C), he fails to adequately state and rate those attributes of quality and their values into rational and cogent categories. For example, in listing attributes of quality (factors of value), he gives 6 from the dealers perspective and 5 from the collectors (Table 2B). Moreover, the two lists are not similar, i.e. "crispness of design" versus "crispness of ornamentation". Where the dealer looks for "beauty and outstanding design", the collector looks for "beauty and patination (synonymous where silver is concerned)" (109). The point is that in a rational or valid grading system the attributes of quality would be the same for both the dealer and the collector. Even if dealers and collectors have legitimate differences of viewpoint, a rational system of grading will be consistent and yet account for each parties concerns within one framework.

THE PROBLEM OF PATINA:
AN INCONSISTENT DEDUCTION FOR QUALITY.

An example of this confusion can be seen when Luddington begins to put a cash value on the quality of patina. Here he separates beauty and patina as being two distinct factors of value (Tables 2A & 2C).

TABLE 2B

LUDDINGTON'S ATTRIBUTES OF QUALITY.

"I will list the attributes of quality and place them, first in the order of preference that I think an experienced dealer considering purchasing for stock would rate them, and secondly for an experienced collector (or dealer) forming his personal collection.

Dealer

1. Beauty and outstanding design.
2. Brilliant marks.
3. Crispness of design (if applicable).
4. Unspoiled patina.
5. Good weight for size.
6. Balance.

Collector

1. Beauty and patination (synonymous where silver is concerned).
2. Brilliant marks.
3. Crispness of ornamentation (if applicable).
4. Good weight for size.
5. Balance."

From: Luddington, John. Starting to Collect Silver, Woodbridge, Suffolk: Antique Collectors' Club, 1988, 109.

Previously he stated that they were synonymous; at least for the collector (Table 2B).

WHAT IS PATINA?

According to Newman, patina is "a permanent surface blur resulting from numerous shallow scratches." He goes on to state that an artificial patina can be produced with acids or electroplating (An Illustrated Dictionary of Silverware 235). Patina has to do with the appearance of the surface of the metal. It is not only a matter of minor wear, e.g. "numerous shallow surface scratches" but also a matter of coloration or tint. The surface scratches contribute as much to the tint as the gradual oxidation of the metal.

In Table 2A, Luddington lists the individual qualities and their values as they apply to the subject George the III coffee pot in "perfect" condition (109 and Table 2A). These values have been converted into individual percentages of the overall value of £3,000.00 for greater ease of analysis. Patina is listed as comprising 20% of the value of the "perfect" sterling coffee pot (109). The other 80% of the value is divided among the attributes of "beauty", "brilliant marks", "melt value" or weight, etc. Yet in his list of deductions (Table 2C), Luddington states poor patination can result in a deduction of up to 60% off the overall value of a similar George III coffee pot of

TABLE 2C

"1. No combination of faults to exceed a total of £2,700" (i.e. deductions cannot exceed 90%, or the melt/scrap value of the silver). (Luddington 110).

"List of deductions (from £3,000)
Visible repairs....................up to £2,500   (83%)
A weak patch...   ....up to £2,200 (73%)
Rubbed hallmarks...................up to £1,500   (50%)
Absence of all hallmarks, but with
  contemporary, identified coat of
  arms or crest.....................about £1,300   (43%)
Electroplated, concealing repairs..about £2,000   (66%)
Extensive later decoration or
  de-chasing of such decoration.....about £1,800   (60%)
Indifferent design and crafts-
  manship...........................up to £1,400   (46%)
Poor patination....................up to £1,800   (60%)
Marks missing from lid...   .....about £ 500   (16%)
Poor weight for size...............up to £1,500   (50%)
Later initials, monogram or
  heraldic device..................up to £1,400   (46%)
Poor balance.......................up to £1,200   (40%)
Later handle...   ....about £ 250   (8%)

   Examples of comparing the price difference between the specimen coffee pot, valued at £3,000, with other similar coffee pots:

Example 1
Marks rubbed but decipherable..........deduct £1,400
Slight antique repair..................deduct £   300
Later crest but in contemporary style -
   20% of say £500......................deduct £   100
Later handle - 20% of £250.............deduct £   50

                              Total deductions £1,850

Value of coffee pot therefore £3,000 less £1,850 equals £1,150."

From: Luddungton, John. Starting to Collect Silver, Woodbridge, Suffolk: Antique Collectors' Club, 1988, 110-111.

Bracketed comments on #1 and bracketed percentages of value were added for the purposes of this paper, and are not original to Luddington's text.

lesser quality. This is inconsistent. If patination accounts for 20% of the overall value of a "perfect" silver object, it is only rational to assume that the deduction for poor patination cannot exceed 20% of the overall value. It also makes no sense that the deduction for patina (up to 60%) should be greater than the deduction for poor or "indifferent design and craftsmanship" which is only up to 46% (Table 2C). The question is, what is more important: the craftsmanship and design, or the tint of the metal? It is similar to saying that the soot and discolored varnish on a painting has more value than the painting itself. This is not rational. However, it does betray a prejudice for patina that is more common in the English silver market than in the American (Weller, 28 June. 1991).

The problem with Luddington's method of valuation is that it is not complete or tested. He honestly tries to give some account of how silver is valued. The problem is that he stops short of fully developing and testing his method. Thus, there are areas that are inconsistent, undeveloped, and unanalyzed. The argument could be made that Luddington believed that each silver object has it's own unique combination of qualities that comprise it's value. Design might comprise 20% of the value, patina 60% and crisp hallmarks 10%. In this case, there is a floating scale of quality factors affecting value; the percentages adding up to 100% of

the price of the object. Some might maintain that there is nothing wrong with this. Floating percentages allow a more accurate assessment of qualities affecting the overall value. This is true and there is nothing wrong with this if they operate within set standards. Every successful methodology of evaluation and valuation has limits, standards, or guidelines that are rational (e.g. deductions for patina are not greater than deductions for design and craftsmanship), consistent (if perfect patina comprises 20% of the value, then imperfect patina cannot remove 63% of the value), and tested. Even if there is a floating scale of inconsistent percentage deductions within varying standards of quality, there is one standard or factor of quality and value that remains constant in Luddington's system; and that is weight.

THE IMPORTANCE OF WEIGHT IN LUDDINGTON'S APPROACH:
THE QUANTITATIVE FACTOR OF VALUE.

What is important about Luddington's approach from the viewpoint of this paper is the acknowledgment of weight as a factor of value (109). More importantly, it can be said to be the foundation of an object's value. Even if it is poorly or well made. Ultimately the value of a silver object will always at least be the weight of the silver (Table 2A , 2C, & 110). Moreover, any deduction for a deficiency in the quality of the silver

object can never take the value below the scrap value of its silver weight (Table 2C). If we accept this as true, then weight becomes the most consistent, measurable, unchanging attribute of any silver object's value. What remains is to test it.

LIMITATION OF WEIGHT AS A FACTOR OF VALUE IN LUDDINGTON'S APPROACH.

If we examine Table 2A more closely, an interesting feature presents itself for consideration. A feature which has done much to cause the trade to dismiss weight as a factor of value, and as a way of valuing silver. According to Luddington's example, the value of a fine George III coffee pot is £3,000.00. The melt value of the silver is £300.00. It should be pointed out that Luddington notes that these are hypothetical figures. Hypothetical or not, they reveal a relationship (although not stated) between the melt value of the silver, i.e. it's weight, and the value of the overall piece. In this instance, the overall value of the silver coffee pot is approximately 10 times it's silver weight value. Furthermore, if the monetary values comprising the overall £3,000 value are broken into percentages (Table 2A), it would appear that Luddington is in fact giving us at least one constant in the overall valuation of a piece. That is, the weight will amount to 10% of the overall value of a

fine piece.

THE PROBLEMS WITH USING WEIGHT AS A FACTOR OF VALUE IN LUDDINGTON'S APPROACH: A TEST.

The problem with Luddington's use of silver weight as the basis of value is that it is of limited use in developing a per ounce method of valuation. It is clear that Luddington never intended to use such an approach or method. Yet he seems to implicitly imply this as a possibility. For example, if the overall value of a "perfect" George III coffee pot is approximately 10 times its melt/scrap silver value (Table 2A), then it would be reasonable to assume that whatever the price of the silver market, the value of the coffeepot should rise and fall accordingly. In short, we have a simple per ounce method of valuation. The question is does it work? What is the effect of sporadic silver markets on the accuracy of the method? This should be tested to see if it does work. If it does not, the question should be asked, why not?

Today silver is running around $4.50 per oz. (July 15, 1991). It is predicted to drop even lower. Based on the current market, the coffee pot would have a melt value of $124.87 or approximately £75.00 compared to the £300 figure Luddington uses. If we multiply this current figure by 10, we get a value of £750.00; compared to the £3,000.00 value given by Luddington in

1984. In 1989, comparable George III coffee pots were going at auction around £4,000. (Miller 476. Value of a 34 oz. George III coffee pot). The spot price of silver during 1989 was ranging around $5.00 per ounce. Assuming it was $5.00 per ounce, then this comparable 34 oz. George III coffee pot would have a melt value of $157.25 or £89.65. It is evident that despite the decrease in the price of silver from £10.00 to approximately £2.85 (1991), comparable George III coffee pots actually increased in value since Luddington wrote his work. So this method would fail in so far as it cannot determine the present market value. It fails because it relies upon the melt value of the silver, which is tied to the silver commodity market price, as being the foundation point from which the ultimate market value for a work of silver can be derived.

Such a methodology would work well in a stable silver market. Indeed, in the 1920's and 1930's, this methodology was employed quite successfully by appraisers, who were also dealers, due to the stableness of the silver market (Weller). This was a result of the fact that silver and gold were monetary metals with a fixed and constant rate of exchange. Therefore, weight was a more substantial factor of value than today (Weller). Today gold and silver are traded as commodities like wheat or pork bellies.

Their values are not constant, but fluctuate, sometimes dramatically, according to the demands of the commodity market.

This particular weight approach to value fails because it is founded upon the assumption that the value of silver will remain constant. The method may even continue to function with reasonable accuracy if the value of silver increases. However, it manifests its own inadequacy in the light of decreasing silver prices and increasing demand. Such is the case with the market for antique and manufactured silver today. In other words, the approach fails to account not only for fluctuating silver prices but also for the factor of desirability in the market. A factor that has become increasingly important within the last fifteen years as more and more newly knowledgeable individuals begin to compete for the fewer fine pieces. The silver trade also recognizes the inadequacy of such a weight methodology tied to the spot silver price on the commodity market. For this reason alone, many appraisers and dealers dismiss the attempt to value wrought silver using any weight methodology at all. Some even feel there is no need for such an approach. The comparison approach is sufficient (Weller).

As the result of the failure of this approach, or use of a weight methodology, there is strong opposition in the silver trade towards the consideration of weight

as a value factor at all. Michael Weller of Argentum in San Francisco, California believes that weight has little or no bearing in the overall valuation of a silver object. He stated that weight is merely a helpful indication of what Luddington would call "good weight for size" (Weller). Yet Mr. Weller is not alone in this contention. Ms. Marcia Mayo of Sotheby's and Ms. Linda Waters, formerly of Christie's, also share this viewpoint. Weight is perceived as having no ultimate use in determining the value of a piece of antique silver. Therefore, it is not sufficient to allude to Luddington's inclusion of weight as a factor of value. It will also be necessary to prove it (vide. Section III).

THE IMPORTANCE OF WEIGHT IN VALUATION:
A NEW APPROACH.

The failure of a weight valuation methodology derived from Luddington's approach does not negate the importance of weight to the overall value of a silver object. Nor does it exclude the possibility of valuing silver on a per ounce basis; and doing so with a reasonable amount of accuracy. What is needed is a different approach to using a weight methodology. An approach that does not inflexibly bind the use of a weight valuation methodology to the commodity market price of silver. The methodology should allow the

factor of weight to reflect how all the factors of value in a silver object are manifested in its market price. In this new weight valuation methodology, weight should reflect the silver price as well as reflecting and expressing all the factors that comprise value. Value in the new weight methodology is no longer tied solely to the spot silver price. Thus freed, it can take on the function or ability of reflecting the market price. It can move and fluctuate with the market. It can serve as a reasonably reliable indicator of the current market value for the purposes of appraising. The key to this weight valuation methodology lies in the ancillary literature describing the current methods used to value both contemporary gold jewelry and modern silver flatware.

ANCILLARY LITERATURE.
THE VALUATION OF GOLD JEWELRY USING A WEIGHT METHOD: A COST APPROACH TO VALUE.

Valuing contemporary gold jewelry according to the weight of a piece is common practice in the jewelry industry. One of the the largest mounting houses in the wholesale jewelry trade, Stuller Settings, sells their finished mountings according to a pennyweight price (Tables 2D & 2E). The method works in this fashion. We have an example of a 14k yellow gold ring that weighs 3.0 pennyweight. There are 20 pennyweight to an ounce

Table 2D

5336
15 MM
3.43 DWT 4

5337
16 MM
3.44 DWT 5

5338
15 MM
3.97 DWT 4

5339
12 MM
3.34 DWT 4

5340
11 MM
4.84 DWT 4

5152
18 x 12 MM
2.23 DWT 5

All weights are approximate,
based on 14K semi-finished castings.

5380
22 MM
4.70 DWT 5

5356
22 MM
2.89 DWT 4

5164
15 x 12 MM
1.98 DWT 4

5001
22 x 12 MM
3.38 DWT 5

5353
14 MM
2.77 DWT 5

5354
22 MM
5.25 DWT 5

5350
23 MM
3.83 DWT 5

5332
16 x 11 MM
4.47 DWT 5

198

Stuller Settings, Inc. Lafayette, LA
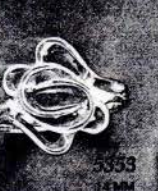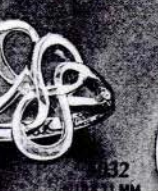
STULLER SETTINGS, INC.
Price List - Effective November, 1989
PRICES SHOWN ARE NET (YOUR COST) AT $400 GOLD

GENERAL INFORMATION

This price list is effective November, 1989 and supercedes all previous lists. All prices shown are net (your cost) at $400 gold, and are subject to change without notice. Actual prices at time of order will be calculated on the current gold market.

FINDINGS

Findings are priced by the piece with quantity breaks as indicated. Casting grain, stocks, solders, wire and gold stamping are sold by weight.

All cast findings can be sold by weight plus a casting charge per piece for quantities of a dozen or more in the same series, color, karat and size. To calculate prices, use the weight shown in the price list and the semi-finished mounting price formula shown below, plus labor per piece.

MOUNTINGS

All cast mountings are available as ready-to-set finished pieces or as tumbled semi-finished castings that require minimal labor to finish. Finished mountings can be ordered one piece at a time; semi-finished castings require a minimum order of three pieces that can be mixed by style (series). All stated weights are approximate, and subject to change without notice.

All the information needed to price a mounting is shown in the catalog under each mounting. For ex– ample, information under the mounting might read:

```
Fancy Stone Size ─────────────────────────── Stock #
                              4216
Melee Stone Sizes ───────────  10 x 8
                                         ── Non-Stock
Semi-Finished Weight ──────  3-.03        (Must be
                            2.54 DWT 6* NS  made to order)

Casting Labor for                       ── Assembled Piece
Semi-Finished in Dollars ──
```
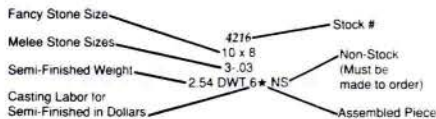
FINISHED CAST MOUNTINGS

Finished mountings are sold by weight, with a $3 finishing labor charge. There is an additional $5 labor charge if assembled (indicated with an asterisk [*] or cast in white gold.

Examples of net (your cost) per-penny weight prices for 14K yellow finished pieces are illustrated below:

If gold is	$400	$425	$450	$475
Net cost is	$20.88	$22.19	$23.49	$24.80

Per-pennyweight costs can be calculated at any gold market using the formula and factors shown below:

Gold Market X Factor = Your Cost/DWT

Karat	Factor	Example:
14K	.0522	$400 X .0522 = $20.88 per DWT
10K	.0404	$400 X .0404 = $16.16 per DWT
18K	.0798	$400 X .0798 = $31.92 per DWT

Note: Please add $5 labor to the total cost if the mounting is assembled or cast in white gold.

SEMI-FINISHED CAST MOUNTINGS

Semi-finished castings are sold by weight with a casting labor charge per piece. Casting charges are shown after the weight of the mounting in our catalog. If a semi-finished casting contains a die-struck part, the pair will be priced separately as a finding.

Examples of net (your cost) per-pennyweight price for 14K yellow semi-finished castings are illustrated below:

If gold is	$400	$425	$450	$475
Net cost per DWT	$15.80	$16.79	$17.78	$18.76

Per-pennyweight costs can be calculated at any gold market using the formula and factors shown below:

Gold Market X Factor = Your Cost/DWT

Karat	Factor	Example:
14K	.0395	$400 X .0395 = $15.80 per DWT
10K	.0290	$400 X .0290 = $11.60 per DWT
18K	.0544	$400 X .0544 = $21.76 per DWT

Note: Please add the casting labor charge to the total cost of the mounting.

NOTE: Weights shown in the catalog are for 14K semi-finished pieces; to estimate the approximate difference in weights for other karatages, subtract 15% for 10K and add 19% for 18K. Finished pieces will be approximately 10% lighter than semi-finish pieces.

PAGE 4,5 - STOCK, SOLDER, GRAIN, AND ALLOY
FACTOR X GOLD MARKET = YOUR COST

Fine Gold (TERMS - NET)
Quantity	Factor	$/DWT @ 400
1-59.9	.0520	20.80
60+	.0513	20.52

Fine Silver (TERMS - NET)
Quantity		Factor
1-99.9		.0755
100-399.99		.0602
400-		.0574

Casting Grain
Qnty.	14kFctr	DWT @ $400	10k Fctr	18k Fctr
1-9.9	.0394	15.76	.0281	.0510
10-19.9	.0365	14.60	.0261	.0471
20-49.9	.0351	14.04	.0250	.0452
50-99.9	.0339	13.56	.0242	.0437
100-499.9	.0326	13.04	.0237	.0425
500+	.0312	12.48	.0227	.0405

Sheet Solder
Quality	1-9.9 Dwt Factor $/400		10-19.9 Dwt Factor $/400		20+ Dwt Factor $400	
10KY Medium	.0298	11.92	.0280	11.20	.0269	10.76
14KY Ultra	.0492	19.68	.0463	18.52	.0444	17.76
14KY Super	.0410	16.40	.0386	15.44	.0370	14.80
14KY Easy	.0409	16.36	.0384	15.36	.0369	14.76
14KY Hard	.0403	16.12	.0379	15.16	.0364	14.56
14KW Easy	.0412	16.48	.0387	15.48	.0372	14.88
14KW Hard	.0415	16.60	.0388	15.52	.0375	15.00
18KY Hard	.0509	20.36	.0481	19.24	.0462	18.48
19KW Hard	.0538	21.52	.0503	20.12	.0486	19.44

Stock, Plate, Wire, Stampings(Discs)
Quantity	14K Factor	Dwt/400	10K Factor	18K Factor
1-4.9	.0398	15.92	.0287	.0517
5-9.9	.0383	15.32	.0277	.0498
10-19.9	.0369	14.76	.0266	.0480
20-39.9	.0354	14.16	.0256	.0461
40+	.0339	13.56	.0246	.0434

Alloy
Quantity	Yellow Cast/Dwt	Yellow Roll/Dwt	White Cast/Dwt	White Roll/Dwt
1-99.9	.32	.34	.22	.26
100-199.9	.30	.32	.20	.24
200+	.28	.30	.18	.22

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of gold. For the purposes of this example, the current gold market is hypothetically $370.00 an ounce. 14k gold is 58.5% fine gold and 41.5% alloy. At $370.00 gold, 14k has a melt/scrap value of $10.79 per pennyweight. Thus, the melt/scrap value of this 3.0 pennyweight ring would be $32.37.

Stuller does not sell this ring for melt. Just as Tiffany does not sell its sterling silver flatware or hollow ware for melt. In the first place, Stuller must pay a figure slightly higher than melt just for the casting gold to make the ring. Then there are the labor charges, and the cost of doing business, as well as profit that must be reflected in the final price of the ring to the jeweler. Factoring in all these variables on the price of each ring could be a momentous, confusing and costly task. Yet Stuller handles it very simply. The ring is sold at a pennyweight price to the jeweler based on a formula that takes into account any rise or fall in the gold market, as well as their cost of doing business. In the case of a finished 14k gold ring, the formula takes the spot price times a factor of .0522 (Table 2E). This gives us the pennyweight price Stuller charges the jeweler. One then takes the spot price of $370.00 x .0522 to arrive at the price of $19.31 per pennyweight. In brief, Stuller adds $8.52 to the melt/scrap value of gold to cover the cost of their handling and profits.

Thus, to find the cost of the subject ring, one takes the weight of 3.0 pennyweight x $19.31 to get the final price of $57.93. Additional handling charges for more complex pieces are given as surcharges in their catalog. But even these surcharges can be factored into the overall cost and be broken down into a price per pennyweight. For example, if our subject ring had a $5.00 surcharge, this could be added to the $57.93 to yield a final cost of $62.93. This figure in turn could be divided by the weight of the ring (3.0 pennyweight) to arrive at a per pennyweight price of $20.97.

The notable aspect of this method is that the gold value and most labor charges are accounted for, and expressed through, the factor of weight. That is, the gold ring is valued on a per pennyweight basis. The qualitative elements such as beauty, durability, and rarity, which are the subject of evaluation, are also expressed and accounted for in this price based on weight. In essence, this is a cost approach to value. Such a method is of great use to the jeweler as well as the jewelry appraiser. It allows them to break down the cost of any item of comparable jewelry into a pennyweight factor. This weight methodology enables them to determine how the price of a particular ring compares to other comparable pieces in the market. For example, most custom made designer rings wholesale for an average of $125.00 per pennyweight. Whereas a

manufactured ring by Stuller sells at $19.31 per pennyweight. Even rings mounted with precious stones can be treated in the same manner. Some jewelry wholesalers at the Tuscon Gem Show sell rings mounted with colored stones and diamonds according to a pennyweight price (Buxton). Recently, in a rather unique reversal of this, M.K. Diamonds and Jewelry of Los Angeles has offered rings set with diamonds based on a per carat price (Table 2F). These diamond rings are sold at $795.00 per carat including the gold and the labor.

These examples show that a weight methodology can be very flexible, and can give account for a number of value factors. The reason for this is that the weight valuation methodology is applied to a sale price rather than a scrap/melt price. The key to the successful use of a weight valuation methodology lies in its application to a correct set of figures. If one wishes information regarding market value, the methodology should be applied to actual sale prices instead of current commodity market gold prices. The question that arises is a weight valuation methodology applicable to the silver market, and are there any precedents for doing so? Fortunately, this methodology is not limited to the valuation of jewelry alone. Nor is it restricted in its use to a cost approach to value. A weight valuation methodology is also used in the secondary

Table 2F

silver market, and as a means to determine a market value.

VALUATION OF SILVER FLATWARE USING A PER OUNCE METHOD: A MARKET VALUE.

Table 2G illustrates a current silver buy price list issued to the silver trade by Midwesterling in Kansas City, MO. Each American sterling silver manufacturer and their patterns are listed accompanied by the current price per ounce that the firm is paying. Let us look at two silver flatware patterns for the purpose of comparison.

The first is a rather simple and plain pattern: Candlelight by Towle. The second pattern, which is more ornate and very popular on the market, is Grand Baroque by Wallace. In the first example, the Candlelight pattern by Towle Silversmiths is listed at $7.00 per oz. If one wished to sell a set of Candlelight that weighed approximately 100 oz., the price Midwesterling would pay would be $700.00. On the other hand, Midwesterling would purchase a set of Grand Baroque by Wallace weighing 100 ounces at $16.00 per oz. or $1,600.00 for the set.

Midwesterling sells the silver flatware sets to dealers at a 1.5 markup (Ridley). In the case of Candlelight, a dealer would pay approximately $1050.00 for the sample set, or $10.50 an ounce. Grand Baroque

Sterling Flatware Buy List   9-1-90

Midwesterling   4311 NE Vivion Road   Kansas City, MO   64119
816-454-1990   816-454-1605 fax   Open 10-6 daily, closed Wed, Sun

We are paying the following prices per ounce on complete contemporary sets in
usable condition. Large hollow handles are counted at a full ounce and small
hollow handles at 1/2 ounce. We also buy monogrammed flatware or incomplete
sets for slightly less. No amount is too large or too small; we are even
interested in buying your entire flatware inventory. If you have a
pattern not listed, ask. Prices are subject to change without notice.

ALVIN
8.2   albermarle
7.5   bridal bouquet
7.0   chapel bells
7.0   chased romantique
8.0   chateau rose
7.0   della robbia
7.5   eternal rose
7.5   french scroll
7.0   gainsborough
7.0   mastercraft
7.0   maytime
7.0   miss alvin
7.0   miss america
7.0   modern colonial
8.0   pirouette
8.5   prince eugene
7.0   regent
7.0   richmond
7.0   romantique
7.0   rosecrest
7.0   southern charm
8.1   spring bud
8.2   vivaldi
7.1   winchester

AMSTON
7.0   american colonial
6.0   arcadia
9.0   athene
6.0   champlain
6.2   duncan phyfe
7.5   ecstasy
6.0   georgian bead
6.0   queen mary

CONCORD
6.0   all patterns

DOMINICK & HAFF
10.1 1776
10.1 broad antique
7.0   contempora
7.0   la salle

FINE ARTS
7.0   crown princess
6.8   processional
6.5   romance of the stars
6.9   romance rose
8.1   southern colonial
6.9   tranquility

GORHAM
9.3   alencon lace
7.5   andante
7.0   aspen
10.1 baronial
6.9   blithe spirit
8.3   buckingham
13.2 buttercup
8.5   cambridge
8.5   camellia
8.2   celeste
13.2 chantilly
7.0   chapel rose
12.0 charlotte
7.5   chelsea manor
7.0   cinderella
12.1 classic bouquet
7.0   classique
7.5   dolly madison
7.2   edgeworth
10.0 english gadroon
8.2   epic
7.2   espirit
8.1   etruscan
8.5   firelight
10.5 golden medici
14.0 golden scroll
8.0   gorham plain
10.0 gossamer
7.0   governors lady
7.0   greenbriar
9.0   hispana
7.0   jefferson
11.5 king edward
7.1   la modele
8.0   la scala
10.0 l_____

7.2   spanish tracery
7.8   st. dunstan chased
7.0   st. dunstan plain
6.9   stardust
13.5 strasbourg
8.0   theme
8.1   trilogy
11.0 white paisley
7.1   willow

HALLMARK
6.5   ballad
6.5   ribbon rose

INTERNATIONAL
11.0 1810
7.3   angelique
7.1   blossom time
6.9   brandon
8.0   breton rose
7.0   bridal veil
10.0 brocade
7.2   cameo
7.5   charmaine
7.0   chimes
8.6   continental
7.0   courtship
8.0   crown princess
6.6   crystal
7.2   dawn rose
7.0   deerfield
7.0   desire
7.0   devonshire
6.7   dorchester
9.0   dubarry
7.1   elegance
7.0   elsinore
7.0   empress
7.0   enchanted rose
7.1   enchantress
8.1   fontaine
7.0   gadroon
6.7   georgian maid
7.2   grand recollection

7.1	norse
9.1	northern lights
6.9	nosegay
7.2	old charleston
7.0	old english
6.8	orchid
7.5	pantheon
6.9	patria
7.0	pine spray
7.1	pine tree
7.1	prelude
7.0	primrose
7.1	processional
8.1	queens lace
7.0	radiant rose
7.1	rhapsody new
7.0	rhapsody old
6.9	richmond
12.1	richelieu
7.0	riviera
7.0	romance
7.0	rosalind
7.1	rose ballet
8.1	royal danish
7.0	sculptured beauty
7.1	sedan
7.2	serenity
7.0	shirley
6.8	silhouette
11.1	silver iris
7.8	silver masterpiece
7.0	silver melody
7.0	silver rhythm
7.0	simplicity
6.9	snowflake
7.0	sonja
7.0	splendor
7.0	spring bouquet
7.5	spring glory
7.0	springtime
7.5	swan lake
7.1	thesium
7.0	torchlight
7.1	tradewinds
7.0	trousseau
9.2	valencia
9.2	vision
7.1	wedding bells
11.0	wedgewood
7.1	wellesley
7.0	westminster
7.2	whitehall
7.1	wild rose
7.0	winchester
7.0	windemere

KIRK

10.1	calvert
8.1	cheryl
7.0	cynthia

LUNT

7.0	adam
12.1	alexandra
7.2	american directoire
7.2	american victorian
7.1	avondale
14.5	bel chateau
8.5	belvedere
7.2	bridal lace
7.9	canterbury bell
8.6	carillion
7.0	carolina
11.0	charles II
7.2	chased classic
6.5	chateau
7.5	colonial manor
8.0	colonial theme
7.4	columbine
7.5	coronet
8.0	counterpoint
7.0	courtland
10.1	delacourt
8.1	dresden scroll
7.5	early american engraved
7.2	early american plain
7.0	early colonial
13.4	eloquence
7.2	english shell
7.1	evening rose
7.1	festival
7.5	floral lace
7.3	florentine scroll
7.2	garnett rose
7.5	georgian manor
7.1	granado
6.9	jefferson
7.0	lace point
8.5	lasting grace
7.2	madrigal
8.3	malvern
7.9	mary 2
8.1	memory lane
8.7	mignonette
7.0	modern american
7.0	modern classic
10.1	modern victorian
10.3	monticello
10.1	mount vernon
8.1	nellie custis
7.5	pendant of fruit
7.2	prudence
8.8	raindrop
8.0	rapallo
7.1	regency
12.1	rondelay
8.0	rose elegance
8.1	silver poppy
8.1	spring serenade
8.6	starfire
8.3	summer song

6.9	silverstre
7.1	southern ro
7.2	valenciennes
7.0	vogue

NATIONAL

7.0	intermezzo
7.0	margaret rose
7.0	overture
7.0	princess elizabet

ONEIDA

7.1	afterglow
7.1	american colonial
7.0	ardsley
7.0	belle rose
7.5	boticelli
7.1	damask rose
7.2	dover
7.0	du maurier
7.0	engagement
6.5	first frost
7.0	flower lane
7.0	grand majesty
7.0	grandeur
7.0	guinevere
7.0	heiress
7.2	impressario
7.0	king cedric
7.0	lasting spring
7.0	mansion house
7.0	martinique
7.0	mediterranea
7.0	melbourne
9.0	michaelangelo
7.0	patrician
7.0	reigning beauty
7.0	rubaiyat
7.1	satin beauty
7.0	sentimental
7.0	silver rose
7.1	stanton hall
7.0	twilight
7.2	venetian scroll
7.0	virginian
7.0	vivant
7.1	will o wisp
7.0	young love

REED & BARTON

7.0	amaryllis
11.5	american federal
9.2	autumn leaves
14.2	burgundy
11.0	cameo
7.0	cellini
7.0	cellini engraved
7.0	chambord
9.1	classic rose
7.1	clovelly

agrance
rancis I
french renaissance
georgian rose
grande renaissance
.1 guildhall
0.5 hampton court
7.1 hawthorn
9.1 hepplewhite
7.1 hepplewhite chased
7.1 hepplewhite engraved
7.1 heritage
7.0 jacobean
7.0 jubilee
7.0 la comtesse
7.0 la perle
9.1 lark
7.0 liberty
7.1 majestic
12.1 marlborough
7.0 nancy lee
10.1 old virginia
7.0 oxford
7.5 petite fleur
10.2 pointed antique
7.0 renaissance scroll
8.0 romaine
10.1 rose cascade
11.9 savannah
9.1 silver sculpture
8.1 silver wheat
7.0 sonata
9.1 spanish baroque
7.2 st. george
7.0 st. george chased
7.0 star
10.1 tapestry
11.4 tara
7.3 tree of life
10.1 vienna
7.2 wakefield

ROYAL CREST
6.9 castle rose
7.2 promise
7.0 wild flower

FRANK SMITH
7.1 adrienne
7.1 american chippendale
7.0 bostonia
7.0 classic american
7.0 countess
13.1 federal cotilion
14.1 fiddle shell
14.1 fiddle thread
7.0 georgian garland
6.5 mayfair
10.5 newport shell
8.1 pilgrim
7.5 priscilla

7.6 personna
7.0 princess
7.9 puritan
13.5 queen anne williamsl
12.2 rose
8.0 rose motif
9.0 royal dynasty
16.2 shell williamsburg
7.0 silver surf

TIFFANY & CO.
14.0 broom corn
14.0 chrysanthemum
14.1 clinton
16.9 english king
16.0 faneuil
16.0 flemish
14.0 gramercy
16.0 hampton
16.1 olympian
15.1 palm
14.0 provence
16.0 queen anne
16.7 shell & thread
13.0 st. dunstan
14.0 wave edge

TOWLE
10.1 1690
10.1 1690, engraved
8.0 arcadian
7.3 aristocrat
7.5 awakening
12.1 benjamin franklin
7.0 candlelight
8.0 cascade
10.1 charlemagne
7.1 chased diana
11.0 chippendale
8.1 contessina
8.2 contour
8.2 country manor
7.1 craftsman
8.1 danish baroque
10.1 debussy
7.2 d'orleans
7.1 dorothy bradford
7.1 dorothy manners
7.3 drury lane
11.1 el grandee
7.2 esplanade
8.2 fontana
9.4 french provencial
19.0 georgian
8.0 golden danish baroqu
11.1 grand duchess
9.1 kings
12.5 king richard
7.1 lady constance
8.1 lady diana

7.5 petit point
12.4 queen elizabeth
7.1 rambler rose
10.2 rose solitaire
7.5 royal windsor
7.2 rsvp
7.2 sculptured rose
7.0 seville
8.1 silver flutes
7.3 silver plumes
7.2 silver spray
7.2 southwind
8.2 spanish provincia
7.1 symphony
7.1 vespera
7.2 virginia carvel

TUTTLE
16.1 beauvior
8.1 colonial fiddle
7.1 crest of arden
8.0 feather edge
15.1 hannah hull
8.2 lamerie
16.1 onslow
8.0 windsor castle

WALLACE
8.1 aegean weave
7.1 america
7.1 antique
8.3 berain
7.3 cabot
7.3 carmel
7.3 carthage
7.4 corinthian
7.3 dauphine
7.1 dawn mist
7.0 dawn star
8.1 debutante
7.0 discovery
7.0 eton
7.0 evening mist
11.0 feliciana
7.0 georgian colonial
14.1 golden aegean wea\
16.0 grand baroque
8.1 grand colonial
10.1 grand victorian
11.1 irving
7.0 juliet
7.0 king christian
10.1 la reine
7.0 lady windsor
7.0 larkspur
8.1 lotus
11.1 lucerne
7.0 marie
11.0 meadow rose
7.2 melanie

would sell at $2,400 or $24.00 per ounce. It should be pointed out that this methodology is not unique to Midwesterling. Other major silver dealers such as Silver Gifts of Houston, Texas and Atlantic Silver of Tampa, Florida also use this method. The use of a weight valuation methodology is a common and accepted practice in this branch of the silver trade.

Opposition to this approach might offer the following objection. A weight valuation methodology may be a valid approach in the pricing of current and used 20th century manufactured silverware, and it is a very fine method for jewelry manufacturers to use. But it can hardly account for a unique, one of a kind, handcrafted piece of antique silver by a noted silversmith. It is the position of this paper that it can. Moreover, it is the purpose of this paper to demonstrate that it is possible.

III. THESIS STATEMENT.

Weight is a fundamental basic in the valuation of silver. Silver flatware and hollow ware from any historical period, including artisan made silver, can be valued using the factor of weight. It is possible to value any item of silver on a per ounce basis. This paper will first offer a statistical, logical, historical, and a market proof that weight is a factor of value to serve as a justification for the thesis and its methodology. Secondly, in the fourth section of this thesis, a weight valuation methodology will be applied to a sampling of antique George III tankards to demonstrate the effectiveness of this methodology in valuation.

INTRODUCTION TO THE STATISTICAL PROOF:
IT'S REQUIREMENTS.

In order to offer a statistical proof of weight as a factor of value, it is necessary to identify and describe all the factors of value and their inter-relation. Afterwards a statistical model will be given to demonstrate, as a valid proof, that weight is a legitimate factor of value. That its inclusion here is justified.

The problem with Luddington's approach is that while he gave several standards of quality along with

qualitative deductions, he failed to provide a cogent framework of standards. The result is a conflicting, confusing and incomplete method of grading and valuing (see section II). As they stand, they are not possible to test statistically. Standards are an established measure of quality (Scribner-Bantam Dictionary 888). In other words, this definition presupposes that the factors of quality are first of all known and identified. Secondly, that they can be measured or judged according to a qualitative system of rating. In the field of appraising, this is known as evaluation. Evaluation, like valuation, has a method for accomplishing this. Method is the "established form of systematic procedure ... orderly arrangement, classification, or the like" of grading (569). A correct or valid valuation is dependent upon a correct evaluation. Without a system of standards for evaluation, any method of or approach to valuation is open to question. Therefore, in order to defend this thesis, it is necessary to provide a cogent framework of standards for evaluation. In other words, it is first necessary to state and describe the factors that comprise quality in any item of silver, and which will serve as standards of value. This paper shall draw on Luddington where appropriate for the purpose of continuity.

THE FOUR STANDARDS OF SILVER VALUE.

This paper maintains that there are four standards comprising silver value (Table 3A). These are beauty, rarity, durability and weight. The first three are qualitative in nature. The last is quantitative. For the purpose of this paper, these four standards will be divided into two categories; subjective and substantive. The subjective category is comprised of beauty and rarity. The substantive side is comprised of durability and weight. This distinction recognizes and clarifies that the substantive is more readily measurable than the subjective side. The substantive measurement is more objective since it deals with measurable physical attributes. Whereas the subjective side is influenced to some extent by taste and fashion. The measure of the former (the substantive) is more readily agreed upon than the latter (the subjective). This division into two categories does not conflict with either the qualitative or quantitative nature of each. It is an acknowledgment of a further dimension of these factors and how they function. Let us begin by examining the subjective side.

THE SUBJECTIVE SIDE: BEAUTY AND RARITY.
BEAUTY.

Beauty is "that combination of qualities which is pleasing to the eye..." (Scribner 83). In the Art

TABLE 3A

THE FOUR FACTORS OF SILVER VALUE

QUALITATIVE   **QUANTITATIVE**

SUBJECTIVE   **SUBSTANTIVE**

BEAUTY   **RARITY**   **DURABILITY**   **WEIGHT**

1. Design   1. Age or Circa   1. Wear & it's   1. Weight in oz.
   a. line   2. Maker   measure   2. Satisfactory
   b. form   3. History or   a. crispness of   weight for
   c. balance   provenance   design   size
2. Quality of   4. Availability   b. brilliant
   craftsmanship   in market   hallmarks
   or construction   5. Demand   c. unspoiled
3. Patina or tint   patina
   of metal   2. Damage
                                          3. Presence of
                                             repairs
                                          4. Alterations or
                                             marriages

world, this is also termed as the composition of a piece. A Dictionary of Art & Artists defines composition as "The art of combining the elements of a picture or other work of art into a satisfactory visual whole...". It continues by saying that "a picture (or other work of art) is well composed if its constituents... form a harmony which pleases the eye..." (Murray 89).

Beauty, as it applies to silver, is comprised of three constituents or attributes. They are design, quality of craftsmanship or construction, and patina. The first is design, which is comprised of harmony of line, form, and balance. Balance means the "instinctive approval of line and ornamentation" (Luddington 110). The second attribute is the quality of the craftsmanship or construction. The third attribute is patina.

The quality of beauty is really an aesthetic judgment. As such it is perhaps the most subjective category of all. To judge quality is not solely a measure of taste. It often is one of experience. It requires great familiarity with the breadth of one's subject. For example, in judging English Neo-classical silver, one should be knowledgeable of the work of Robert Adam, as well as the ideals of Greek classical beauty as perceived by the Romans. One should also be familiar with both the successful and unsuccessful

compositions of English and Continental silversmiths of the age. But as many silver appraisers and dealers would agree, the judgment of beauty often entails more than just a historical knowledge of the subject and a familiarity of fine examples. Ultimately, it depends on an eye for beauty and a feel for the craft. In other words, it entails an aesthetic judgment. A judgment which Immanuel Kant has shown in The Critique of Judgement to be subjective, and therefore, not truly measurable.

> "There can be no objective rule of taste by which what is beautiful may be defined by means of concepts. For every judgment from that source is aesthetic, i.e. its determining ground is the feeling of the Subject, and not any concept of an Object." (75)

RARITY.

The second subjective factor of value is rarity. Rarity has four attributes. They are age or circa, maker, history or provenance, and availability in the market. The first is the age or circa of the piece which refers to when the piece was made. This is also intimately related to the design or style of the piece. The second is the maker. Some makers are more popular in the market than others. This is true even if some of their pieces are not very successful. Their mark may often give strength to the market price. A good example of this are the works of Hester Bateman and her sons. The third attribute is the history or provenance of the

- 25 -

piece. For example, was a particular work of art once owned by a notable individual? The second and third attributes are often influenced by the dictates of fashion.

Recently, a Georgian tankard given to the Duke and Duchess of Windsor as a wedding gift literally sold for 25 times the current value of a comparable (London: Sotheby's Lot #226, 12/14/89). The danger for a piece of silver or any work of art is that if the fashion changes, the value can drop radically. In short, although fashion can add to the value, what is added is subjective. It is in a sense artificial. This artificiality reveals itself when the value is subject to the whims of fashion. For example, the Windsor tankard was sold at a time when there was intense interest in the lives of the Duke and Duchess. The question is: will the Windsor tankard hold its value if it is sold 25 or 50 or 100 years from now? That is, will it still sell for 25 times the value of a comparable? It is doubtful the Windsors will still hold the same charm and fascination as they do now. Like all items with a royal provenance, it is safe to assume that it will still command a premium. But it is also safe to assume that the premium will not be as great as it was in 1989.

The final attribute of rarity is the availability in the market. That is, is this a fairly common piece?

Or is it exceptional for some reason whether due to design or history? On the other hand, is the object, (or its maker, or its previous owner) currently fashionable? Are there enough of them to meet demand?

THE SUBSTANTIVE SIDE: DURABILITY AND WEIGHT.
DURABILITY OR CONDITION.

The substantive category of silver evaluation consists of durability and weight. Unlike the subjective standards of value, these are more easily measured. The reason is that they are more concrete physical attributes. The first is the standard of durability. Durability is synonymous with condition. Condition has four elements. They are wear and its measure, damage, presence of repairs, and alterations and marriages. The first element is wear and its measure. Involved in determining wear are three points Luddington describes: a) "crispness of design," b) "brilliant marks," and c) "unspoiled patina" (109). Luddington also places patina under beauty. Here patina can be translated into the condition of the surface, as well as the tint of the metal due to age. What would be of concern is if there were any dark sulfur patches, deep surface scratches, pitting, etc. In other words, patina would cover anything that may pertain to the surface of the metal excluding dents. Dents would be covered under the second element which is damage. The

third element has to do with the presence of repairs. Included in this would be electroplating to mask any repair. The presence of solder to mask pin holes or pitting. The fourth and final element has to do with the presence of any alterations or marriages. A marriage is where something is added to the silver which is not original to the piece. For example, an English Victorian rococo style handle circa 1840 is added to a genuine French rococo teapot circa 1755.

WEIGHT.

The final standard of value is weight. Included here is not only the weight in ounces, but also what Luddington refers to as satisfactory weight for size. One could object that this latter attribute really belongs either under condition or beauty (e.g. quality of the construction). To a certain extent, one would would be right. The matter of patina is another case in point where it could easily be placed in more than one category. This raises an important point for our consideration. The fact of the matter is that none of these categories of value stand independent of one another. **They are all inter-related in so far as they are used to judge one complete piece.** A work of art cannot be valued as the total of its parts. To do so would be to tear the spirit out of the piece. It would be to ignore the beingness of that special combination

of artist and material into one singular object. The appraiser may examine the quality of those elements that comprise a work of art. But ultimately the work must be valued as a whole. And the elements that comprise it must also be judged by how well they inter-react with one another. Let us take a closer look at the inter-relation of these factors or standards of evaluation as they apply to silver; especially focusing on weight.

Weight can reveal something about condition and rarity. For example, the Italians currently have a great passion for English silver. In the case of Georgian tankards, those pieces which have chased chinoiserie designs go for much more than the plain tankards in the Italian market. Some English dealers have had these old tankards chased in an antique style in order to receive a higher price from the Italians. By the same token, some Italian dealers who buy back these tankards from collectors, and who wish to return the tankards into the English market, will have the chasing removed. It is not uncommon for a tankard to undergo this process several times (Weller). It is only natural that this continued removal of silver will affect the weight as well as the durability. In this case, the lack of a proper weight can serve as an indication of tampering. The thinness of the silver and the absence of a proper patina (condition, quality of

construction, and beauty) will also confirm this.

Weight can also make a statement about rarity. For example, Georgian tankards that weigh approximately 20 plus ounces are more abundant on the market. They were made primarily for the middle class. Usually the workmanship is not as good. On the other hand, tankards that weigh approximately 40 plus ounces were made for the upper classes. As one would expect, they typically exhibit the very fine craftsmanship that particular class would demand and pay for. Just as the nobility were not as numerous as the middle classes, the numbers of these heavier tankards were fewer. Thus they are rarer in the market, and they will often command more money (Weller).

Weight is thought of as a quantitative rather than a qualitative factor. As a result, it is often viewed as something separate, isolated, and dispensable from the qualitative factors of beauty, durability and rarity when it comes to pricing silver. But weight does not stand independent of the other three factors. The two examples cited here suggest an inter-relation with condition and rarity. Furthermore, its inclusion as a standard or factor of value, and the fact that it is inter-related to the other standards, can be proven statistically.

STATISTICAL MODEL: TABLE 3B.

INTRODUCTION TO THE MODEL AND ITS LIMITS.

The statistical model is limited in its scope to correspond with the definition of the thesis. It is the responsibility of this paper to lay down and describe those variables (factors of value) which the literature says have an influence on price. This was done to provide an overview of the inter-relationship of these variables. The sole focus of this statistical model is to prove that weight is a factor of value by showing that weight does have an influence on price. The focus of this statistical model will be on weight and its relation to price. The other three factors of value will not be considered in this model. In this sense, the model serves as a simple pilot study for a greater study. The dimensions for this greater study, which includes the other three factors of value, is outlined in the conclusion (section VI).

WHAT THE STATISTICAL MODEL PROVES.

Table 3B lists 23 comparables of George III tankards taken from Table 4A. The table lists the individual sale prices and weights along with the date on which the silver tankards were sold. These figures were loaded into a computer by Dr. Chris Kukuk for a regression analysis in order to see if weight could predict the variation in price. The underlying assumption is that if weight can predict a variation in

Sale Number	Sales Price	Weight Oz.	Date	Month	Day	Year
1	4,675.00	29.00	91.15	10	12	90
2	5,775.00	24.50	91.15	10	12	90
3	6,600.00	38.00	88.65	4	12	88
4	4,400.00	24.00	88.65	4	12	88
5	4,412.10	32.00	92.02	2	28	91
6	3,571.70	24.75	92.02	2	28	91
7	4,242.00	24.50	90.87	11	1	90
8	3,349.50	32.80	90.87	11	1	90
9	4,670.60	26.00	91.55	10	24	90
10	3,889.60	27.85	91.48	8	27	90
11	2,772.00	23.00	91.10	5	23	90
12	4,134.90	29.85	90.98	2	27	90
13	3,366.00	24.00	90.38	12	14	89
14	5,053.65	30.70	90.05	12	4	89
15	3,122.90	23.25	90.52	8	28	89
16	7,348.00	45.50	90.52	8	28	89
17	3,122.90	25.90	90.52	8	28	89
18	3,306.60	22.95	90.52	8	28	89
19	2,626.85	21.00	90.13	5	24	89
20	3,623.40	26.00	89.38	12	14	88
21	3,623.00	31.00	89.38	12	14	88
22	2,767.10	20.60	88.22	2	4	88
23	4,705.80	27.90	88.22	2	4	88

This is weight predicting Price
The results are statistically significant at better than 0.01
Weight predicts 59 percent of the variation in price
Regression Output:

Constant	−318.025
Std Err of Y Est	790.6177
R Squared	0.587783
No. of Observations	23
Degrees of Freedom	21

X Coefficient(s)	161.3624
Std Err of Coef.	29.48815
F statistic	29.94398

This is date predicting price
The results are not statistically significant
Regression Output:

Constant	90.31485
Std Err of Y Est	1.155785
R Squared	0.000073
No. of Observations	23
Degrees of Freedom	21

X Coefficient(s)	0.001693
Std Err of Coef.	0.043108
F statistic	0.001543

Table 3B

price, then it is also true that weight is related to price. If weight cannot predict a variation in price, then weight has no relation to any of the tankards' values. In showing the relationship between weight and price, the model does not reveal the dimensions of that relation. It merely states that such a relation exists and to what extent. The results of this study were statistically significant. Weight predicts 59 percent of the variation in price in antique George III silver tankards. **Thus, it has been statistically proven that weight is related to price; and if weight is related to price, then it is a factor of value.** What is also significant is that this prediction of price has no relation to the scrap value of the silver. The model was also tested internally for accuracy by attempting to see if the date had any influence on price. The result was statistically insignificant; less than 1%.

LOGICAL PROOF.

Simple logical proofs can be put forward to defend the assertion that weight is a factor of value. For example, if weight is not a factor of value, then weight need not be present in an object. If weight is not present in an object, then there is no object. If there is no object, there is nothing to value.

The immediate objection to this is that it is carried to far. Nonetheless, it is a valid argument. It

is basically the same argument used by silver dealers, but only carried to its logical conclusion. The argument can be approached in a different manner. If the weight of the silver in an object has no value, then it is conceivable that that same object would have the same value if comprised of another medium, such as porcelain or plastic. Of course, this is not true in reality. Nonetheless, it too is logically valid even though it sounds absurd. The problem with each argument is not with the structure of the logical argument. The problem lies with the basic premise of the argument itself; namely the assertion that the weight of the silver has no value. Some might retort that the silver does have at least the value of it's scrap. But to admit to that is to admit that the amount of silver present does contribute to its value. Once that is admitted, even if only on a scrap basis, one is then admitting that weight is a factor of value. Even the literature, i.e. Luddington, admits to this.

HISTORICAL PROOF THAT WEIGHT IS A FACTOR OF VALUE.

In addition to a statistical and logical proof, weight as a factor of value can be proven by two other approaches. The first is an historical proof. The second is a market proof.

SILVER AS A MEASURE OF MONETARY VALUE.

It has been 28 years since silver has ceased to be used as a monetary metal in this country. By 1970, this has been true for most of the countries around the world. Yet one must place this quarter plus century against the millennium when both gold and silver were the universally accepted form and measure of wealth by nearly every nation or people on earth. Whereas gold was the monetary standard for most nations, it was rare and not common enough for wide use and circulation. This was not the case with silver. It was by far the most common monetary metal. It was the most widely accepted and circulated.

> "Latin Christendom had a multiplicity of coinages, but they had this in common: they were, with the exception of occasional pieces made for purposes of ceremony or display, exclusively of silver." (Southern 46).

As a result of this commonalty, in the Middle Ages, a silver penny from England could easily be exchanged for its equivalent in Germany by local money changers. This was because the exchange could be based solely on the coin's weight. The fineness of the coin being already known. Even Luddington has shown that the value of any piece of silver plate is at least the value of its weight. (Plate here refers to a manufactured work in silver. It does not refer to a silver electroplated base metal or Sheffield plate). The same has held true for silver coins throughout most of the course of history. Historically, weight too has always been a

measure of the monetary value of silver plate. The following discussion will show the historical interdependence and relation between silver money whether as coin or as plate; and how the value of either one was ultimately the value of its silver weight.

SILVER AS A MEASURE OF ECONOMIC VALUE.

The use of silver as money can be said to possess two kinds of value. The first is an economic value, and the second is its social value. Prior to the establishment of banks, the use of paper money, and credit; silver, whether in the form of coins or plate (wrought silver), served as money and a store of wealth. Up until the mid 19th century, the currency in circulation was hard currency in the form of gold and silver. There had been a few experiments with paper money, such as in France between 1716 and 1720, which ended in the disaster of John Law's Mississippi scheme with rampant inflation and loss of wealth (MacKay 6-45). Prior to the 19th century, there were few banks as we know them. Accessibility was for the few and not the masses. The lack of a sophisticated banking system also resulted in the lack of the widespread availability of credit which we enjoy in the 20th century. What an individual owned was tangible in the truest sense of the word, i.e. real estate, personal

property, and hard currency. One was also concerned with protecting and preserving it.

In colonial New England, one of the first trades to arrive and prosper was that of the silversmith.

> "Silversmiths found much work to do. Their raw material was primarily coin, melted down and fashioned into objects. In this way, the early colonists provided themselves with a kind of savings security - for it was much more difficult for a thief to dispose of a recognizable object than it was to sell coins" (Fennimore 30).

This particular practice, and this particular role of the silversmith was not restricted to the New World. The period after the English civil war and protectorate, 1660, saw the beginning of a new and great prosperity for the English people. Excess coin was saved by taking it to the silversmith for conversion into plate. By the ascension of William and Mary in 1688, so much coin was being removed from circulation for the purpose of making silver plate that there was a serious shortage of money in circulation. It began to affect minor everyday commerce. Prior prohibitions of the use of coin for plate had been to no avail. The government instituted the Britannia standard in 1697. This required that all future plate had to be of a fineness of .950 rather than the .925 of the sterling coins. This successful act was enforceable because every piece of silver plate made had to be submitted to the nearest assay office for testing and hallmarking before it could be sold.

Since the 14th century (1300 AD), England had a strict hallmarking system with heavy penalties for tampering with silver fineness. Because the nation's wealth commonly circulated from coin to plate to coin again, the process of hallmarking was designed to safeguard the royal and public wealth from debasing by unscrupulous gold and silversmiths. It also served as a guarantee that in any transfer of wealth in the form of plate, the quality was assured. It is probably the first example we have of the attempt to establish a fair market enabling both buyer and seller through the benefit of the hallmark to be equally knowledgeable about the product.

The reason for the conversion of silver coin into plate is quite simple. Silver in the form of coin or money is useful. But what is one to do with the coin or silver one does not need to spend. There were no banks as we know them today. Plate had the advantage of being both useful and beautiful. It could give pleasure until the time arose when the silver it contained was needed for expense. Moreover, plate was easily identified because of its shape, hallmarks, or engraved coat of arms. So it was a deterrent to theft. In the case of estates, it was an easy way to pass on wealth (Watson 64). Even today, silver and jewelry are often quietly divided up among the heirs without being listed in the estate. Thus, as in the past, large amounts of wealth

are quietly transferred without the government's knowledge.

Since plate was often made from coin it should come as no surprise that it often functioned as coin. It could be used for example as a pledge for loans from the pawnbrokers. Prior to the 20th century, pawnbrokers loaned to all classes of people, even kings. For centuries, they were the only place where one could obtain emergency loans. Plate was ideally suited for pledging. Its value was compact, and its form was readily desirable and resaleable. Plate could not only be exchanged for money such as in a pledge. It could also be used as currency for purchasing real estate (64) and for the payment of debts. **The value of the plate was accepted as the value of its weight. This was measured against the weight of a similar amount in coin, since the fineness of the silver was universally established.** In 1630, the Goldsmith's Hall sold or traded off plate in order to rebuild itself (Blair 115). This underscores the importance of plate not only as a form of savings, but also as a form of currency as well. Furthermore, it indicates the circular nature of coin to plate (savings), back to coin again.

> "There was an easy fluidity between the ornaments of a great church or the plate on a great man's table, and the coin into which they could be so easily transformed." (Southern 46)

Thus the Goldsmiths were not the only ones to engage in such a practice. It occurred on all levels of society.

Before the advent of national banks to finance governments short on tax revenues, kings had to draw on their royal plate for funds. In 1611, James the I of England paid his goldsmith £90,000 for new plate which he soon after had to melt down for coin. Indeed, "in the latter part of James' reign the royal collection was not regarded as plate, but as treasure to be melted down, sold, or pawned as occasion demanded" (Penzer 27-28).

SILVER AS A MEASURE OF SOCIAL VALUE OR WORTH.

Plate, being a store of value, also became a measure of social value and worth.

> "The precious metals had a very important place in the Middle Ages, not only in the form of money, but as as a means of display, which itself was a guarantee of solvency.... These essential ingredients of grandeur declared a man's state, proclaimed his credit and were at the same time a reserve of ready capital which was often broken into to pay debts or to raise new loans." (Southern 46).

Plate was not merely functional. It more importantly made a social statement. Because wealth was required to convert one's own wealth into plate (i.e. to pay the silversmith), the number, types, design or magnificence of one's plate made a statement not only of one's wealth, but of one's rank or aspirations in the world. Graham Hood states in his book <u>American Silver</u>, that a teapot could take a silversmith as long as two weeks to make. The cost in labor would be similar to what one

today might pay for a small art object (12). This is one of the reasons why silver spoons from the 15th, 16th, 17th, and 18th centuries are so abundant. These were more readily affordable by most people wishing to put some of their wealth into plate. Thus the type and extravagance of one's plate could make a dramatic statement as to the owner's wealth and status when displayed on a public and social occasion.

Plate was displayed and used on these occasions to impress others. It was not uncommon for people giving a dinner party to go to the pawnbroker and rent plate for the evening. They did so to impress their guests. Pawnbrokers in the 17th through the 19th centuries commonly rented out plate that was in on pledge to them. Occasionally, a fuss was made when the owner of the pledged plate went to a dinner party where the host had rented his pawned plate for the evening (Tebbutt 74). Even if the plate were one's own, one had to exert some care in not going to an extreme to impress the wrong guest. A King to might ask a noble for an exceptional piece of plate that may have surpassed anything in his own possession.

The passion for plate as a status symbol was not limited to the upper class. In 1580, William Harrison wrote that:

> "The farmer thinks his gains very small towards
> the end of his term if he have not ...a silver
> salt, a bowl for wine...and a dozen spoons to
> furnish up the suite." (Honour 19)

So even the humble measured the value of their life's term, and of their own worth, by the possession of plate. Plate not only functioned as savings. It was also intended for display to others. It was used to make a social statement about the worth and value of the owner even of a humble household.

Here one can clearly see that the weight, or monetary and economic value, was intimately tied up with the aesthetic, functional, and social value of the plate. It was a desirable way to store and display wealth. This was an age when wealth and power were meant to be displayed. Furthermore, plate had the advantage of being readily sold or pawned for the value of the silver. If it was an appealing or well made piece, it could be sold for more than its weight value. The owner in this case had at least the opportunity of recovering the cost of fabrication, and possibly even making a profit besides. But ultimately, the value of any plate lay in its weight. In conclusion, from an historical viewpoint, weight was not only one of the factors of a silver plate's value. It was the primary factor of value. It was that aspect of value that could be most readily measured and agreed upon.

THE MARKET PROOF OF WEIGHT AS A FACTOR OF VALUE.

The third approach to establishing weight as a factor of value is a market proof. Ultimately, the

market is the final measure of validity for any valuation methodology. That is, what constitutes a valid proof for any method of valuation would be its use in the market. It is either true in the market place or it is not. True means that its existence or use in the market is a fact. One should not confuse its factual existence as a proof, with whether one thinks its use is right or wrong. A market proof is a question of what is. The fact that it exists and is used in the market attests to its truth; to its reality or validity. Its truth is not a question of opinion over its accuracy or degree of accuracy. If it was not accurate to a satisfactory and useful degree, the market would cease to use it.

THE THREE LEVELS OF THE SILVER MARKET.

This paper maintains that there are three different functioning levels of the silver market. They are the market for new plate, used plate, and antique or artisan made silver. The first one is for new plate. This market is made up of manufacturers, wholesalers, and retailers selling newly manufactured silver flatware and holloware to the retail buying public. The second market is for used plate. This market is composed of dealers and brokers who buy and sell flatware and hollow ware from estates or pawnshops, etc. This is a secondary market dealing with

what is termed as second hand silver. Most of the
silver traded in this market is machined manufactured
from the 1880's on. It is usually sold to the public
through gold and silver exchanges, antique dealers, and
mail order replacement businesses. The third and final
market is for unusual, artisan made or antique plate.
This plate is usually hand made by a craftsman. Machine
made silver of artistic merit, such as some of the late
19th century pieces of Moore's by Tiffany and "Martele"
by Gorham, would also fall in under this market. These
pieces are most commonly sold by antique dealers
specializing in providing antique silver to a
knowledgeable, sophisticated and appreciative
clientele.

Appraisers sometimes find themselves appraising in
all three levels of the silver market. The approach to
valuation in all three markets appears different. It is
the differing approaches that make many appraisers and
dealers, especially in antique silver, highly wary of a
weight approach to value. It is the purpose of this
paper to show that a weight valuation methodology
provides an accurate and unified approach to all silver
valuation.

WHAT CONSTITUTES A MARKET PROOF?

What constitutes a logically valid market proof is
to show that weight is used as a means of pricing in

at least one level of the silver market by dealers. Dealers, who along with their customers, shape and create the market. In other words, it is necessary to show, that at least in one instance, a weight valuation methodology is used to determine an actual price rather than a value estimate. This would constitute a market proof.

THE MARKET PROOF.

As discussed in section II, silver flatware and even silver holloware are commonly traded on the secondary market according to their weight. One example used was that of Grand Baroque sterling flatware. At Midwesterling, their current buy price for a set of Grand Baroque by Wallace is $16.00 an ounce. Individual pieces that do not comprise a complete place setting are purchased at a slightly lower per ounce price. Midwesterling also has a per ounce sell price for the same set. A set of Grand Baroque is currently being sold by them at $24.00 per ounce. The fact that silver flatware and holloware is sold according to a per ounce or weight price on the secondary market is a justification or proof of weight as a factor of value. It also stands as a proof that a weight valuation methodology is a valid approach to valuation. The example shows that it is valid in the secondary market.

SUMMATION.

Weight can be said to be a factor of silver value. This can be proven statistically, logically, historically, and in the market. Since weight is a factor of silver value, it opens us to the possibility that a weight valuation methodology is a valid approach to valuing silver. Indeed, the very use of a weight valuation methodology to value silver in the secondary market attests to its validity. The question is whether such a weight methodology is flexible enough to be used in valuing antique silver.

WHY A WEIGHT VALUATION METHODOLOGY CAN WORK: ACCOUNTABILITY AND FLEXIBILITY.

ACCOUNTABILITY.

Beauty and rarity are image factors or attributes. Their measurement is primarily subjective. Whereas durability and weight are more substantive. They are factors that can be measured with some certainty. The substantive side is the side that is weighed upon the most for the translation of value into terms of money. The reason is that substantive attributes can be measured more readily. This is an important consideration because it is the task of the appraiser to express value, even the more intangible or less measurable aspects of value such as beauty and rarity,

in terms of money. Since the substantive side of value is more easy to measure, the substantive factors are more heavily relied upon for the translation of value into monetary terms. For example, wear is more easy to measure than the harmony of line. That is, it is easier to quantify or rate. The presence or absence of wear is more simple to dispute or establish than the aesthetics of a piece. Thus its measure will have a greater influence on the overall value of the piece. Even Luddington alluded to this in giving a greater deduction for poor patina than for poor design.

Of the four factors of value, weight is the most substantive and easily measured of all. This being the case, weight can take on a special function. Since weight is inter-related in a piece of silver with the other three factors of value. And because weight is the easiest factor to convert or express in monetary terms. It would follow that weight, as modified by the other three factors of value, can take on the role of the primary determinate of expressing value. In other words, for the purpose of the monetary expression of value, the sum or measure of the first three factors of value can be expressed, measured, and accounted for by the fourth factor of weight. This is similar to any grade of a diamond or a colored stone being expressed with a per carat price. That is, the per carat price, which is based on the factor of weight, can express in

monetary terms the values of quality such as beauty, durability, and rarity for market purposes.

FLEXIBILITY.

COST APPROACH TO VALUE.

A weight valuation methodology is very flexible. It can function with the three major approaches to value; a cost approach to value, a market comparison approach to value, or a scrap/liquidation approach to value. An example of this flexibility and how it functions with a cost approach to value was shown in section II. Here an example from the jewelry market revealed that a weight valuation methodology could be used to value the wholesale and retail cost for newly manufactured goods. This example of a manufactured ring by Stuller also showed that a weight valuation methodology can embody several values in its expression of a price. It can express the quality of a design, the value of the workmanship, the cost of fabrication as well as the manufacturers or dealers profit.

MARKET SALES COMPARISON APPROACH.

The example of the methodology's flexibility in a market approach was also shown in section II in the discussion of two patterns of silver flatware. The discussion on Grand Baroque and Pine Spay showed that the price per ounce has little relation to the current

spot price of silver. In other words, the market value per ounce of these two patterns had little relation to the current commodity market value of spot silver.

SCRAP APPROACH TO VALUE.

The only time the value of a silver piece is directly impacted by the spot silver market is in the case of a damaged piece that is beyond repair. These pieces are valued according to their weight as scrap. Thus weight, because it is the most measurable of all the factors of value, can determine value on different levels. The most commonly accepted level is that of scrap. Here weight is tied to the spot commodity market value of silver. The second level weight can function on is a market level. On this level manufactured silver is traded between knowledgeable parties. Weight is used as a convenient measure of value for the purpose of exchange. In this instance, the weight value may contain a reference to the value of the silver at scrap, but it is not limited to it. In other words, a weight valuation methodology is not restricted in its ability to value by the silver commodity market. It can express through a per ounce price, the factors of beauty, durability or condition, and rarity or demand. In short the method can function on all levels of the market, accounting for required values in each.

As shown here and in section II, a weight

valuation methodology can be used for a cost approach to value, a market approach to value and a scrap/liquidation approach to value. If a weight valuation methodology was only applicable to a cost or scrap/liquidation approach, then it would possess no usefulness in valuing antique silver. The valuation of antique silver requires a market comparison approach. A weight valuation methodology is actually very flexible. It can be used to value both gold and silver. It can be used on both a retail and secondary market level. It can be used for a cost, a market, and a scrap approach to value. In other words, a weight valuation methodology is flexible enough to account for several different kinds of value. If combined with a systematic method of grading silver quality (Principle of Qualitative Rating), it could be the most accurate method of silver valuation.

CONCLUSION TO SECTION III.

The purpose of this section of the thesis was to prove that weight is a factor of silver value. Four proofs were given: a statistical, a logical, a historical, and a market proof. The statistical proof required an examination and codification of the factors of value. The next step was to show that all the factors of value are interrelated and inseparable from one another. Finally, a model was constructed and

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tested. The result showed that weight can predict or determine 59% of the variation in price. The logical proof showed that it is inconceivable, as well as absurd, to attempt to separate weight from the value of a silver object. Weight is intimately related to both form and substance. The historical proof showed that weight has been a traditional measure of and a factor of value for silver plate. The market proof showed that silver is priced on the secondary market according to its weight using a weight valuation methodology. This being the case, weight is proven to be a factor of value. Finally, this thesis looked at the reasons why weight could account for the other three factors of value in expressing an overall valuation of a silver piece.

The question now is whether a weight valuation methodology can be applied to the valuation of antique plate or artisan made silver. Can a weight valuation methodology express in monetary terms such things as beauty, desirability, rarity, etc.? In other words, can antique plate be truly valued on a per ounce basis? Can the values of these finer pieces be determined despite a rising or falling silver market using a weight methodology? The answer to all the questions is yes. It can be proven by using an example of antique plate, in this instance, George III tankards.

IV. METHOD.

INTRODUCTION.

If the thesis is true, then it must be true for the valuation of all kinds of silver. One of the tasks of this paper is to demonstrate that a weight valuation methodology using a per ounce method can be applied to antique artisan made silver. If this can be successfully done, it will prove several things. First of all, it will prove that the thesis is correct. It will prove from a practical approach that weight is a factor of value even for antique silver. It will also show that all silver, whether machine or artisan made, antique or modern, can be valued according to a per ounce method. It has already been shown in section II that modern machine made silver is valued according to a per ounce method. What remains is to show that it can be successfully applied to antique artisan made silver for the purposes of valuation.

To justify or validate this application, it will be necessary to show two things. First of all, it must be demonstrated that a price per ounce method can rationally account for (make sense of) prices on the market. It must be able to do so in a cogent and orderly manner. Secondly, it must be shown that the method can accurately function within acceptable and defined parameters. This is a crucial ability if the

methodology is to make accurate value determinations.

HOW DOES THE METHOD WORK.

The strength of this method lies in its simplicity and its accuracy. It is simple because it relies upon that which is most easily measured: weight. It is accurate because a per ounce approach yields information that best lends itself to ready analysis. To illustrate this, it is only necessary to compare and contrast a currently used approach to the per ounce method. For example, a George the III tankard, made by John Moore of London in 1761, sold at auction in 1989 for $3,366.00. Another George the III tankard, made by Charles Wright in 1772, sold at auction in 1991 for $4,412.10. (see comparables, Table 4A). Unfortunately, this is about all the information many silver price guides would provide the appraiser (e.g. Schwartz, Jeri. Official Price Guide to Silver and Silverplate. 6th ed.). Assuming both tankards were "perfect" specimens, the result would be a natural assumption on the part of the appraiser that the value of George III tankards had increased $1076.00 or approximately 12% per year. When the per ounce method is used, a different conclusion is reached.

Fortunately for the appraiser, the major auction houses have never discontinued the practice of providing the weight of a piece of silver along with

their value estimates in their sales catalogs. When the weights are taken into consideration, a very different picture emerges. For example, the tankard by Moore weighs 24 oz. The per ounce method requires breaking the sale price down into a per ounce price. In order to do this we divide the sale price of $3,366.00 by the weight of 24 oz. and receive a per ounce price of $140.25 or $140.00. Next, the same is done to the sale price of the 32 oz. tankard by Wright. $4,412.10 divided by the weight of 32 oz. gives a per ounce price of $137.87 or $138.00. What is readily apparent is that there is not a substantial price difference between $138.00 per oz. of Wright's tankard in 1991 and the $140.00 per oz. of Moore's tankard in 1989. The price difference is $2.00 per ounce, and the earlier 1989 price per ounce is higher. So there was not a 24% price increase in Georgian tankards from 1989 to 1991. There was in this instance a 1.4% decline.

This can be analyzed in another manner. Let us assume that both tankards weigh the same, i.e. 24 oz. If we assume that Wright's tankard had weighed 24 oz. instead of 32 oz., then its actual price in 1991 would have been $3,312.00 ($138.00 x 32 oz.). If this is compared to the $3,366.00 price of Moore's 24 oz. tankard in 1989, hypothetically there would be a $54.00 difference in the price. Thus, instead of showing a 24% increase in the value of George III tankards over a two

year period, it could be maintained that there was actually a 1.6% decline. In light of the recent recession, beginning in 1987, a decline would make a lot more sense.

The example using tankards by Moore and Wright shows the versatility of using a weight valuation method for analysis. Ideally, the work of the same artist should be analyzed in this fashion. Later on, the values of tankards by the same maker sold at different times will be analyzed in this fashion. The information is enlightening. Although specific information about the value of a particular artisan's work is desirable, often not enough information in the form of comparable sales for a particular artisan is available. In this instance, general information about prices on the market is helpful in determining the current value of a like and kind. Our example above would have been appropriate for a value determination and/or analytical purposes if it had taken into consideration a larger number of comparables. This would provide a much wider perspective of the market for a more accurate assessment. The next task is to do so.

ANALYZING GEORGE III TANKARDS:
THE CRITERIA FOR SELECTION.

To illustrate the working of this weight valuation

methodology on a wider scale, the category of George the III tankards was selected for analysis. Table 4A provides a listing of comparable sales of George III tankards at auction for the years 1988 through early 1991. This category was selected because they are one of the most frequent silver items to come up for sale at the major auction houses. Thus providing a greater number of comparables for analyzing sales data. Secondly, they are all examples of artisan made antique silver.

Certain standards were used for their selection. First of all, only sales of tankards with clear attributions were chosen. In other words, the auction catalog had to specifically state the maker, the year it was made, and the assay office mark, e.g. London. Secondly, only silver tankards made in England were included. Examples of Irish and Scottish silver were not selected. Thirdly, only tankards made in the reign of George III (1760-1820) were used. These were further restricted to tankards made in the period from 1760 to 1800. As the comparables show (Table 4B), the fashion for tankards began to diminish after 1770 as the era began to move into the age of Neo-classicism. Fourthly, mugs which have no lids, were not included with tankards, which do have lids. Fifthly, examples with provenance stated in the catalog were not used. The reason for this, as shown by Ms. Margaret Wallace in

her thesis <u>Continental Ceramics At Auction</u>, is that provenance can increase the value of a property beyond the value of comparable properties of a similar like and kind. This is true even for comparable properties by the same maker.

Finally, comparables were selected from actual sales made by the two primary auction houses where these pieces are most commonly and frequently traded: Christie's and Sotheby's. Prices realized either in British pounds or French francs from overseas sales have been converted into U.S. dollars based upon the convertible dollar figures provided by the auction house in its sales results sheet. Certain assumptions have also been made. The tankards listed are assumed free of any defects in condition that may affect their value. Comparables listed by the auction house with any problem or question of condition were not used.

TABLE 4A: EXPLANATION OF THE COMPARABLE LISTINGS.

The comparables are listed in Table 4A in the following manner:

London: Sotheby's lot #170 on 2/28/91.

George III tankard by Charles Wright, London, 1772.

Weight: 32 oz. Sale price: $4,412.10. Per oz: $137.87.

Estimate: £2,000 - £2,500. Spread: 20%.

The first line tells in what city the auction took place; who put on the auction and when; and what item

TABLE 4 A   COMPARABLES   Page 1

UNITED STATES AUCTION RESULTS   1987-1990

1). New York: Sotheby's Lot # 188 on 10/12/90
George III Tankard by Fuller White, London, 1761.
Weight: 29 oz. Sale Price: $4,675.00. Per oz: $161.20
Estimate: $2,000 - $2,500. * Percentage spread: 20%

2). New York: Sotheby's Lot # 192 on 10/12/90
George III Tankard by John Langlands, Newcastle, 1774.
Weight: 24.5 oz. Sale Price: $5,775. Per oz: $240.12
Estimate: $2,000 - $2,500. Spread: 20%

3). New York: Christie's Lot # 204 on 4/12/88
George III Tankard by John Payne, London, 1760.
Weight: 38 oz. Sale Price: $6,600. Per oz: $173.00
Estimate: $2,500 - $3,000.   Spread: 16.6%

4). New York: Christie's Lot #263 on 4/12/88
George III Tankard by James Priest, London, 1770.
Weight: 24 oz. Sale Price: $4,400. Per oz: $183.37.
Estimate: $2,500 - $3,500. Spread: 29%

NOT USED FOR TABLE 4B
5). New York: Christie's Lot # 308 on 4/29/87
George III tankard by Charles Hougham, London, 1790.
Weight: 21 oz. Sale Price: $1,980. Per oz: $94.28.
Estimate: $800 - $1,200. Spread: 33.3%

INTERNATIONAL AUCTION RESULTS   1987-1991

6). London: Sotheby's Lot # 170 on 2/28/91
George III tankard by Charles Wright, 1772.
Weight: 32 oz. Sale Price: $4,412.10. Per oz: $137.87
Estimate: £2,000 - £2,500. Spread: 20%

7). London: Sotheby's Lot # 168 on 2/28/91
George III tankard by W & J Priest, London, 1769.
Weight: 24.75 oz. Sale Price $3,571.70. Per oz: $144.31
Estimate: £800 - £1,200. Spread: 33.3%

8). London: Sotheby's Lot # 410 on 11/1/90
George III tankard by J & W Jones, London, 1769.
Weight: 24.5 oz. Sale Price: $4242.70. Per oz: $173.17
Estimate: £1,000 - £1,500. Spread: 33.3%

9). London: Sotheby's Lot # 396 on 11/1/90
George III tankard by John Robins, London, 1786.
Weight: 32.8 oz. Sale Price: $3,349.50. Per oz: $102.10
Estimate: £1,500 - £2,000. Spread: 25%

* The percentage spread between the two auction house
  estimates.

10). London: Christie's Lot #174 on 10/24/90
George III tankard by John Payne, London, 1763.
Weight: 26 oz. Sale Price: $4,670.60. Per oz: $179.63.
Estimate: £2,200 - £2,500.   Spread: 12%

11). Scotland: Sotheby's Lot #117 on 8/27/90
George III tankard by J*S, London, 1772.
Weight: 27.85 oz. Sale Price: $3889.60. Per oz: $139.66
Estimate: £800 - £1,200.   Spread: 33%

12). London: Christie's Lot 117 on 5/23/90
George III tankard by John Robins, London, 1796.
Weight: 23 oz. Sale Price: $2,772. Per oz: $120.52.
Estimate: £1,500 - £2,000.   Spread: 25%

13). London: Sotheby's Lot # 265 on 2/27/90
George III tankard by Smith & Hayter, London, 1797.
Weight: 29.85 oz. Sale Price: $4134.90. Per oz: $138.52
Estimate: £1,800 - £2,200.   Spread: 18.2%

14). London: Sotheby's Lot # 244 on 12/14/89
George III tankard by John Moore, London, 1761.
Weight: 24 oz. Sale Price: $3,366.00. Per oz: $140.25
Estimate: £1,000 - £1,500.   Spread: 33.3%

15). Monaco: Sotheby's Lot # 914 on 12/4/89
George III tankard by Charles Wright, London, 1762.
Weight: 30.7 oz. Sale price: $5053.65. Per oz: $164.61
Estimate: FF18,000 - FF22,000.   Spread: 18.2%

16). Scotland: Sotheby's Lot #281 on 8/28/89
George III tankard by Fuller White, London, 1764.
Weight: 23.25 oz. Sale price: $3122.90. Per oz: $134.31
Estimate: £600 - £800.   Spread: 25%

17). Scotland: Sotheby's Lot # 277 on 8/28/89.
George III tankard by Charles Wright, London, 1774.
Weight: 45.5 oz. Sale price: $7348.00. Per oz: $161.49.
Estimate: £2,000 - £2,500.   Spread: 20%

18). Scotland: Sotheby's Lot #276 on 8/28/89
George III tankard by John Langlands, Newcastle, 1800.
Weight: 25.9 oz. Sale price: $3122.90. Per oz: $120.57.
Estimate: £1,200 - £1,500.   Spread: 20%

19). Scotland: Sotheby's Lot # 271 on 8/28/89
George III tankard by William Cripps, London, 1764.
Weight: 22.95 oz. Sale price: $3306.60. Per oz: $144.09
Estimate: £1,000 - £1,500.   Spread: 33.3%

20). London: Christie's Lot # 206 on 5/24/89
George III tankard by John King, 1772.
Weight: 21 oz. Sale price: $2626.85. Per oz: $127.46.
Estimate: £1,000 - £1,500. Spread: 33.3%

21). London: Christie's Lot # 170 on 12/14/88
George III tankard by Hester Bateman, London, 1790.
Weight: 26 oz. Sale price: $3623.40. Per oz: $139.36.
Estimate: £1,200 - £1,800. Spread: 33.3%

22). London: Christie's Lot # 159 on 12/14/88
George III tankard by Whipham & Wright, 1768.
Weight: 31 oz. Sale price: $3623.00. Per oz: $116.87.
Estimate: £1,000 - £1,500. Spread: 33.3%

23). London: Sotheby's Lot #486 on 2/4/88
George III tankard by John Langlands, Newcastle, 1772.
Weight: 20.6 oz. Sale price: $2762.10. Per oz: $134.08
Estimate: £700 - £1,000. Spread: 30%

24). London: Sotheby's Lot # 40 on 2/4/88
George III tankard by Thomas Daniell, London, 1789.
Weight: 27.9 oz. Sale price: $4705.80. Per oz: $168.66
Estimate: £1,000 - 1,500. Spread: 33.3%

                    NOT USED ON TABLE 4B
25). London: Sotheby's Lot # 99 on 11/19/87
George III tankard by Charles Hougham, London, 1788.
Weight 26.3 oz. Sale price: $2895.00. Per oz: $110.07
Estimate: £700 - £900. Spread: 22%

26). London: Sotheby's Lot # 78 on 11/19/87
George III tankard by John King, London, 1784.
Weight 22.9 oz. Sale price: $2791.80. Per oz: $121.91
Estimate: £800 - £1,000. Spread: 20%

or lot number the piece had. The second line identifies the piece, who made it, where and when. The third line gives the weight; the final sale price the item attained; and the sale price broken down into a price per ounce of silver. Again, this price per ounce (p.p.o.) figure was attained by dividing the sale price of $4,412.10 by the tankard's weight of 32 oz. to receive a price per ounce of $137.87. For the purpose of later analysis, the price per ounce figure will be rounded off to the nearest hundredth, e.g. in the case of the above example, $137.87 will be rounded off to $138.00. The fourth and final line gives the auction house estimate, and the percentage spread between the two figures.

TABLE 4B.

Table 4B is a listing of 23 comparables from Table 4A. The comparables are listed according to their weight and their price per ounce (p.p.o.). They are grouped according to the decade they were made. What is interesting about this grouping is that the frequency of pieces sold from each decade closely approximates the frequency of pieces made in each period. In other words, more tankards were made in the period of 1760 to 1770 than from 1791 to 1800 as tastes began to change.

TABLE 4B. DERIVING AN AVERAGE PRICE PER OUNCE FOR A

TABLE 4B

1760-1770		1771-1780		1781-1790		1791-1800	
oz.	p.p.o.	oz.	p.p.o.	oz.	p.p.o.	oz.	p.p.o.
29	$161	24	$240	32.8	$102	23	$120
38	$173	32	$138	27.9	$168	29.85	$138
24	$183	27.85	$140	26.0	$139	25.9	$121
24.75	$144	45.5	$161				
24.5	$173	21	$127		$409		$381
26	$179	20.6	$134				
24	$140						
30.7	$165		$940				
23.25	$134						
22.95	$144						
31	$116						
	$1712						

1760-1770 average per oz. price: $1712 - 11 comparables = $155.63 per oz.
1771-1780 average per oz. price: $ 940 - 6 comparables = $156.66 per oz.
1781-1790 average per oz. price: $ 409 - 3 comparables = $136.33 per oz.
1791-1800 average per oz. price: $ 381 - 3 comparables = $127.00 per oz.

Total average per oz price: $3442 - 23 comparables = **$149.65 or $150.**

NOTE: Comparables used were taken from major auctions from 1988 to 1991. Data from 1987 was not included. Comparables made outside of England, e.g. Irish silver were not included. Comparables with no maker, date or city provided by the auction house were not used. All p.p.o were rounded off to their nearest hundredth.

PARTICULAR DECADE.

An average per ounce price could also be obtained for tankards made in a particular decade. In the case of 1760-1770, the average price per oz. for a George III tankard was $155.63. For the decade of 1771-1780, the average price per oz. was $156.66. However, for the decade of 1781-1790 the average price per ounce drops to $136.33. This drop in the price per ounce continues for the decade of 1791-1800 with a average price per ounce of $127.00. Certainly the lack of comparables from these latter two decades makes any generalizations from these figures difficult. However, as it will be shown below, the average price per ounce for these periods occurs within acceptable limits or parameters. One can tentatively assert that tankards from these latter two decades usually go for a lower price per ounce than tankards made from 1760-1770.

TABLE 4B. DERIVING AN AVERAGE PRICE PER OUNCE FOR GEORGE III TANKARDS.

A total price per ounce, derived from averaging the figures for the 40 year period, was also obtained. By totaling the price per ounce (p.p.o.) of all the columns in Table 4B and dividing this figure of $3,442.00 by the number of 23 comparables, we obtain the total average price per ounce of $149.65 or $150.00. In other words, the average price per ounce

for a George III tankard at this time is approximately $150.00 per ounce. Thus it can be said: a George III tankard by an average artist, in good condition and weighing 24 ounces, should sell in the range of $3,600.00.

SOLUTION TO THE PROBLEM OF DERIVING A BASE PRICE.

The advantage of this weight valuation methodology is that it provides the appraiser with a way of determining a base price for any type of silver object. With this price per ounce method, the appraiser can use the sales information of comparable pieces provided by the auction house in establishing an average base price. Using the auction house data has the added advantage of analyzing information based upon actual documented sales rather than dealer asking prices. In short, a weight valuation methodology provides the appraiser with a way of determining a base price which Luddington was not able to do, except hypothetically. Solving the problem of deriving the base price enables the appraiser to employ those deductions and/or additions to value that Luddington lists in order to determine an overall valuation to any particular piece. Retail valuations can be determined by adding the appropriate markup to the figures derived from the analyzed data. Secondly, as shown in the examples on Table 4A and 4B, the price per ounce method is not

dependent upon the current price per ounce of spot silver on the commodities market. The price per ounce method can float to reflect the value of one piece or a group of pieces. As a result it can reflect the market. It can provide a simple and accurate way of analyzing, tracking, and determining the market. In short, the price per ounce method is a far more accurate and accessible method for the appraiser of antique silver to use.

JUSTIFYING THE USE OF THE STATISTICAL MEAN AS THE BASE PRICE.

The main objection at this point is that the vast majority of George III silver tankards are not going to sell for exactly $3,600.00 or $150.00 per ounce. This is true. Even the examples by Wright and Moore used at the beginning of this section sold at a lower per ounce price. This being the case, it becomes necessary to justify the statistical mean, in this case of $150.00 per ounce, as being a base price. As shown in statistics, one will have a spread or range of value in which the vast majority of pieces will occur. Thus a base price cannot be said to be a fixed given. One can successfully argue that any price that occurs within the statistical range of value could be legitimately considered as a base price. The success of any valuation methodology lies in establishing guidelines

or criteria.

Using the statistical mean as a base price is a rational guideline. It is not the task of the appraiser to determine an exact value or price for any object, but rather the average. Accepting the statistical mean as the base price enables the appraiser to determine the average value for any item of silver. It represents a starting point from which deductions or additions to value can be made. For example, if we know that a George III tankard sells on average for $150.00 per ounce, and our example has poor patina, we can deduct accordingly. By the same token, if our subject property was owned by a famous personage, we can add to the value because of provenance. Since the value of any group of silver objects occurs within a range, it is rational to assume that the statistical mean represents the average value of that group. Therefore the statistical mean can justifiably serve as a base price.

THE NEED FOR VALUE PARAMETERS.

Since the prices of our sample George the III tankards occur in a range, we have a range of possible value. One solution to that range is to posit the statistical mean as a base price. However, any good system of valuation will exhibit flexibility, as well as a check and balance to that flexibility. In so far as prices occur in a range, a sound method will adjust

and accommodate to that market reality. This is necessary because the accuracy of any appraised value is always set against or measured against the price it sells for, or what an exact comparable sells for. However, the accuracy of any method also requires limits. Since prices are not fixed as they occur in the market, limits must be delineated to a value range. This is statistically sound as well (see Table 4C and below). Any valuation methodology that acts within defined limits or parameters increases its accuracy.

WHAT ARE THE PARAMETERS OF VALUE: A DEFINITION.

The parameters of value delineate an acceptable spread or range of value. That is, these parameters delineate an acceptable margin of error. The existence of such parameters are crucial to the appraiser. It is the task of the appraiser to determine the value of an object as of a given date, reflecting particular conditions in the market at the time of the appraisal. In other words, the appraiser attempts to determine a correct value within an accurate value range rather than an actual sales price.

VALUE VERSUS PRICE.

The difference between value and price can be succinctly put. The price of an item of silver is a **fact** in the market. It is the price actually **paid** for

that item, i.e. the figure it sold for. The price paid thereby becomes a statement and confirmation of value. On the other hand, value as it applies to valuation is an **estimate** **of** **worth** (Scribner-Bantam English Dictionary 1002). It is an **estimation** of what the price paid **might be.** Ideally, this estimation is based upon the price paid for comparables; items of like and kind. At best, it attempts to provide an average value for a particular object based upon the average sale price of like and kind comparables. What the appraisal cannot determine is the conditions of the market at the time of a future sale that will effect the final sale price. The appraisal can only estimate value as of the date of the appraisal. As a result, it is only reasonable to assume that some variation will occur between an estimate of value and the actual price paid for an item. The task here is to determine what the acceptable limits or parameters of that variation might be. Moreover, these limits should be derived from market data so as to reflect the reality of the market. They should also be confirmed by data derived from the market. This paper will now do both.

TABLE 4C: FREQUENCY TABLE.
SETTING THE PARAMETERS.

Table 4C is a frequency Table based upon the actual sales of George III tankards showing the nine

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TABLE 4C

#	NUMBER OF COMPARABLES	$ RANGE
1.	1	$100-109
2.	1	$110-119
3.	3	$120-129
4.	5	$130-139
5.	4	$140-149
6.	4	$160-169
7.	3	$170-179
8.	1	$180-189
9.	1	$200 plus
	—	
TOTAL	23	

The number of comparables have the greatest frequency between numbers 3 and 7. Numbers 1,2,8,& 9 can be eliminated as insignificant comparables being outside the range of frequency. The frequency spread between the low of 120 and the high of 179 is 32.9%.

different price ranges that the comparables on Tables 4A & B occur within. The majority of comparables occur between points 3 and 7. This is the range of greatest activity. Below point 3 at points 2 and 1, and above point 7 at points 8 and 9, there is one comparable in each space. Points 1,2,8, & 9 can be disregarded. The primary reason is that not enough sales occur in these ranges to be indicative of the market's real range of activity. Secondly, as it will be shown, these ends of the spectrum more often reflect aberrations in the market rather than trends.

Of the 23 comparables, 19 fall within the sale range of points 3 to 7. This translates into sales within the $120.00 per ounce range to the $170.00 per ounce range. More specifically, we have sales figures ranging from $120 to $179.00. Interestingly enough, if we derive the mean of the two figures we receive the average of $149.50 per oz. This figure is close to our overall average price per ounce of $149.65, despite the elimination of points 1,2,8,& 9 from consideration. This result can be considered a further confirmation of the correctness in doing away with the comparables in points 1,2,8, & 9. The figures of $120 to $179 also establish the limits of our parameters or the range of value. This spread can be converted into a percentage by dividing $120 by $179 to arrive at a percentage total of 32.9% or 33%.

THE 33.3% PARAMETER.

This paper maintains that there exists a range of value of approximately 33.3% within which an appraiser can determine a value using the per ounce method, and be correct. In other words, there exists a 33.3% spread between the high and low of any given value range. The statistical mean (base price) falls at the center of this spread. Any estimate of value that occurs within this 33.3% spread can be said to be correct for appraisal purposes. This can be said to be true even if that item or a comparable should sell within a brief period of time at figure that is different from the appraised figure. As long as it falls within a 33.3% spread, the appraiser's value estimate is correct.

The justification for this is that the active market occurs with the greatest frequency within a 33.3% spread (see below). The question as to how to determine whether a value estimate is within such a spread will be discussed below. At this point it is necessary to support and defend this figure of a 33.3% spread. It is necessary to show that this is not an arbitrary figure derived merely from this work. It is necessary to show that the figure of a 33.3% spread can be supported and justified from existing market data. That is, there exists a precedence in the trade for this percentage spread. If this can be shown, it will

confirm and support the accuracy of the statistical model in Tables 4B, 4C, and 4D, and it will further confirm the accuracy of the the weight valuation methodology using a per ounce method.

JUSTIFICATION FOR THE 33.3% PARAMETER.

The first justification of the 33.3% spread comes from the auction house estimates. Estimates are published by the auction houses as a statement of their opinion as to what price range an item may sell within. Table 4A also lists the auction house estimates along with their percentage spreads. These figures have been condensed, broken down and analyzed in Table 4D.

Although the percentage spreads shown in Table 4D vary from as low as 12%, they do not exceed 33.3%. In other words, 33.3% represents the maximum spread between the high and low estimates provided by the auction houses. The fact that there are 16 examples of spreads lower than 33.3% does not affect the argument being put forth here. The reason is that they occur within the 33.3% spread and not outside of it. This paper maintains that 33.3% represents the maximum limit of a value spread. Any figure that falls outside the 33.3% parameter can be disregarded. Whereas all estimates are essentially hypothetical, the fact that 33.3% represents the maximum spread is also confirmed in the sales figures in the examples of the Georgian

TABLE 4D

COMPARABLES TAKEN FROM LINE 4 OF TABLE 4A.

1).	Estimate: $2,000 - $2,500.	Spread: 20%
2).	Estimate: $2,000 - $2,500.	Spread: 20%
3).	Estimate: $2,500 - $3,000.	Spread: 16.6%
4).	Estimate: $2,500 - $3,500.	Spread: 29%
5).	Estimate: $800 - $1,200.	Spread: 33.3%
6).	Estimate: £2,000 - £2,500.	Spread: 20%
7).	Estimate: £800 - £1,200.	Spread: 33.3%
8).	Estimate: £1,000 - £1,500.	Spread: 33.3%
9).	Estimate: £1,500 - £2,000.	Spread: 25%
10).	Estimate: £2,200 - £2,500.	Spread: 12%
11).	Estimate: £800 - £1,200.	Spread: 33%
12).	Estimate: £1,500 - £2,000.	Spread: 25%
13).	Estimate: £1,800 - £2,200.	Spread: 18.2%
14).	Estimate: £1,000 - £1,500.	Spread: 33.3%
15).	Estimate: FF18,000 - FF22,000.	Spread: 18.2%
16).	Estimate: £600 - £800.	Spread: 25%
17).	Estimate: £2,000 - £2,500.	Spread: 20%
18).	Estimate: £1,200 - £1,500.	Spread: 20%
19).	Estimate: £1,000 - £1,500.	Spread: 33.3%
20).	Estimate: £1,000 - £1,500.	Spread: 33.3%
21).	Estimate: £1,200 - £1,800.	Spread: 33.3%
22).	Estimate: £1,000 - £1,500.	Spread: 33.3%
23).	Estimate: £700 - £1,000.	Spread: 30%
24).	Estimate: £1,000 - 1,500.	Spread: 33.3%
25).	Estimate: £700 - £900.	Spread: 22%
26).	Estimate: £800 - £1,000.	Spread: 20%

RANGE OF PERCENTAGE SPREADS

	10-19%	20-29%	30-33.3%
Number of comparables	4	11	11

tankards (Table 4C: statistical frequency spread). The analysis done in Table 4C of the actual market sale prices supports and justifies the auction houses' use of up to a 33.3% spread in their estimates. These two facts support and justify this paper's establishment of a 33.3% spread as an acceptable margin of error for a silver valuation.

ADDITIONAL MARKET PRECEDENCE FOR A 33.3% PARAMETER.

Precedence for a 33.3% spread already exists in the jewelry industry. Table 4E shows the Palomar prices for retail at both keystone and triple keystone. In the jewelry industry, doubling wholesale cost is known as keystone. Traditionally, most jewelers work on this markup over wholesale. Tripling the wholesale cost is known as triple keystone. Jewelers who have higher overheads often use this higher markup to cover their cost of doing business. The spread between these two retail markups is 33.3%.

The question fronting the appraiser is which markup to use over wholesale when determining a market value for insurance replacement. The National Association of Jewelry Appraisers has suggested in effect a compromise by using a 2.5 time markup. In other words, they take a position similar to the position of this paper regarding the base price as the mean. But what markup to use is really beyond the scope
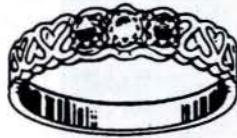
Family Rings
Retail Price List

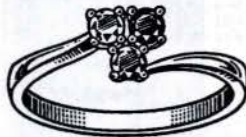| 14KT STYLE NO.	GENUINE STONES				SYNTHETIC STONES				10KT STYLE NO.	GENUINE STONES				SYNTHETIC STONES			
	$251 to 300	$301 to 350	$351 to 400	$401 to 450	$251 to 300	$301 to 350	$351 to 400	$401 to 450		$251 to 300	$301 to 350	$351 to 400	$401 to 450	$251 to 300	$301 to 350	$351 to 400	$401 to 450
14/0977-02	211	224	242	259	175	188	206	223	03/0977-02	152	158	168	178	116	122	132	142
14/0977-03	233	246	264	281	179	192	210	227	03/0977-03	174	180	190	200	120	126	136	146
14/0977-04	255	268	286	303	183	196	214	231	03/0977-04	196	202	212	222	124	130	140	150
14/0977-05	277	290	308	325	187	200	218	235	03/0977-05	218	224	234	244	128	134	144	154
14/0977-06	299	312	330	347	191	204	222	239	03/0977-06	240	246	256	266	132	138	148	158
14/0977-07	321	334	352	369	195	208	226	243	03/0977-07	262	268	278	288	136	142	152	162
14/0979-02	218	235	255	276	198	215	235	256	03/0979-02	162	171	185	199	142	151	165	179
14/0979-03	232	249	269	290	202	219	239	260	03/0979-03	176	185	199	213	146	155	169	183
14/0979-04	246	263	283	304	206	223	243	264	03/0979-04	190	199	213	227	150	159	173	187
14/0979-05	260	277	297	318	210	227	247	268	03/0979-05	204	213	227	241	154	163	177	191
14/0979-06	274	291	311	332	214	231	251	272	03/0979-06	218	227	241	255	158	167	181	195
14/0979-07	288	305	325	346	218	235	255	276	03/0979-07	232	241	255	269	162	171	185	199
14/1600-02	130	138	156	161	118	126	138	149	03/1600-02	100	103	111	119	88	91	99	106
14/1600-03	140	148	160	171	122	130	142	153	03/1600-03	110	113	121	129	92	95	103	110
14/1600-04	150	158	170	181	126	134	146	157	03/1600-04	120	123	131	139	96	99	107	114
14/1600-05	160	168	180	191	130	138	150	161	03/1600-05	130	133	141	149	100	103	111	118
14/1600-06	170	178	190	201	134	142	154	165	03/1600-06	140	143	151	159	104	107	115	122
14/1600-07	180	188	200	211	138	146	158	169	03/1600-07	150	153	161	169	108	111	119	126
14/1601-02	185	201	221	241	171	187	207	227	03/1601-02	135	144	155	169	121	130	142	155
14/1601-03	196	212	232	252	175	191	211	231	03/1601-03	146	155	167	180	125	134	146	159
14/1601-04	207	223	243	263	179	195	215	235	03/1601-04	157	166	178	191	129	138	150	163
14/1601-05	218	234	254	274	183	199	219	239	03/1601-05	168	177	189	202	133	142	154	167
14/1601-06	229	245	265	285	187	203	223	243	03/1601-06	179	188	200	213	137	146	158	171
14/1601-07	240	256	276	296	191	207	227	247	03/1601-07	190	199	211	224	141	150	162	175
14/1604-02	108	112	120	128	98	102	110	118	03/1604-02	90	91	96	101	80	81	86	91
14/1604-03	117	121	129	137	102	106	114	122	03/1604-03	99	100	105	110	84	85	90	95
14/1604-04	126	130	138	146	106	110	118	126	03/1604-04	108	109	114	119	88	89	94	99
14/1604-05	135	139	147	155	110	114	122	130	03/1604-05	117	118	123	128	92	93	98	103
14/1604-06	144	148	156	164	114	118	126	134	03/1604-06	126	127	132	137	96	97	102	107
14/1604-07	153	157	165	173	118	122	130	138	03/1604-07	135	136	141	146	100	101	106	111
14/1605-01	184	196	212	229	166	178	194	211	03/1605-01	134	140	150	160	116	122	132	142
14/1605-02	206	218	234	251	170	182	198	215	03/1605-02	156	162	172	182	120	126	136	146
14/1605-03	228	240	256	273	174	186	202	219	03/1605-03	178	184	194	204	124	130	140	150
14/1605-04	250	262	278	295	178	190	206	223	03/1605-04	200	206	216	226	128	134	144	154
14/1605-05	272	284	300	317	182	194	210	227	03/1605-05	222	228	238	248	132	138	148	158
14/1605-06	294	306	322	339	186	198	214	231	03/1605-06	244	250	260	270	136	142	152	162
14/1605-07	316	328	344	361	190	202	218	235	03/1605-07	266	272	282	292	140	146	156	166
14/1607-02	193	206	223	240	151	164	181	198	03/1607-02	156	161	171	180	114	119	129	138
14/1607-03	203	216	233	250	155	168	185	202	03/1607-03	166	171	181	190	118	123	133	142
14/1607-04	213	226	243	260	159	172	189	206	03/1607-04	176	181	191	200	122	127	137	146
14/1607-05	223	236	253	270	163	176	193	210	03/1607-05	186	191	201	210	126	131	141	150
14/1607-06	233	246	263	280	167	180	197	214	03/1607-06	196	201	211	220	130	135	145	154
14/1607-07	243	256	273	290	171	184	201	218	03/1607-07	206	211	221	230	134	139	149	158
14/1607-08	253	266	283	300	175	188	205	222	03/1607-08	216	221	231	240	138	143	153	162
14/1611-01	167	179	195	211	161	173	189	205	03/1611-01	120	126	136	145	114	120	130	140
14/1611-02	177	189	205	221	165	177	193	209	03/1611-02	130	136	146	156	118	124	134	144
14/1611-03	187	199	215	231	169	181	197	213	03/1611-03	140	146	156	166	122	128	138	148
14/1611-04	197	209	225	241	173	185	201	217	03/1611-04	150	156	166	176	126	132	142	152
14/1611-05	207	219	235	251	177	189	205	221	03/1611-05	160	166	176	186	130	136	146	156
14/1611-06	217	229	245	261	181	193	209	225	03/1611-06	170	176	186	195	134	140	150	160
14/1611-07	227	239	255	271	185	197	213	229	03/1611-07	180	186	196	205	138	144	154	164
14/1615-02	122	127	137	146	110	115	125	134	03/1615-02	93	95	101	107	81	83	89	95
14/1615-03	132	137	147	156	114	119	129	138	03/1615-03	103	105	111	117	85	87	93	99
14/1615-04	142	147	157	166	118	123	133	142	03/1615-04	113	115	121	127	89	91	97	103
14/1615-05	152	157	167	176	122	127	137	146	03/1615-05	123	125	131	137	93	95	101	107
14/1615-06	162	167	177	186	126	131	141	150	03/1615-06	133	135	141	147	97	99	105	111
14/1615-07	172	177	187	196	130	135	145	154	03/1615-07	143	145	151	157	101	103	109	115
14/1616-01	164	174	189	202	146	156	170	184	03/1616-01	124	129	138	147	106	111	120	129
14/1616-02	186	196	210	224	150	160	174	188	03/1616-02	146	151	160	169	110	115	124	133
14/1616-03	208	218	232	246	154	164	178	192	03/1616-03	168	173	182	191	114	119	128	137
14/1616-04	230	240	254	268	158	168	182	196	03/1616-04	190	195	204	213	118	123	132	141
14/1616-05	252	262	276	290	162	172	186	200	03/1616-05	212	217	226	235	122	127	136	145
14/1616-06	274	284	298	312	166	176	190	204	03/1616-06	234	239	248	257	126	131	140	149
14/1616-07	296	306	320	334	170	180	194	208	03/1616-07	256	261	270	279	130	135	144	153

Table 4E

Family Rings

Retail Price List

14KT STYLE NO.	GENUINE STONES $251 to 300	$301 to 350	$351 to 400	$401 to 450	SYNTHETIC STONES $251 to 300	$301 to 350	$351 to 400	$401 to 450	10KT STYLE NO.	GENUINE STONES $251 to 300	$301 to 350	$351 to 400	$401 to 450	SYNTHETIC STONES $251 to 300	$301 to 350	$351 to 400	$401 to 450
14/0977-02	316	336	363	389	262	282	309	335	03/0977-02	228	237	252	267	174	183	198	213
14/0977-03	349	369	396	422	268	288	315	341	03/0977-03	261	270	285	300	180	189	204	219
14/0977-04	382	402	429	455	274	294	321	347	03/0977-04	294	303	318	333	186	195	210	225
14/0977-05	415	435	462	488	280	300	327	353	03/0977-05	327	336	351	365	192	201	216	231
14/0977-06	448	468	495	521	286	306	333	359	03/0977-06	360	369	384	399	198	207	222	237
14/0977-07	481	501	528	554	292	312	339	365	03/0977-07	393	402	417	432	204	213	228	243
14/0979-02	327	352	383	414	297	322	353	384	03/0979-02	243	257	278	299	213	227	248	268
14/0979-03	348	373	404	435	303	328	359	390	03/0979-03	264	278	299	319	219	233	254	274
14/0979-04	369	394	425	456	309	334	365	396	03/0979-04	285	299	320	340	225	239	260	280
14/0979-05	390	415	446	477	315	340	371	402	03/0979-05	306	320	341	361	231	245	266	286
14/0979-06	411	436	467	498	321	346	377	408	03/0979-06	327	341	362	382	237	251	272	292
14/0979-07	432	457	488	519	327	352	383	414	03/0979-07	348	362	383	403	243	257	278	298
14/1600-02	195	207	224	242	177	189	206	224	03/1600-02	150	155	166	177	132	137	148	159
14/1600-03	210	222	239	257	183	195	212	230	03/1600-03	165	170	181	192	138	143	154	165
14/1600-04	225	237	254	272	189	201	218	236	03/1600-04	180	185	196	207	144	149	160	171
14/1600-05	240	252	269	287	195	207	224	242	03/1600-05	195	200	211	222	150	155	166	177
14/1600-06	255	267	284	302	201	213	230	248	03/1600-06	210	215	226	237	156	161	172	183
14/1600-07	270	282	299	317	207	219	236	254	03/1600-07	225	230	241	252	162	167	178	189
14/1601-02	277	301	331	361	256	280	310	340	03/1601-02	202	215	235	254	181	194	214	233
14/1601-03	293	317	348	378	262	286	316	346	03/1601-03	218	232	251	271	187	200	220	239
14/1601-04	310	334	364	394	268	292	322	352	03/1601-04	235	248	268	287	193	206	226	245
14/1601-05	326	350	381	411	274	298	328	358	03/1601-05	251	265	284	304	199	212	232	251
14/1601-06	343	367	397	427	280	304	334	364	03/1601-06	268	281	301	320	205	218	238	257
14/1601-07	359	383	414	444	286	310	340	370	03/1601-07	284	298	317	337	211	224	244	263
14/1604-02	162	168	180	192	147	153	165	177	03/1604-02	136	137	145	152	121	122	130	137
14/1604-03	175	181	193	205	153	159	171	183	03/1604-03	149	151	158	166	127	128	136	143
14/1604-04	189	195	207	219	159	165	177	189	03/1604-04	163	164	172	179	133	134	142	149
14/1604-05	202	208	220	232	165	171	183	195	03/1604-05	176	178	185	193	139	140	148	155
14/1604-06	216	222	234	246	171	177	189	201	03/1604-06	190	191	199	206	145	146	154	161
14/1604-07	229	235	247	259	177	183	195	207	03/1604-07	203	205	212	220	151	152	160	167
14/1605-01	275	294	319	343	248	267	292	316	03/1605-01	200	209	224	239	173	182	197	212
14/1605-02	308	327	352	376	254	273	298	322	03/1605-02	233	242	257	272	179	188	203	218
14/1605-03	341	360	385	409	260	279	304	328	03/1605-03	266	275	290	305	185	194	209	224
14/1605-04	374	393	418	442	266	285	310	334	03/1605-04	299	308	323	338	191	200	215	230
14/1605-05	407	426	451	475	272	291	316	340	03/1605-05	332	341	356	371	197	206	221	236
14/1605-06	440	459	484	508	278	297	322	346	03/1605-06	365	374	389	404	203	212	227	242
14/1605-07	473	492	517	541	284	303	328	352	03/1605-07	398	407	422	437	209	218	233	248
14/1607-02	290	309	335	360	227	246	272	297	03/1607-02	233	242	256	271	170	179	193	208
14/1607-03	305	324	350	375	233	252	278	303	03/1607-03	248	257	271	286	176	185	199	214
14/1607-04	320	339	365	390	239	258	284	309	03/1607-04	263	272	286	301	182	191	205	220
14/1607-05	335	354	380	405	245	264	290	315	03/1607-05	278	287	301	316	188	197	211	226
14/1607-06	350	369	395	420	251	270	296	321	03/1607-06	293	302	316	331	194	203	217	232
14/1607-07	365	384	410	435	257	276	302	327	03/1607-07	308	317	331	346	200	209	223	238
14/1607-08	380	399	425	450	263	282	308	333	03/1607-08	323	332	346	361	206	215	229	244
14/1611-01	250	268	292	316	241	259	283	307	03/1611-01	180	189	204	219	171	180	195	210
14/1611-02	265	283	307	331	247	265	289	313	03/1611-02	195	204	219	234	177	186	201	216
14/1611-03	280	298	322	346	253	271	295	319	03/1611-03	210	219	234	249	183	192	207	222
14/1611-04	295	313	337	361	259	277	301	325	03/1611-04	225	234	249	264	189	198	213	228
14/1611-05	310	328	352	376	265	283	307	331	03/1611-05	240	249	264	279	195	204	219	234
14/1611-06	325	343	367	391	271	289	313	337	03/1611-06	255	264	279	294	201	210	225	240
14/1611-07	340	358	382	406	277	295	319	343	03/1611-07	270	279	294	309	207	216	231	246
14/1615-02	182	191	205	219	164	173	187	201	03/1615-02	140	143	152	161	122	125	134	143
14/1615-03	197	206	220	234	170	179	193	207	03/1615-03	155	158	167	176	128	131	140	149
14/1615-04	212	221	235	249	176	185	199	213	03/1615-04	170	173	182	191	134	137	146	155
14/1615-05	227	236	250	264	182	191	205	219	03/1615-05	185	188	197	206	140	143	152	161
14/1615-06	242	251	265	279	188	197	211	225	03/1615-06	200	203	212	221	146	149	158	167
14/1615-07	257	266	280	294	194	203	217	231	03/1615-07	215	218	227	236	152	155	164	173
14/1616-01	246	261	282	303	219	234	255	276	03/1616-01	186	193	206	220	159	166	179	193
14/1616-02	279	294	315	336	225	240	261	282	03/1616-02	219	226	239	253	165	172	185	199
14/1616-03	312	327	348	369	231	246	267	288	03/1616-03	252	259	272	286	171	178	191	205
14/1616-04	345	360	381	402	237	252	273	294	03/1616-04	285	292	305	319	177	184	197	211
14/1616-05	378	393	414	435	243	258	279	300	03/1616-05	318	325	338	352	183	190	203	217
14/1616-06	411	426	447	468	249	264	285	306	03/1616-06	351	358	371	385	189	196	209	223
14/1616-07	444	459	480	501	255	270	291	312	03/1616-07	384	391	404	418	195	202	215	229

of this paper. What is to be noted is that there is a 33.3% spread between keystone and triple keystone. The fact of the matter is that any value, whether it is at either end or in between (such as the 2.5 markup), is a legally defensible value. In other words, an item of jewelry can be valued on a retail level anywhere within this 33.3% spread and still be considered a correct valuation. The reason is that similar items commonly sell in the market at prices that fall within this 33.3% range. Moreover, this 33.3% value spread is recognized, accepted, and used by the jewelry trade. The Palomar price list is a confirming example of this. Like other jewelry companies, they publish both a keystone and triple keystone retail price list (Table 4E). This 33.3% spread on the retail level is not limited to jewelry. New sterling silver is also sold at retail within the same range.

The fact that Table 4C reveals an approximate 33% (32.9%) spread between the most frequent comparables, and that the appearance of a 33.3% spread is common in the auction house estimates of value (Table 4D), as well as in the jewelry industry (Table 4E); it is reasonable to assume that there is a justification for the use of a 33% or 33.3% spread in the valuation of silver. In other words, there can exist a spread of 33.3% between the high and low value of any item of silver, whether it is appraised on a fair market or

retail level. Any item of silver valued within that spread can be said to possess a correct valuation for the purpose of appraisal; either retail or fair market. By establishing these parameters as a standard, we do not negate the value of an appraised item when it, or a comparable, later sells at a price that is different than the appraised value. As long as that value falls within a 33.3% spread between the value given and the price realized, it is reasonable to assume that the appraised value was legitimate and not in error.

ADVANTAGES OF A 33.3% PARAMETER STANDARD: APPLICATIONS.

The advantage of this standard is three fold. In the first place it can serve as a check and balance to valuation estimates when applied to groups of comparables. Secondly, it enables the appraiser to determine a value range from a limited number of comparables. Finally, it can function as a legitimate range of value whether one is appraising on a retail or fair market level.

THE CHECK AND BALANCE ADVANTAGE: REVEALING ABERRATIONS.

First of all, it is reasonable to assume that if the value of any given item of silver can fall within the range of a 33.3% spread, then it is also reasonable to assume that values or even prices realized at auction that fall outside that spread may be

discounted. Let us take an example. Table 4F lists sales of three Georgian tankards by John Langlands. As shown above, without using a per ounce method of valuation it would not be possible to fully or accurately analyze comparables. In this instance, by breaking each comparable down to its per ounce price, we can determine a very crucial point. That is, we can apply the touchstone to any comparable to see if it is truly reflective of the nature of the market, or just an aberration.

In the case of the Langland's tankards, number 2 has a per ounce value of $120.57. Number 3 has a per ounce value of $134.08. The spread between the two figures is approximately 10%. So we know that even though they do not have the same price per ounce, they are close enough to reflect the market. The appraiser could encounter a confusing problem when confronted with number 1 which has a per ounce value of $240.12. Without the 33.3% standard as a guideline, this latter figure could confuse the analysis and throw the appraiser off in his valuation. This is especially true since this is the last recorded sale and could be interpreted to suggest a trend in the market.

However, the 33.3% standard is a touchstone. Comparing number 1 with number 3, the spread between the two is at least 44%. When we compare number 2 with number 1, the spread is even greater: 50%. We know that

HOUGHAM 2
1). New York: Christie's Lot # 308 on 4/29/87
George III tankard by Charles Hougham, London, 1790.
Weight: 21 oz. Sale Price: $1,980. Per oz: $94.28.

2). London: Sotheby's Lot # 99 on 11/19/87
George III tankard by Charles Hougham, London, 1788.
Weight 26.3 oz. Sale price: $2895.00. Per oz: $110.07

There is a 14% spread between the p.p.o. of 1 & 2.

KING 2
1). London: Christie's Lot # 206 on 5/24/89
George III tankard by John King, 1772.
Weight: 21 oz. Sale price: $2626.85. Per oz: $127.46.

2). London: Sotheby's Lot # 78 on 11/19/87
George III tankard by John King, London, 1784.
Weight 22.9 oz. Sale price: $2791.80. Per oz: $121.91

There is a 4% spread between the p.p.o. of 1 & 2.

LANGLANDS 3
1). New York: Sotheby's Lot # 192 on 10/12/90
George III Tankard by John Langlands, Newcastle, 1774.
Weight: 24.5 oz. Sale Price: $5,775. Per oz: $240.12

2). Scotland: Sotheby's Lot #276 on 8/28/89
George III tanakrd by John Langlands, Newcastle, 1800.
Weight: 25.9 oz. Sale price: $3122.90. Per oz: $120.57.

3). London: Sotheby's Lot #486 on 2/4/88
George III tankard by John Langlands, Newcastle, 1772.
Weight: 20.6 oz. Sale price: $2762.10. Per oz: $134.08

There is a 10% spread between the p.p.o of 2 & 3; a 44%
spread between 3 & 1; and a 50% spread between 2 & 1.

MOORE 2
1). New York: Christie's Lot # 387 on 4/29/87
George 3 tankard by J. Marsh or J. Moore, London, 1765.
Weight: 27 oz. Sale Price: $3,520. Per oz: $130.37.

2). London: Sotheby's Lot # 244 on 12/14/89
George III tankard by John Moore, London, 1761.
Weight: 24 oz. Sale Price: $3,366.00. Per oz: $140.25

There is a 7% spread between the p.p.o. of 1 & 2.

PAYNE 2
1). New York: Christie's Lot # 204 on 4/12/88
George III Tankard by John Payne, London, 1760.
Weight: 38 oz. Sale Price: $6,600. Per oz: $173.00

2). London: Christie's Lot #174 on 10/24/90
George III tankard by John Payne, London, 1763.
Weight: 26 oz. Sale Price: $4,670.60. Per oz: $179.63.

There is a 3% spread between the p.p.o. of 1 & 2.

ROBINS 2
1). London: Sotheby's Lot # 396 on 11/1/90
George III tankard by John Robins, London, 1786.
Weight: 32.8 oz. Sale Price: $3,349.50. Per oz: $102.10

2). London: Christie's Lot 117 on 5/23/90
George III tankard by John Robins, London, 1796.
Weight: 23 oz. Sale Price: $2,772. Per oz: $120.52.

There is a 15% spread between the p.p.o. of 1 & 2.

WHITE 2
1). New York: Sotheby's Lot # 188 on 10/12/90
George III Tankard by Fuller White, London, 1761.
Weight: 29 oz. Sale Price: $4,675.00. Per oz: $161.20

2). Scotland: Sotheby's Lot #281 on 8/28/89
George III tankard by Fuller White, London, 1764.
Weight: 23.25 oz. Sale price: $3122.90. Per oz: $134.31

There is a 16.6% spread between the p.p.o. of 1 & 2.

WRIGHT 3
1). London: Sotheby's Lot # 170 on 2/28/91
George III tankard by Charles Wright, 1772.
Weight: 32 oz. Sale Price: $4,412.10. Per oz: $137.87

2). Monaco: Sotheby's Lot # 914 on 12/4/89
George III tankard by Charles Wright, London, 1762.
Weight: 30.7 oz. Sale price: $5053.65. Per oz: $164.61

3). Scotland: Sotheby's Lot # 277 on 8/28/89.
George III tankard by Charles Wright, London, 1774.
Weight: 45.5 oz. Sale price: $7348.00. Per oz: $161.49.

There is a 1.8% spread between the p.p.o. of 2 & 3; a
14.6% spread between 3 & 1; and a 16.2% spread between
1 & 2.

N.B. The mean of all spreads, excluding the two high
percentages from Langlands, is 10.2%.

these drastic percentage increases are not reflected elsewhere in the silver market. Nor are they indicative of the antiques market in general. Nor are they indicative even if we factor in an annual inflation rate of 4%. Confirming the fact that there is nothing extraordinary about number 1 that would justify an exceptional price is the auction house's estimate of $2,000 to $2,500; or an $81.63 to $102.04 price per ounce. Therefore, it is reasonable to assume that the price is an aberration. Thus, the first advantage of a 33.3% standard is that it reveals possible aberrations.

Now the question is: what would account for an aberration? Well, there are many reasons. Often, one can only speculate. For example, auctions are usually made up of a mix of 60% dealers and 40% public ("Slow Market ..." 18). When the dealers bid on an item, the values usually stay within a reasonable spread. For one thing, the dealers, since they must often buy at auction, are not anxious to drive up the market. Secondly, because they are knowledgeable, they know the approximate range of value for an item. They are not inclined to pay more for what they could obtain a comparable for. As Dr. Richard Rickert succinctly put it in his Law of Substitution: "No one will pay more for a property (or good or service) than what they would have to pay for an equally desirable substitute" (Rickert, Glossary 52). The wild card in any auction is

the presence of the public. For the most part, they are not as knowledgeable as the dealers. There are exceptions. More often than not, their purchases are influenced by their emotions. As a result, when the public does enter into the bidding process, they tend to drive the prices upwards. A dealer can often do the same when he is contracted by a private buyer to secure a particular piece for the individual's collection. Since the dealer is not buying for his own stock, and his commission is assured, he may often bid above what he himself would be willing to pay for the piece.

SPOTTING ABERRATIONS.

It is often not possible for the appraiser, who is under the constraints of a limited fee, to make inquiries as to who paid what high price for what reason. Although such inquiries may be desirable, they are not always practical. By applying the 33.3% standard to groups of comparables, one can determine the reasonable parameters of value. Thus anything that goes above the upper value limit may be said to have sold for too much. Anything that sold below the value limit may either have been a bargain or something may have been wrong with it; and it was not noted in the auction catalog. In other words, the 33.3% standard separates or eliminates potentially false figures from consideration.

SECOND ADVANTAGE OF A 33.3% PARAMETER STANDARD.

The second advantage of the 33.3% standard is that it enables an appraiser, as well as a potential buyer, to estimate or determine the potential parameters of the market value for a particular item when only a few comparables are available for analysis. This confronts one of the primary drawbacks faced by the silver appraiser. Ideally, at least 15 comparables should be used for any market analysis. This follows the criteria laid down by statistics. Unfortunately, sales data for a large range of items in the antiques trade do not readily exist in a published form outside of the auction house sales results. Often, sales data from the auction houses may be limited to one or two comparables over a long period of time. Table 4G shows an approach for estimating the parameters of any given item based upon one or more comparables. Ideally, at least three comparables should be used for this approach.

THIRD ADVANTAGE OF THE 33.3% STANDARD.

The third advantage of the 33.3% standard is that is marks out a legitimate range of value. It also provides a meaningful structure for the price per ounce method to operate within. The price per ounce method will produce figures that occur within a range. It does this because it works with data derived from the market. It reflects the actual market. The advantage of

A. FORMULA FOR CREATING A 33.3% VALUE SPREAD.
   (Determining the parameters of value).

The purpose of creating a spread is to determine the
value range of any given item of silver. This is
helpful to the appraiser who must advise his client of
the high and low of the market. It is also of benefit
to the dealer who can determine if the price of an
object is within an acceptable range for purchase, e.g.
at auction.

STEPS:

1. Determine price per ounce for each comparable by
dividing the sale price by the weight in ounces. The
more comparables available, the more accurate the
spread. However, this approach is designed to be used
with at least two comparables and preferably with at
least three. One comparable may be used but with
diminished and questionable accuracy.

2. Test the comparables using the 33.3% standard. All
three comparables should fall within a 33.3% range of
one another. For example, if the difference between A
(the lowest price comparable) and B (the mid-priced
comparable) is 10%, the these figures are acceptable.
Likewise if C (the highest priced comparable) falls
within the range of 33.3% of A, then it too is
acceptable. However, if C is greater than 33.3% it
should be discarded. The medium figure, in this case B,
acts as a check to which figure, A or C, is the most
accurate. If B is closer to C, say a 10% spread, and A
is greater than 33.3% from C, then A should be
discarded.

3. The next step is to determine an average price per
ounce to serve as a base price. This is done by adding
each price per ounce figure together and dividing it by
the number of comparables.

B. DETERMINING A HYPOTHETICAL 33.3% PARAMETER:
   PROCEDURE FOR ONE OR TWO COMPARABLES.

Let us suppose that the sales result of only one
comparable to our subject property is available. If we
want to determine the approximate value parameter, we
can use the following formula to determine the high and
low end of the value spread. Let us assume that the one
comparable we have data on has a price per ounce of
$160.00. This figure will serve as the mean.

1. To determine the lowest end of a hypothetical 33.3% spread, use the following formula.

Price per ounce of the mean x .803 = lowest end of the value spread.

MPPO x .803 = LEVS

For example; $160.00 x .803 = $128.00. $128.00 is our lowest price per ounce. It is approximately 16.6% off the mean of $160.00.

2. To determine the highest end of a hypothetical 33.3% spread, use the following formula.

Price per ounce of the mean x 1.197 = highest end of the value spread.

MPPO x 1.197 = HEVS

For example; $160.00 x 1.197 = $191.52 or $192.00. $192.00 is our highest price per ounce. It too is approximately 16.6% off the mean of $160.00.

3. The spread can be checked using the following formula.

The low end of the value spread (LEVS) is divided by the high end of the value spread (HEVS). The resulting percentage is subtracted from 1 (one). This yields the final percentage spread.

LEVS - HEVS = %R - 1 = %F

For example; $128.00 divided by $192.00 = 0.6666 (or 0.667). 0.6666 is subtracted from 1. This equals 33.3%, which is our standard parameter.

4. The high and low end figures of the value spread can also be checked and or determined using the following formulas.

a. LEVS x 1.50 = HEVS

For example: $128.00 x 1.50 = $192.00. The percentage spread can be checked using the formula in #3.

b. HEVS x .67 = LEVS

For example: $192.00 x .667 = $128.00. Again the percentage spread can be checked using the formula in #3.

5. If two comparables are available, a combination of the techniques and formulas outlined above in sections A and B can be employed to determine the hypothetical parameters.

the method is that it enables information derived from the market to be broken down, or dissected for easier analysis. The range of the figures derived from the market should ideally be as tight as possible. But often times they are not. Therefore, it is necessary to mark out the limits or parameters of that range and justify them. This paper has done so (see above: Justifying The Parameters of Value). By doing so, a solid framework is built that takes away the arbitrariness of the differing price per ounce figures; and provides them with a meaningful structure for interpretation. Table 4F gives the price per ounce (p.p.o.) of all the artisan made comparables in the data gathered from 1987 to 1990. Along with the p.p.o.'s are the percentage spreads. Except in the case of Langlands, which has been previously discussed, the variations range from 3% to 16.6%. All of them are well within the 33.3% standard. Even the 16.6% spread is marginal (see Table 4C).

CONCLUSION TO SECTION IV.

Thus it has been shown that artisan made silver can be valued on a per ounce basis. That is, it can be valued on the same basis as modern machine made silver using a weight valuation methodology. This paper has demonstrated and proved that it is possible to convert a sale price into a price per ounce figure using a

weight valuation methodology. It has shown that an average price per ounce figure can be derived from a group of comparables in order to obtain a base price. It has also demonstrated that price aberrations can be revealed and eliminated, and the base price confirmed, supported, and defended by using a 33.3% standard guideline. By establishing a methodology for deriving a base price, it has been possible to overcome the main drawback to using Luddington's approach to valuation. It is now possible to derive a base price using market data rather than dealer asking prices, and to which deductions or additions in value can be applied. In short, this paper has proven that antique or artisan made silver can be valued on a price per ounce basis using a weight valuation methodology.

V. OPPOSITION AND RESPONSE.

THE THREE OBJECTIONS.

There are three main objections raised by the silver trade to this thesis. The first is that the value of any silver object has no relation to its silver or metal value which is measured by its weight. The second objection is that even if one can value manufactured silver according to weight, it is not possible to value antique or artisan made silver in the same manner. These pieces should be valued as individual works of art with no reference to the value of the materials comprising them. The third objection is that such a method, even if it works, is not needed by the educated appraiser or dealer who is already familiar with market values (Weller, 10 Dec. 1992). Each of these objections should be responded to.

RESPONSE TO THE FIRST OBJECTION.

The first objection to this thesis may be stated as follows: the value of any silver object has no relation to its silver or metal value which is measured by its weight. The error in this assertion lies in the assumption that a weight valuation methodology is limited to merely reflecting a scrap metal value. It assumes that a weight value is inexorably tied to a commodity metal market price. This, as the paper has

shown, is a narrow and limited view of the potential of a weight valuation methodology. The limitation exists more in the minds' of the opponents than in the nature of the methodology. The solution to this problem lies simply in allowing weight to reflect a sale price rather than a silver commodity price. In other words, when a weight valuation methodology is tied to a market price rather than a commodity price, it can reveal important and useful information about market values. A weight valuation methodology is versatile and practical enough that it can be applied to both areas depending upon the information one wishes to obtain. The objection would be more appropriate if it was more specific. That is, a weight valuation methodology applied to determine a scrap value does not reveal appropriate information as to the market price of a silver object. The collateral to this is that a weight valuation methodology applied to a market sale price will reveal appropriate information about market values. This paper has done so, and shown the latter to be true.

RESPONSE TO THE SECOND OBJECTION.

The second objection is that even if one can value manufactured silver according to weight, it is not possible to value antique or artisan made silver in the same manner. These pieces should be valued as

individual works of art with no reference to the value of the materials comprising them. The assumption here is rather elitist. It attempts to put art on the plane of mystery and religion. Just as the study of comparative religions has subjected religious literature to methods of scientific inquiry (a task that has revealed important information); decorative arts, such as silver, can also be subjected to scientific inquiry and methodology. A weight valuation methodology is scientific in so far as it takes what is measurable, namely weight, and uses it to breakdown a price for easier analysis. Valuable information results. Let us take the following example. It is often assumed in the trade that George III tankards made for the nobility often sell for more than those made for the middle classes. One of the distinguishing features of these aristocratic tankards, besides exhibiting finer workmanship, is that they often weigh up to 1/4 to 1/3 more than the common tankards. The weight valuation methodology reveals that this is an unfounded assumption, perhaps based more on a romantic affection for the aristocracy than upon market fact.

A good example of this can be found on Table 4F. Here we have two sales of Georgian tankards by John Payne. Most appraisers would look at the 1988 sale price of $6,600.00 and note the weight of 38 oz. They would conclude that a heavier piece would go for more.

They would confirm this by seeing that a lighter weight piece of 26 oz. sold two years later for less money in London at $4,670.60. Thus they would conclude that heavier weight tankards sell for more than the lighter ones. Actually they would probably maintain that weight as a factor of value was not considered, since silver is so inexpensive. The primary reason for the price difference, they would maintain, is that the heavier weight tankards were usually made for the nobility; they exhibit better quality.

However, when we break it down into a price per ounce, we see that the heavier weight tankard actually sold for a lower price per ounce ($173.00 per ounce) than the lighter weight tankard; which sold at the higher price per ounce of $179.63. Thus it is not the case that the heavier weight tankard is more valuable on a per ounce basis than the lighter. The explanation that the heavier weight pieces are more valuable because they exhibit finer quality does not hold water. If they sell for more, it can also be maintained that it is because they weigh more. Indeed, a close examination of all the comparables listed in Table 4A show that this is the case. By applying the 33.3% standard to check and balance, we see that there is in fact only a 3% price per ounce price difference between the two tankards by Payne. Thus one can make the determination, that on the average, heavier weight

tankards will go for approximately the same price for ounce as the lighter weight tankards. Since the higher per ounce figure for the 26 oz. tankard was realized in 1990, it is reasonable to assume that had this same piece sold in 1988, it more than likely would have sold for the same price per ounce as the 38 oz. tankard. The 3% difference between the two possibly being accounted for by the existence of inflation. It is also reasonable to assume that by using a government inflation rate figure, one could determine the average price per ounce of a tankard by Payne for 1991 or even 1992 without the necessary sale price information immediately at hand.

RESPONSE TO THE THIRD OBJECTION.

The third objection is that such a method, even if it works, is not needed by the educated appraiser or dealer who is already familiar with market values (Weller, 10 Dec. 1991). It should be noted that at this period of time, many silver appraisers are also dealers. First of all, this paper is not maintaining that this is the only method by which one may value silver. It is one method, and a very accurate and accessible method. Furthermore, educated dealers such as Frank Hesselsohn have admitted that he does use this method on occasion for determining a value on antique or artisan made silver when information on an exact

comparable is not available (Hesselsohn, 15 July. 1991). The root of the objection is really an objection to the accuracy and accessibility of the method and the important information it can reveal.

It is perhaps true that knowledgeable appraisers and dealers have no need of such a method to gain familiarity with the market. Indeed, the accuracy and accessibility of this method must seem threatening. Recently, a P.B.S. program called Legacy made the interesting statement that the Chinese realized that "power lies in the control of knowledge." One way to control a field is to restrict access to the body of knowledge in that field. Certainly, this was one of the functions of the medieval guilds. If a weight valuation methodology is easy and accessible, and yields accurate information, this poses a problem for the appraiser/dealer. It enables greater competition in the field. With more competition in the field, there is less money. Furthermore, such a methodology is one step closer towards the development of a tighter grading and pricing system for antique and artisan made silver. The example of the diamond grading system shows that two things happen when such a thing is in place. First of all, it is far easier to train knowledgeable appraisers. Secondly, knowledgeable appraisers, and/or dealers, using an accurate and tight grading system eventually results in tighter pricing. Tighter pricing

results in lower profit margins. Thus the real objection to this methodology is not that existing appraisers/dealers don't need it. The real objection to this method is the amount of knowledge and control it opens up to those not already in the silver trade. The bottom line is that the general use of a weight valuation methodology ultimately threatens profits.

CONCLUSION TO SECTION V.

In conclusion, this paper has shown that a weight valuation methodology is not limited to performing scrap valuations. It can perform market valuations as well. Secondly, it has been shown that antique and artisan made silver can be valued on a price per ounce basis using a weight valuation methodology. Finally, it has been shown that such a methodology is but one valid method of valuing silver. That it is used by knowledgeable dealers (e.g. Hesselsohn), and that it can yield accurate information that is readily accessible to those who are not primarily engaged in the silver trade.

VI. CONCLUSION AND FURTHER RECOMMENDATIONS.

CONCLUSION.

It has been demonstrated that weight is a legitimate factor of silver value along with beauty, rarity, and durability. This paper centered on a descriptive statistical analysis of available market data. This data represents an educated market norm; since educated buyers are the norm of this market. The statistical, logical, historical and market proofs derived from this and other data, opened up the possibility of using a weight valuation methodology for the valuation of antique and/or artisan made silver. Because weight is the most measurable of all the factors of silver value, it can take on the role of expressing the monetary value of the other factors using a price per ounce approach. This is similar to the factors of a diamond's value, such as beauty, durability, and rarity, being expressed through a per carat price.

This paper demonstrated that a weight valuation methodology is a viable approach to the valuation of all silver, whether machine or artisan made. It has demonstrated, using the example of George III tankards, that antique or artisan made silver can be valued on a price per ounce basis using such a methodology within the confines of a 33.3% parameter. It has shown that a

precedence for such a 33.3% standard exists in the jewelry trade. A trade in which many silver items are sold. It has demonstrated that a 33.3% standard can effectively act as a check and balance to the accuracy of a weight valuation methodology.

It has been demonstrated that a weight valuation methodology is flexible. It can be used to derive a cost, market, or a scrap/liquidation value; when it is properly applied to the correct set of figures.

The paper has also demonstrated that a weight valuation methodology can provide the appraiser with a base price based upon actual sales data of market comparables rather than upon dealer asking prices. The ability of this method to provide a base price overcomes the obstacle presented by Luddington in failing to provide a method for determining such a price. The advantage to the appraiser is that with the ability to determine a base price, Luddington's series of deductions and additions to value can be employed. In effect, it makes Luddington's approach to appraising silver viable and accessible.

FURTHER RECOMMENDATIONS.

The establishment of a weight valuation methodology as a valid valuation approach is but one step towards the development of a more complete and concrete system of silver appraising. This paper offers

the following recommendations towards the completion of this process.

THE NEED FOR PUBLISHED DATA.

The successful implementation of a weight valuation methodology requires accurate published data. There is a pressing need for records of sales that exist outside the major auction houses. More importantly, there is a need to include the weight of the silver item along with its final sale price. Until that information is gathered on a regular basis, a successful and statistically tested application of a weight valuation method will be limited in its scope.

A STATISTICAL APPROACH TO EVALUATION.

This paper has demonstrated one statistical approach to value in presenting the weight valuation methodology. What has not been done is to apply statistics towards the development of a tested method of evaluation. Dr. Fred Reed of the University of Montana has been helpful in developing the following approach.

PROCEDURE.

A sample of George III tankards for statistical analysis could be drawn using two procedures. First, tankards that are known to be available for comparison

and handling by experts would be obtained for judgment. Even though these tankards would not necessarily constitute a random sample of tankards, the use of a linear regression statistical technique is vigorous enough to compensate for any violation of sampling. Thus the sampling suggested here will not invalidate the findings.

Secondly, in the event that "live" samples of George III tankards are not readily available, photographs could be obtained. The photographs should be full size and mounted on posterboard in an attempt to standardize them as much as possible. In either procedure, each tankard should be numbered for identification.

Once the sampling has been organized, judges should be found. These judges should consist of a number of appraisers and antique dealers who are considered experts in Georgian tankards. These experts would be asked to provide the evaluations that would be used in the statistical analysis.

METHOD OF EVALUATION.

There are three methods of obtaining values for the qualitative elements (Table 3A) comprising the value of the tankards. All three will be offered since the use of linear regression will work with any of them.

DIRECT NUMBER ASSIGNMENT.

One tankard would be used as a standard against the others are to be judged. The selection of which tankard to use is not crucial. However, it should possess all of the average qualities of the elements or characteristics of value. The average tankard will be called the "criterion."

Each judge will be asked to assign a value between 1 to 10. The criterion tankard will be scored as a 5 in regard to the element to be judged. For example, a judge may take tankard number 3 and assign a numerical value to its design, quality of craftsmanship, patina, age, maker, wear, etc. Each of the judges will participate in this process. The statistical approach does not require that the judges agree on the numbers assigned. What should be used is an average of the values assigned by the judges as the values for each of the qualitative elements.

USE OF ORDINAL VALUES.

Ordinal values may also be used to describe the qualitative elements of the tankards. Each judge should be asked to judge each tankard on its design, quality of craftsmanship, and etc. (see Table 3A). The judges could use the terms Excellent, Very Good, Average, Fair, and Poor. Each of these terms should have a number assignment associated with each ranking or

grading. For example, the grade of Excellent could be assigned number 1, Very Good is a #2, and so forth. The statistical process of linear regression can be used here as with the first technique discussed above.

USE OF PAIRED COMPARISONS.

The method of paired comparisons uses only comparisons between the objects to be valued. It does this in order to establish a numerical scale of values for each of the qualitative elements in any two objects (Edwards). In this case, each photograph would be submitted to the judges. The judges would be asked to evaluate them in pairs. For example, judge A could take tankard numbers 1 & 7 and compare them. He would indicate which had the better design, was more rare, in better condition, and so on. Edwards provides a scoring system for recording and analyzing the judgments. This procedure would provide a reliable numerical value for each tankard in regards to the qualitative element in question.

ANALYSIS.

Once the information has been gathered from the judges, it can be subjected to statistical analysis. The statistical analysis would use the method of multiple regression as described in Blalock. Essentially, the procedure requires that one enters

into a statistical computer program the values derived for each of the tankards' qualitative elements (the dependent variable), such as design, age, wear, condition, etc. The computer program would provide the proportion of the tankards' value that was attributable to each of the qualitative elements (Reed).

CONCLUSION.

The advantage of this information is two fold. First of all, it will test the accuracy of Luddington's deductions and place them on a firmer footing. If necessary, sound corrections to the percentage deductions can be made where they conflict with the statistical information. Secondly, it will provide a useful and concise method of silver grading or ranking. Once this is obtained, the combination of a statistically tested method of evaluation used in conjunction with a weight valuation methodology would become the definitive and primary system of silver appraising.

BIBLIOGRAPHY.

American Institute of Real Estate Appraisers. The
        Appraisal of Real Estate. 9th ed. Chicago:
        American Institute of Real Estate Appraisers,
        1987.

Blair, Claude, ed. The History Of Silver.
        New York: Ballantine Books, 1987.

Blalock, Hubert L. Jr. Social Statistics. New York:
        McGraw-Hill, 1960.

Bohan, Peter, and Philip Hammerslough. Early
        Connecticut Silver, 1700 -1840. Middletown,
        Connecticut: Wesleyan University Press, 1970.

Buxton, Marlin III. Retail jeweler, Missoula, MT.
        Personal interview. 20 Mar. 1991.

Came, Richard. Silver. London: Octopus Books, 1972.

Cohen, H.L. Official Guide To Silver & Silverplate.
        1st ed. New York: House of Collectables, 1974.

Edwards, Allen L. Techniques of Attitude Scale
        Construction. New York: Appleton-Century-Crofts,
        Inc., 1957.

Ensko, Stephen G.C. American Silversmiths and Their
        Marks. New York: Dover Publications, 1983.

Fennimore, Donald L. Silver & Pewter. New York:
        Alfred A. Knopf, 1984.

Green, Robert Alan. Marks of American Silversmiths.
        Key West: Robert Allan Green, 1984.

Harlyn Products. Palomar Keystone Price List.
        Los Angeles: Harlyn Products, 1 April. 1991.

Harlyn Products. Palomar Triple Keystone Price List.
        Los Angeles: Harlyn Products, 1 April. 1991.

Hesselsohn, Frank. Antique silver dealer, Chesterfield,
        MO. Telephone interview. 15 July, 1991.

Holland, Margaret. The Illustrated Guide To Silver.
        London: Peerage Books, 1987.

Hood, Graham. American Silver. New York: Praeger,
        Publishers, 1971.

Kant, Immanuel. The Critique of Judgement. Oxford: The Clarendon Press, 1969.

Kukuk, Chris. Table 3B on the relation between price and weight. St Louis. 1992.

Luddington, John. Starting to Collect Silver. Woodbridge, Suffolk: Antique Collectors' Club, 1988.

MacKay, Charles. Extraordinary Popular Delusions And The Madness of Crowds. New York: Farrar, Straus and Giroux, reprint of 1932 edition.

Mayo, Marcia. Telephone interview. 17 June. 1990.

Midwesterling. Sterling Flatware Buy List. Kansas City: Midwesterling, 1 Sept. 1990.

Miller, Judith and Martin. Miller's International Price Guide. 1990 Edition. New York: Viking Penguin, 1989.

M.K. Diamonds and Jewelry. Illustration for Table 2F. National Jeweler 1 Jan. 1992: 51.

Murray, Peter and Linda. A Dictionary of Art & Artists. Baltimore: Penguin, 1968.

Newman, Harold. An Illustrated Dictionary of Silverware. London: Thames and Hudson, 1987.

Ramsey, L.G.G., ed. Antique English Silver And Plate. Bungay, Suffolk: The Chaucer Press, 1962.

Rickert, Richard. Appraisal And Valuation, An Interdisciplinary Approach. Washington, D.C.: American Society of Appraisers, 1987.

Ridley, Tom. Silver dealer, Kansas City, MO. Telephone interview. 17 Oct. 1991.

Reed, Fred W. "Establishing Weight As A Factor In Value." Lolo, MT. 1992

Schwartz, Jeri. Official Identification And Price Guide To Silver And Silver-plate. 6th ed. New York: House of Collectibles, 1989.

"Slow Market? Not at Sotheby's and Christie's." Jewelers' Circular Keystone Dec. 1990: 18.

Southern, R.W. The Making Of The Middle Ages. New Haven: Yale University Press, 1973.

Stuller Settings. <u>Confidential Price List</u>. Lafayette: Stuller Settings, 1 Nov. 1989.

Stuller Settings. Illustration on Table 2D. <u>Stuller Settings</u>. Lafayette: Stuller Settings, 1989 : 198.

Tebbutt, Melanie. <u>Making Ends Meet. Pawnbroking & Working-Class Credit</u>. New York: St. Martin's Press, 1983.

Thurstone, L.L. "A Law of Comparative Judgement." <u>Psychological Review</u> 34 (1927): 273286.

Thurstone, L.L. "The Method of Paired Comparisons for Social Values." <u>Journal of Abnormal Social Psychology</u> 21 (1927): 384-400.

Wallace, Margaret S. <u>Continental Ceramics At Auction: A Statistical Analysis Of The Effects Of Property Designations Upon Final Sale Price</u>. St. Charles: Lindenwood College Culminating Project, 1989.

Waters, Linda. Telephone interview. 8 Oct. 1991.

Watson, Lucilla. <u>Understanding Antiques</u>. New York: Viking Penguin, 1987.

Weller, Michael. Antique silver dealer, San Francisco. Telephone interview. 28 June. 1991.

Weller, Michael. Antique silver dealer, San Francisco. Written comments on thesis paper. 10 Dec. 1991.

Wills, Geoffrey. <u>The Guinness Book Of Silver</u>. Enfield, Middlesex: Guinness, 1983.

Wyler, Seymour D. <u>The Book Of Old Silver, English, American, Foreign</u>. New York: Crown, 1975.

BIBLIOGRAPHY OF AMERICAN & EUROPEAN AUCTION CATALOGUES.

AMERICAN ACTION CATALOGUES FOR 1987-1990
NOTING SALES FOR ANTIQUE GEORGE III SILVER TANKARDS.

Christie's. Fine English and Continental Silver,
    Objects of Vertu and Russian Works of Art.
    New York: Christie's, 29 April. 1987.

Christie's. Fine English and Continental Silver and
    Objects of Vertu. New York: Christie's, 12 April.
    1988.

Sotheby's. Fine English and Continental Silver.
    New York: Sotheby's, 12 Oct. 1990.

INTERNATIONAL AUCTION CATALOGUES FOR 1987-1991
NOTING SALES OF ANTIQUE GEORGE III SILVER TANKARDS.

Christie's. English and Continental Silver and Objects
    of Vertu and Fine Portrait Miniatures. London:
    Christie's, 17 & 18 Mar. 1987.

Christie's. Important English and Continental Silver,
    Objects of Vertu and Enamels. London: Christie's,
    20 May. 1987.

Christie's. English and Continental Silver, Objects of
    Vertu and Fine Miniatures. London: Christie's,
    8 July. 1987.

Christie's. English and Continental Silver, Objects of
    Vertu. London: Christie's, 14 Oct. 1987.

Christie's. Important English and Continental Silver
    and Objects of Vertu. London: Christie's, 14 Dec.
    1988.

Christie's. Important English and Continental Silver
    and Objects of Vertu. London: Christie's, 24 May.
    1989.

Christie's. The Collection of Sir Leon and Lady Trout,
    Everton House, Everton Park, Brisbane, Australia.
    London: Christie's, 6 & 7 June. 1989.

Christie's. English and Continental Silver and Objects
    of Vertu. London: Christie's, 12 July. 1989.

Christie's. Important Silver and Objects of Vertu.
    London: Christie's, 6 Dec. 1989.

Christie's. Important Silver and Objects of Vertu.
    London: Christie's, 23 May. 1990.

Christie's. Important Silver and Objects of Vertu. London: Christie's, 24 Oct. 1990.

Sotheby's. Watches, Scientific Instruments, Clocks, Silver, Bronzes, Works of Art, Paintings, Miniatures, Vertu and Jewellery. Sussex: Sotheby's, 28 May & 3 June. 1987

Sotheby's. English and Continental Silver. London: Sotheby's, 7 & 16 July. 1987.

Sotheby's. Furniture, Bronzes, Works of Art, Miniatures, Fans, Vertu, Jewellery, Watches, Clocks, Silver and Paintings. Sussex: Sotheby's, 21 & 28 July. 1987.

Sotheby's. Important English Silver. London: Sotheby's, 19 Nov. 1987.

Sotheby's. Important English and Continental Silver. London: Sotheby's, 4,5, & 15 Feb. 1988.

Sotheby's. Wemyss Ware, Silver and Jewels, Scottish and Sporting Paintings, Drawings and Watercolours. Gleneagles, Perthshire, Scotland: Sotheby's, 28 & 29 Aug. 1989.

Sotheby's. Argenterie Europeene Objets de Vitine. Monaco: Sotheby's, 4 Dec. 1989.

Sotheby's. English and Continental Silver. London: Sotheby's, 14 Dec. 1989.

Sotheby's. Silver, Portrait Miniatures and Objects of Vertu. London: Sotheby's, 1 Mar. 1990.

Sotheby's. Silver and Jewels, Wemyss Ware, Scottish and Sporting Paintings, Drawings and Watercolours. Gleneagles, Perthshire, Scotland: Sotheby's, 27 & 28 Aug. 1990.

Sotheby's. Silver, Portrait Miniatures and Objects of Vertu. London: Sotheby's, 1 Nov. 1990.

Sotheby's. Important Silver, Portrait Miniatures and Objects of Vertu. London: Sotheby's, 28 Feb. 1991.

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Born: April 3, 1952 in Seattle, Washington.

Academic Schools:

Sacred Heart Elementary, Spokane, Washington 1958/1960.

Hutton Elementary, Spokane, Washington 1960/1964

Sacajawea Junior High, Spokane, Washington ..1964/1966

Gonzaga Preparatory, Spokane, Washington 1966/1970

University of Montana, Missoula, Montana 1970/1975

Bachelor of Arts, Magna Cum Laude (1981).

Major: Religious Studies. Minor: Philosophy.

Lindenwood College, St. Charles, Missouri....1989/1992

Master's degree in Valuation Science.

Trade Schools:

Gemological   Institute   of   America,   Santa   Monica,

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Christie's Fine Arts, London England..........1987/1988

Positions:

Staff Gemologist, G.I.A. Gem Trade Lab, Los Angeles.

Jewelry and Silver Appraiser, Missoula Gold & Siver,

    Missoula, Montana.

Jewelry and Silver Appraiser, Mendenhall Jewelers.
Portland, Oregon.

Jewelry and Silver Appraiser, C.M. Buxton, Co.,
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Professional Trade Organizations:

Senior Member, National Association of Jewelry
Appraisers. Designation: National Gem and
Jewelry Appraiser.

Member, British Society of Jewellery Historians.