

Taxonomy of Persian Rugs

From the Iranian Cultural and Information Center

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Introduction

This taxonomy is designed to organize and offer electronic searchable access to collections of Persian rugs and carpets. In this example, the taxonomy is applied to the rugs represented in the image collection found in the Gallery section of the website of the Iranian Cultural & Information Center (<http://www.persia.org>); however, the taxonomy is designed to be applicable to other collections of Persian rugs as well. The taxonomy is targeted for use by English-speaking “advanced connoisseurs,” meaning people interested in and already holding some knowledge about the subject. Examples of users might include private or professional collectors, purchasers, auction houses, museum staff and educated patrons, or scholars. The taxonomy currently focuses specifically on knotted Persian rugs, since they are considered the “largest and most important group,” (Liebetau 1962), but could possibly incorporate future expansion into the five main groups as detailed by Liebetau: Iranian (Persian), Turkoman (Turkoman, Afghan, Baluchistan of Central Asia); Caucasian (Russian); Turkish (Anatolian) and the Indian, Pakistani and Chinese group. This expansion would be logical, since the influences between these groups makes it difficult to identify the origins of rugs; many designs, patterns and techniques are borrowed and passed from culture to culture. An alternate taxonomy, as suggested by the same author, could be by “nomads, or by semi-nomads stationary in winter, or in workshops by craftsmen leading a settled life” (p. 11). However, he goes on to say that place of origin is the most common way of classifying rugs.

Search method and interface

A sample search might be by a collector who wishes to educate herself about rugs from Esfahan before making a major purchase of this type. She might want to know generally what the knot density of a good quality rug from this area would be, and what the typical colors and patterns are. A student of oriental rugs might wish to compare all rugs using the medallion pattern and see how they differ from region to region.

This taxonomy is designed to be stored in a relational database for use on the World Wide Web. Once hosted in a web environment such as <http://www.persia.org>, searchers will be able to search for rugs within the collection through any or all of the facets. The search interface will theoretically consist of a box with several dropdown boxes, similar to the example below. Choice of one facet may limit the choices in other facets, since some may be contradictory. Please note that contrary to this illustration, keyword search will not be possible, as the taxonomy consists only of preferred terms associated with each facet. Each facet will be represented by a “pick list” or drop down box, much like the last two boxes on this example from a museum website:

Advanced Search

Search through 85,000 images of the permanent collection of FAMSF.

The image shows a search interface with the following elements:

- Keywords:
- Artist:
- Country:
- Period:
- Sort:
- Search button:

The top search box (1) will be a drop down menu containing a unique rug identification number or name, in case the searcher wants to go straight to an already identified rug image. The other boxes will also be drop down boxes offering all possible allowed choices under each particular facet, given other facet choices made. Box 2 will be “Manufacturer of rug,” offering the choices of country or historical region (i.e., Persia), and a second manufacturing facet will offer tribe, city or region. Rugs are often divided into just tribal, city or urban workshop classifications, but our classification system offers tribe, city, or region (including province), since any or all of these categories of names often lend themselves to types of rugs.

Rug identification number

Rug #1

Rug #2

Manufacturer or rugs (by country or historic region)

Persia (possibly to expand to other countries)

Tribe

Afshari

Bakhtiari

Esfahan_Mir, etc.

For clarity, if names refer both to a region and a city, a qualifier will be attached to the choice under the city or region facet.

Other searchable facets include size; color; patterns, designs and motifs; and rug components.

Once facets are selected, the database will display thumbnail images of the rugs that match these characteristics. Alternatively, a message will display asking user to broaden the search (eliminate criteria) if none are found. Thumbnails will present links to larger views of the rugs.

Requirements Analysis

Literature review

User groups.

Even the most basic, introductory articles about Oriental rugs demonstrate the complexity of the subject. Many websites offer introductory overviews intended for the general populace or the curious person needing only basic information. By narrowing the focus to Persian rugs, the specificity of available literature automatically leads to an audience of increased knowledge.

Itting (1984)'s survey of major Persian carpet studies is clearly directed at scholars with more investment than the ordinary citizen. Despite the overview survey format, the article assumes the reader has more than just general carpet knowledge. Another article found on the cultural evolution of Persian region textiles (including rugs) is clearly highly scholarly in nature, targeting researchers with highly specific knowledge (Tehrani and Collard 2002).

Many journals and articles regarding rugs were held or written by museums and scholarly institutions, indicating these organizations as interested users.

Collectors and purchasers are another large user base when it comes to oriental and Persian rugs. Much information can be gleaned from the number of auction catalogs on the subject. The descriptions in the catalogs indicate the potential buyers generally have more than a basic passing interest in the materials. Detailed descriptions not only assume a higher level of user knowledge, but also indicate the types of characteristics that potential buyers look for in their rugs.

Existing retrieval systems.

No evidence of existing retrieval systems for oriental or Persian rugs was found. This is attributable to a number of factors. Retrieval systems may be proprietary and not currently accessible to the public. Where collections include more than just carpets, such as some museums and auction houses, a more general system is used that encompasses all of the various objects in the collection. However, this really eliminates any chances of specificity for rugs in the collection. Other collections simply utilize a very linear method of organization—not a retrieval system at all, or perhaps a hierarchical set of links by region and locations, such as the current index used by www.persia.org, which organizes the rugs by region, then by tribe or style, except for a small group of antique rugs of which the region is not identified. This type of listing allows for the specific rug characteristics to be included, but it emphasizes browsing and makes searching by anything but region impossible.

Existing taxonomies.

Current classification for rugs is highly varied and debatable. It seems that each collection has a unique take on rug classification. Linley (n.d.) says “there appears to be a virtually infinite number of taxonomies” for Oriental rug classification and identification. Some emphasize main classification by region of creation/origin, while others place emphasis on the design or motif of the carpet.

Other areas of interest include color, materials, and construction. While geographical region and style are the top facets, quality of the rug (authenticity, colors, construction, knot density, pattern, design, etc.) is what is sought after by collectors, according to an interview with an avid Islamic textile collector; however, this is subjective and personal (R. Indictor, personal conversation, November 17, 2007). While quality might be the deciding factor for whether a carpet joins a collection or not, it will probably not become a top facet in any easily designable taxonomy. Ideally, a more universal taxonomy could better structure many of these collections. It could also allow for easier and more fruitful targeted searching by users regardless of collection. The same way the Dewey Decimal Classification is utilized in multiple libraries, allowing users a consistent classification reference regardless of collection, so too would a standardized Persian rug taxonomy.

A faceted taxonomy would be ideal for classification of Persian rugs. A hierarchical taxonomy would fail, because it requires starting from one set point. This is where problems have arisen in the past, because some rug taxonomies begin their classification hierarchy with design, while others begin by region. Creating a hierarchy means having definitive knowledge of a rug’s origin, and often includes making an

educated guess about the type of rug if the origin is not known. It is also difficult to decide which of those two characteristics is more important—something that rug scholars have debated for years and that still remains undetermined. A faceted classification can allow for searches by design, region, or both, satisfying the search needs of both types of users.

In addition to design and region, a faceted taxonomy for Persian rugs should also include facets for size, color, and construction. Rugs are usually divided into knotted or flat-woven construction; however, the image collection at www.persia.org does not contain flat-woven or kilim rugs. This would likely be an additional facet under rug components if the collection were to expand to include kilims. Surveys of scholarly studies and carpet sales, as well as discussion with a collector, indicate rug construction (or component) characteristics are important to researchers and collectors.

Because no central authority for Persian rug vocabulary currently exists, this taxonomy will require a great deal of language standardization not currently in use. Although creating an entire controlled vocabulary for Persian rugs is an additional, separate undertaking, it must be noted that much of the taxonomy would be functionless without some language standardization and authority control. This may include translations from Farsi (or other languages) to English or vice versa, as well as unification of a variety of descriptive terms. A great variety of terms exists due to the many languages of Central Asia, the variation of place names due to a succession of regimes, and tribal or ethnic groups that cross national borders.

Taxonomy of Persian Rugs From www.persia.org**Manufacturer of rugs (by group)****Country (manufacturer by country or historic region)**

Iran

Tribe (manufacturer by tribe)

Afshari

Bakhtiari

Baluch

Khamseh

Kurd

Lilihan

Qashqa'i

Quchan

Turkman

City (manufacturer by city)

Arak (city)

Bakshiash

Bijar

Dorokhsh

Heriz

Esfahan (city)

Farahani

Kashan

Kerman (city)

Mashhad

Mushabad

Ravar

Saruq

Sanandaj (Senneh)

Songur

Tabriz

Talkhuncheh

Region (manufacturer by region)

Arak (region)

Azerbaijan, East and West

Chahar Mahal-e Bakhtiari

Fars

Esfahan (region)

Kerman (region)

Khorasan

Kordestan (Kurdistan)

Markazi

Sizes (of carpets)

small

medium

large

Color, dominant (of carpets)

Cream

Blue

Blue, turquoise

Brown

Cream

Ochre

Orange

Red

Sienna

Tan

Yellow

Patterns, Designs, and Motifs (of carpets)

All-over stripes (Moharramat)

Animals

Arabesque (Eslimi)

Birds

Cypress trees

Diamond, repeating

Figurative (pictorial)

European Flower (Gul Farangi)

Fish (Mahi, Herati)

Flowers and blossoms

Garden Carpet

Garden mosaic (Kheshti)

Inscriptions

Medallion, center

Medallion, corner

Octagon, repeating

Palm Leaf (Boteh)

Prayer-niche (Mihrab) motif

Repeat pattern (all-over)

Shah Abbas

Tree-of-life

Vase

Weeping willow tree

Borders

Minor border

Reciprocal border

Rug components (styles and material)

Warp material

Cotton

Cotton, silk or wool

Silk

Wool

Weft material
 Cotton
 Cotton, silk or wool
 Silk
 Wool
 knots
 knot style
 Persian
 Turkish
 Turkish or Persian
 knot density
 Coarse
 Coarse to fine
 Medium
 Medium to fine
 Medium fine to fine
 Medium fine to extremely fine
 Fine
 Fine to extremely fine
 Very fine
 Very coarse to extremely fine
 pile material
 Kurk wool
 Silk
 Silk and metal thread
 Wool
 Wool, kurk wool, silk, or silk and metal thread

Notes and rules for use of this taxonomy
Manufacturer notes.

Turkman (tribe)

Foundation: Warp is mostly cotton and the weft is usually wool.

Knot: Persian. Averages 1,000-2,000 knots per sq. dm.

<http://www.oldcarpet.com/turkamen.htm>

Pile: The pile is wool.

Baluch (tribe)

Foundation: Warp and weft are wool.

Knot: Persian knot and Knot densities range from 1,000-3,000 knots per sq. din.

Pile: The pile is wool.

Kurd (tribe)

Foundation: Warp and weave are mainly wool.

Knot: Turkish knot and knot densities from 500-1,000 knots per sq. dm.

Pile: Wool.

Khorasan (region); Birjand, Mashhad, Darreh Gaz (cities)

Foundation: Warp and weft are cotton.

Knot: Turkish; medium to fine density.

Pile: Wool

South Persia

Khamseh Confederacy and Qashqa'i tribes, Fars region

Sizes: Most of the rugs made by the nomadic or semi-nomadic tribes are small, e.g. 1.50x2.20m, although carpets of larger size in length are also known and some are of outstanding quality. The production also includes many different sizes of bags, the best known of which are the double saddle-bags.

Foundation: Warps of Fars area rugs are of wool in natural ivory and brown shades. The majority of rugs are wool wefted, although a minority of fine Qashqa'i rugs have silk or mixed silk and wool wefts and a few are known with camel hair wefts.

Knots: The great majority of Qashqa'i pieces are knotted with a Persian knot, open to the left. Weavers of the Khamseh tribes appear to have favored the Turkish knot. Knot counts of Fars area rugs generally vary between 1,000-3,000 knots per sq. dm, with Qashqa'i rugs generally at the higher end of this range. Some very fine Qashqa'i pieces have up to 5,000 knots per sq. dm. or more.

Pile: The pile of almost all Fars area rugs is of wool, the highest quality usually being found in Qashqa'i examples. A few camel hair rugs are known.

Kerman (region and city) and Kerman-Laver (city)

Foundation: Warps and wefts are cotton.

Knots: Ravar rugs are woven in the Persian knot, with high knot densities, up to 5000 knots per sq.dm

Pile: The highest quality wool is used, spun even finer than that of Kerman rugs. The pile is clipped very short.

Central Persia

Bakhtiari

Sizes: Small and Large rugs up to 1.50x2.20m are produced, occasionally narrow runners. Room size carpets up to 4x5m are produced in workshops.

Foundation: Warps and wefts are of cotton.

Knots: The Turkish knot is used in greatly varying knot densities, ranging from very coarse to medium fine (up to 500 knots per sq. dm to 2000 per sq. dm)

Pile: Wool

Esfahan

Sizes: Rug sizes predominate, although the urban workshops make all sizes up to large room size carpets, occasionally up to 15 sq.meters.

Foundation: Warps and wefts are of cotton, although wool wefts are also found. Silk Esfahans also have a silk foundation. Gold or Silver threads are used for small highlights, recalling the early Polonaise rugs which had precious metal thread in the foundation.

Knots: The good quality, very finely spun wool, kurk wool, is woven in the Persian knot, with fine to extremely fine (130-320 per sq. in.)

Pile: Very thick wool pile, cut medium high to flat, or silk clipped flat to very flat.

Kashan

Sizes: In the town workshops all formats are produced including room size carpets up to 12 sq. m (130 sq. ft). The villagers generally weave rugs up to 1.50 x 2.20 m

Foundation: Warps and wefts are of finely spun cotton or silk.

Knots: The carpets are extremely dense and woven in the Persian knot. The weave is fine to exceptionally fine, with 2,000-10,000 knots per sq. dm, or even finer for silk carpets.

Pile: Very good quality wool, often obtained from Kermanshah. Top quality pieces are made from kurk wool, occasionally with the use of silk for design outlines. The material for silk carpets comes from local sericulture. Kashans are mostly cut flat, those woven from kurk sheep's wool or silk, very flat.

Arak (region); Farahan, Saruq, and Lilihan

Sizes: All the usual formats are made, including specially large carpets and pieces on commission.

Foundation: Warps and Wefts are of cotton.

Knots: The Persian knot is used. Weaves are medium to extremely fine, Medium fine to extremely fine. A proportion of old and antique pieces are found in the Turkish knot.

Pile: New Saruqs are made from excellent wool, cut medium high to high. Older pieces are often hard, woven in lustrous top quality wool, kurk wool, and cut very short to short.

West Persia

Kordestan (Kurdistan) (region); Bijar , Songur, Sanandaj (Senneh), Darreh Gaz (cities)

Sizes: All sizes, especially from about 1 x 1.50 m upwards. Large pieces of over 12 sq.m are common.

Foundation: Warp and weft are cotton.

Knots: The weave is in the Turkish knot, medium fine to fine, with knot counts of Medium fine to fine Persian knotted pieces are also found in otherwise similar structures.

Pile: The pile is wool.

Kordestan (Kurdistan) (region); Sauj Bulaq (city)

Foundation: Warps and weft are wool.

Knots: The weave is in the Turkish knot, medium fine to fine, with knot counts of Medium fine to fine

Pile: Wool

Northwest Persia

Azerbaijan, East and West (region); Heriz (city), Bakhshiash (city)

Sizes: In general carpets are made in sizes of 6,12, and up to 20 sq. meters. Other formats are occasionally available, such as old and antique wide Heriz runners, prayer rugs, etc.

Foundation: Warps and wefts are of cotton, those of old and antique pieces may also be of silk.

Knots: Coarsely woven in the Turkish knot with up to 1000 knots per sq. dm. Silk carpet are very finely woven.

Pile: Good quality wool, clipped high. Silk piles are cut low.

Tabriz (city)

Sizes: Large variations, up to 12 sq. and above.

Foundation: Warps are mostly cotton, wefts either cotton or wool.

Knots: Turkish or Persian knots, up 2,500 knots per sq. dm

Pile: Wool, generally clipped short to medium high, occasionally silk. The wool is somewhat dull, as is most obtained in Azerbaijan.

Size notes.

Small: longest edge under 1.5 meters

Medium: longest edge between 1.5 and 2.2 meters

Large: longest edge over 2.2 meters

Design notes.

All-over stripes (Moharramat): In this pattern, the carpet is decorated with long and narrow strips of different designs and harmonious colors.

Animals: Realistic or stylized animals.

Arabesque (Eslimi): An ornate linear design of intertwined floral and geometrical figures.

Birds: Realistic or stylized birds.

Cypress trees: Ancient ornament, symbolizing immortality, used in Persian carpets from the Safavid period to the present day.

Diamond, repeating: All-over, repeat diamond layout in the field.

Figurative (pictorial): Carpet with representational design including naturalistic animals, hunting scenes, human figures, etc.

European Flower (Gul Farangi): This design is worked mainly in Kurdistan, particularly in Bijar. The floral patterns in this design do not resemble those appearing in Shah Abbas or Arabesque design.

Fish (Mahi, Herati): An old Mongol (Turkish) pattern that has fish and turtle design. A very common repeated field design which consists of a flower centered in a diamond with curving leaves located outside the diamond and parallel to each side. The term can be also referred to as "Mahi" - a fish design in Farsi.

Flowers and blossoms: The main ornament in Persian carpets, in a multiplicity of different forms.

Garden Carpet (Golestan): Early carpets (mainly north-west Persian, 17th/18th century) with designs derived from Persian gardens.

Garden mosaic (Kheshti); The best known Bakhtiari rug design is the Garden carpet with flower- and tendril-filled compartmental designs (Kheshti Design).

Inscriptions: Text or other writing incorporated into the rug's design, including, but not limited to poetry, dates, and signatures.

Medallion, center: Circular, oval, or polygonal carpet ornament; thus "central medallion."

Medallion, corner: Polygonal carpet ornament that rests in the corner(s) of the field.

Octagon, repeating; The octagon is a carpet ornament used in many different forms in north-west Persian provenances and nomad (tribal) carpets.

Palm Leaf (Boteh): A rug design named after the Farsi word for immature flower or palm leaf. Boteh is a widespread pattern of Persian origin (Persian boteh = cluster of leaves). Various interpretations including: Flame, Tear drop, Pine cone, Pear, and Tree. In addition, Boteh design is well known in west a pear, pine cone or the Paisley pattern motif. Frequently Boteh's are found to decorate the entire field as a repetitive all over pattern.

Prayer-niche (mihrab) motif; Rug with a central field that has an arch atop a central column. The specific details of the shape of the arches will vary from region to region, but usually there is only one arch.

Repeat pattern (all-over): All over carpet field pattern consisting of uniformly repeated design elements.

Shah Abbas: Carpet design believed to originate from the period of Shah Abbas, with a repeat of alternating palmettes and rosettes.

Tree-of-life: Ancient symbol ornament, found in many variations.

Vase: Carpet ornament; earliest use on Persian carpets is on the so-called 'Vase carpets' dating from the time of Shah Abbas I.

Weeping willow tree: Carpet ornament found mainly in prayer rugs, garden, and so-called 'cemetery' carpets.

Borders

Minor border: A narrow secondary border which flanks the main carpet border.

Reciprocal border: A border with uniform, opposed, in some cases interlocking design element, which may be emphasized by use of different colors.

Rug construction notes.

Knot density

Very Coarse: up to 500 knots per sq. dm

Coarse: 500-1,000 knots per sq. dm

Medium Fine: 1,000-2,000 knots per sq. dm

Fine: 2,000-2,500 knots per sq. dm

Very Fine: 2,500-4,500 knots per sq. dm (160-290 per sq. in.)

Extremely Fine: over 4,500 knots per sq. dm (290 per sq. in.)

Missing information on specific rugs

We have indicated sizes and foundation components including warp, weft, and pile materials. Unless indicated otherwise, all components that are indicated are the most typical for rugs of that particular tribe, city or region. Many times there are variances. See the notes on individual manufacturers for additional information on exceptions.

Rugs missing information on components:

- 4, missing all but missing all but pile
 - 5, missing all but pile
 - 7 missing all but pile
 - 9 missing all but pile
 - 10 missing all but pile
 - 21, missing all but pile
 - 27, missing all but warp, weft, pile
 - 29, missing all but pile
 - 32, missing all but warp, weft, pile
 - 33, missing all but knot style, knot density
 - 34, missing all but pile
 - 35, missing all but pile
 - 36, missing all but pile
 - 38, missing all but pile
 - 39, missing all but pile
 - 41, missing all but pile
 - 42, missing all but pile
 - 43, missing all but pile
 - 44, missing all but pile
 - 45, missing all but pile
 - 46, missing all but pile
 - 47, missing all but pile
 - 48, missing all but pile
 - 59, missing all but knot style, knot density
 - 62, missing all but knot type and density
 - 64, missing all but knot density
 - 75, missing all but knot style and density
 - 76, missing all but warp, weft, and pile
 - 77, missing all but pile
 - 80, missing all but warp, weft, and pile
 - 81, missing all but pile
- Rugs missing information on size
- 49, 68, 82, 87

Classifications of individual examples

1)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Khamseh

Region: Fars
 Patterns: Animals; Cypress tree; Figurative (pictorial); Minor border
 Dominant color: Red
 Size: Medium
 Rug components:
 Warp: Wool
 Weft: Wool
 Knot density: Medium fine to fine
 Knot type; Turkish
 Pile material: Wool

2)
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Qashqa'i
 Region: Fars
 Patterns: Animals; Figurative (pictorial); Minor border
 Color: Yellow
 Size: Medium
 Rug components:
 Warp material: Wool
 Weft material: Wool
 Knot style: Persian
 Knot density: Medium fine to fine
 Pile material: Wool

3)
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Qashqa'i
 Region: Fars
 Patterns: Birds; Medallion, center; Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Wool
 Weft material: Wool
 Knot style: Persian
 Knot density: Medium fine to fine
 Pile material: Wool

4)
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Qashqa'i
 Region: Fars

Patterns: Animals; Medallion, center; Minor border

Color: Cream

Size: Large

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

5)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Qashqa'i

Region: Fars

Patterns: All-over stripes (Moharramat); Flowers and blossoms; Inscriptions; Minor border

Color: Brown

Size: Large

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

6)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Afshari

Region: Fars

Patterns: Medallion, center

Color: Red

Size: Large

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

7)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Afshari

Region: Fars

Patterns: All-over stripes (Moharramat); Inscriptions; Minor border

Color: Red

Size: Medium

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

8)

Manufacturer of rugs (by group):

Country: Iran

Tribe; Qashqa'i

Region: Fars

Patterns: Birds; Flowers and blossoms; Inscriptions; Minor border; Weeping willow tree

Color: Cream

Size: Medium

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

9)

Manufacturer of rugs (by group):

Country: Iran

City: Kerman (city)

Patterns: Flowers and blossoms; Inscriptions; Minor border; Weeping willow tree

Color: Cream

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Persian

Knot density: Medium fine to fine

Pile material: Wool

10)

Manufacturer of rugs (by group):

Country: Iran

Region: Kerman (region)

City: Ravar

Patterns: Flowers and blossoms; Minor border; Repeat pattern (all-over)

Color: Blue, turquoise

Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

11)
Manufacturer of rugs (by group):
Country: Iran
City: Kerman (city)
Patterns: Figurative (pictorial); Inscriptions; Minor border
Color: Ocher
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

12)
Manufacturer of rugs (by group):
Country: Iran
Region: Kerman (region)
City: Ravar
Patterns: Figurative (pictorial); Inscriptions
Color: Ocher
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

13)
Manufacturer of rugs (by group):
Country: Iran
Region: Kerman (region)
City: Ravar
Patterns: Animals; Birds; Flowers and blossoms; Minor border
Color: Orange
Size: Large
Rug components:

Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

14)

Manufacturer of rugs (by group):
Country: Iran
City: Kerman (city)
Patterns: Flowers and blossoms; Medallion, center
Color: Tan
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

15)

Manufacturer of rugs (by group):
Country: Iran
City: Kerman (city)
Patterns: Flowers and blossoms; Minor border; Vase
Color: Sienna
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

16)

Manufacturer of rugs (by group):
Country: Iran
City: Kerman (city)
Patterns: Cypress tree; Flowers and blossoms; Repeat pattern (all-over)
Color: Red
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton

Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

17)

Manufacturer of rugs (by group):
Country: Iran
Tribe: Turkman
Region: Khorasan
Patterns: All-over stripes (Moharramat)
Color: Red
Size: Small
Rug components:
Warp material: Cotton
Weft material: Wool
Knot style: Persian
Knot density: Medium fine
Pile material: Wool

18)

Manufacturer of rugs (by group):
Country: Iran
Tribe: Baluch
Patterns: Minor border; Prayer-niche (mihrab);
Color: Red
Size: Small
Rug components:
Warp material: Wool
Weft material: Wool
Knot style: Persian
Knot density: Medium fine to fine
Pile material: Wool

19)

Manufacturer of rugs (by group):
Tribe: Kurd
Region: Khorasan
City: Quchan
Patterns: Octagon, repeating
Color: Red
Size: Large
Rug components:
Warp material: Wool
Weft material: Wool
Knot style: Persian
Knot density: Medium fine to fine

Pile material: Wool

20)

Manufacturer of rugs (by group):

Country: Iran

Region: Khorasan

City: Dorokhsh

Patterns: Medallion, corner; Minor border; Palm Leaf (Boteh)

Color: Cream

Size: Medium

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium to fine

Pile material: Wool

21)

Manufacturer of rugs (by group):

Country: Iran

Region: Khorasan

City: Bijar

Patterns: Flowers and blossoms; Inscriptions; Medallion, center; Prayer-niche (mihrab);

Minor border;

Color: Red

Size: Medium

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium to fine

Pile material: Wool and silk

22)

Manufacturer of rugs (by group):

Country: Iran

Region: Khorasan

City: Mashhad

Patterns: Inscriptions; Medallion, center; Minor border

Color: Red

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium to fine

Pile material: Wool

23)

Manufacturer of rugs (by group):

Country: Iran

Region: Khorasan

Patterns: Fish (Mahi, Herati); Minor border

Color: Orange

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium to fine

Pile material: Wool

24)

Manufacturer of rugs (by group):

Country: Iran

Region: Khorasan

Patterns: Fish (Mahi, Herati); Flowers and blossoms; Minor border

Color: Red

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium to fine

Pile material: Wool

25)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Bakhtiari

Patterns: Cypress tree; Garden mosaic (Kheshti); Weeping willow tree; Minor border

Color: Orange

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Coarse to fine

Pile material: Wool

26)

Manufacturer of rugs (by group):

Country: Iran
 Tribe: Bakhtiari
 Region: Chahar Mahal-e Bakhtiari
 Patterns: Cypress tree; Garden mosaic (Kheshti); Weeping willow tree; Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

27)

Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Bakhtiari
 Region: Chahar Mahal-e Bakhtiari
 Patterns: Cypress tree; Garden mosaic (Kheshti); Weeping willow tree; Minor border
 Color: Ocher
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

28)

Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Bakhtiari
 Region: Chahar Mahal-e Bakhtiari
 City: Talkhuncheh
 Patterns: Diamond, repeating; Flowers and blossoms; Inscriptions
 Color: Blue
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

29)

Manufacturer of rugs (by group):

Country: Iran
 Tribe: Bakhtiari
 Patterns: Flowers and blossoms; Inscriptions; Medallion, corner; Minor border; Shah Abbas
 Color: Sienna
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

30) runner
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Bakhtiari
 Region: Chahar Mahal-e Bakhtiari
 Patterns: European Flower (Gul Farangi); Minor border
 Color: Ocher
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

31)
 Manufacturer of rugs (by group):
 Country: Iran
 Region: Chahar Mahal-e Bakhtiari
 Patterns: Diamond, repeating; Medallion, corner
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

32)
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Bakhtiari

Region: Chahar Mahal-e Bakhtiari
 Patterns: Cypress tree; Diamond, repeating; Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

33)
 Manufacturer of rugs (by group):
 Country: Iran
 Tribe: Bakhtiari
 Patterns: Medallion, corner
 Color: Red
 Size: Medium
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish knots
 Knot density: Very fine
 Pile material: Wool

34)
 Manufacturer of rugs (by group):
 Country: Iran
 City: Esfahan (city)
 Patterns: Inscriptions; Medallion, center; Minor border; Shah Abbas
 Color: Blue, turquoise
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Wool

35)
 Manufacturer of rugs (by group):
 Country: Iran
 City: Esfahan (city)
 Patterns: Arabesque (Eslimi); Inscriptions; Medallion, center; Reciprocal border
 Color: Red
 Size: Small

Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: 2000- 5000 knots per sq. dm
 Pile material: Kurk Wool

36)

Manufacturer of rugs (by group):
 Country: Iran
 City: Esfahan (city)
 Patterns: Inscriptions; Minor border; Prayer-niche (mihrab)
 Color: Ocher
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Wool

37)

Manufacturer of rugs (by group):
 Country: Iran
 City: Esfahan (city)
 Patterns: Inscriptions; Medallion, corner; Minor border
 Color: Ocher
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Wool

38)

Manufacturer of rugs (by group): Country: Iran
 City: Esfahan (city)
 Patterns: Flowers and blossoms; Inscriptions; Medallion, center; Minor border; Shah
 Abbas
 Color: Red
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian

Knot density: Fine to extremely fine
Pile material: Wool

39)

Manufacturer of rugs (by group):
Country: Iran
City: Esfahan (city)
Patterns: Inscriptions; Minor border; Repeat pattern (all-over)
Color: Cream
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Fine to extremely fine
Pile material: Kurk Wool

40)

Manufacturer of rugs (by group):
Country: Iran
City: Esfahan (city)
Patterns: Arabesque (Eslimi); Inscriptions; Medallion, center; Medallion, corner; Minor border; Shah Abbas
Color: Red
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Fine to extremely fine
Pile material: Wool

41)

Manufacturer of rugs (by group): Country: Iran
City: Esfahan (city)
Patterns: Arabesque (Eslimi); Medallion, center; Minor border
Color: Cream
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Fine to extremely fine
Pile material: Wool and silk

42)

Manufacturer of rugs (by group):

Country: Iran

City: Kashan

Patterns: Flowers and blossoms; Inscriptions; Medallion, center; Minor border; Shah Abbas

Color: Sienna

Size: Medium

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Persian

Knot density: Fine to extremely fine

Pile material: Wool

43)

Manufacturer of rugs (by group):

Country: Iran

City: Kashan

Patterns: Inscriptions; Reciprocal border; Repeat pattern (all-over)

Color: Red

Size: Medium

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Persian

Knot density: Fine to extremely fine

Pile material: Silk

44)

Manufacturer of rugs (by group):

Country: Iran

City: Kashan

Patterns: Inscriptions; Minor border; Tree-of-life

Color: Red

Size: Small

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Persian

Knot density: Fine to extremely fine

Pile material: Silk

45)

Manufacturer of rugs (by group):

Country: Iran

City: Kashan

Patterns: Animals; Birds; Inscriptions; Medallion, center; Minor border
 Color: Red
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Wool

46)

Manufacturer of rugs (by group):
 Country: Iran
 City: Kashan
 Patterns: Animals; Birds; Inscription; Minor border
 Color: Cream
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Wool

47)

Manufacturer of rugs (by group):
 Country: Iran
 City: Kashan
 Patterns: Inscriptions; Medallion, center; Reciprocal border; Shah Abbas
 Color: Red
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Persian
 Knot density: Fine to extremely fine
 Pile material: Silk

48)

Manufacturer of rugs (by group):
 Country: Iran
 City: Kashan
 Patterns: Medallion, center
 Color: Tan
 Size: Large
 Rug components:

Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Fine to extremely fine
Pile material: Silk and metal thread

49)

Manufacturer of rugs (by group):
Country: Iran
City: Kashan
Patterns: Prayer rug, Eslimi design
Color: Ocher
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Fine to extremely fine
Pile material: Wool

50)

Manufacturer of rugs (by group):
Country: Iran
Tribe: Lilihan
Region: Arak
City: Arak
Patterns: Medallion, Center; Medallion, corner; Minor border
Color: Red
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

51)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
City: Mushabad
Patterns: Medallion, Center; Medallion, corner; Border: Minor border; Prayer-niche (mihrab);
Color: Red
Size: Large
Rug components:

Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

52)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
City: Saruq
Patterns: Diamond, repeating; Minor border
Color: Cream
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

53)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
City: Saruq
Patterns: Medallion, Center; Medallion, corner
Color: Red
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

54)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
Patterns: Repeat pattern (all-over); Minor border
Color: Red
Size: medium
Rug components:
Warp material: Cotton
Weft material: Cotton

Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

55)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
City: Saruq
Patterns: Repeat pattern (all-over); Flowers and blossoms;
Color: Cream
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

56)

Manufacturer of rugs (by group):
Country: Iran
Region: Arak
City: Saruq
Patterns: Palm Leaf (Boteh); Animal motifs, Minor border
Color: Sienna
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine
Pile material: Wool

57)

Manufacturer of rugs (by group): Country: Iran
Region: Arak
City: Farahani
Patterns: Medallion, Center; Minor border
Color: Brown
Size: Medium
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Persian
Knot density: Medium fine to extremely fine

Pile material: Wool

58)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Kurd

Region: Kordestan (Kurdistan)

Patterns: Repeat pattern (all-over); Diamond, repeating; Minor border

Color: Red

Size: Large

Rug components:

Warp material: Wool

Weft material: Wool

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

59)

Manufacturer of rugs (by group):

Country: Iran

Region: Kordestan (Kurdistan)

City: Songur

Patterns: Medallion, Center; Diamond, repeating; Minor border

Color: Cream

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

60)

Manufacturer of rugs (by group):

Country: Iran

Region: Kordestan (Kurdistan)

Patterns: Arabesque (Eslimi); Medallion, Center; Flowers and blossoms; Minor border

Color: Ocher

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

61)

Manufacturer of rugs (by group):

Country: Iran

Tribe: Kurd

Region: Kordestan (Kurdistan)

City: Sanandaj (Senneh)

Patterns: Medallion, Center; Repeat pattern (all-over)

Color: Brown

Size: Medium

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

62)

Manufacturer of rugs (by group):

Country: Iran

Region: Kordestan (Kurdistan)

City: Bijar

Patterns: European Flower (Gul Farangi); Repeat pattern (all-over)

Color: Red

Size: Large

Rug components:

Warp material: cotton

Weft material: cotton

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

63)

Manufacturer of rugs (by group):

Country: Iran

Region: Kordestan (Kurdistan)

City: Bijar

Patterns: Medallion, Center; Arabesque (Eslimi); Minor border

Color: Red

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Medium fine to fine

Pile material: Wool

64)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Kordestan (Kurdistan)
 City: Bijar
 Patterns: Medallion, Center; Minor border
 Color: Ocher
 Size: Medium
 Rug components:
 Warp material: cotton
 Weft material: cotton
 Knot style: Turkish
 Knot density: Coarse
 Pile material: Wool

65)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Kordestan (Kurdistan)
 City: Bijar
 Patterns: Arabesque (Eslimi); Fish (Mahi, Herati) (Herati); Medallion, Center; Minor border
 Color: Yellow
 Size: Large
 Rug components:
 Warp material: cotton
 Weft material: cotton
 Knot style: Turkish
 Knot density: Medium fine to fine
 Pile material: Wool

66)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 Patterns: Animal motifs; Medallion, Center; Minor border
 Color: Cream
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse
 Pile material: Wool

67)

Manufacturer of rugs (by group):
Country: Iran
Region: Azerbaijan, East and West
Patterns: Medallion, Center; Minor border
Color: Red
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Turkish
Knot density: Coarse
Pile material: Wool

68)
Manufacturer of rugs (by group):
Country: Iran
Region: Azerbaijan, East and West
Patterns: Medallion, Center; Minor border
Color: Orange
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Turkish
Knot density: Coarse
Pile material: Wool

69)
Manufacturer of rugs (by group):
Country: Iran
Region: Azerbaijan, East and West
Patterns: Medallion, Center
Color: Cream
Size: Large
Rug components:
Warp material: Cotton
Weft material: Cotton
Knot style: Turkish
Knot density: Coarse
Pile material: Wool

70)
Manufacturer of rugs (by group):
Country: Iran
Region: Azerbaijan, East and West

Patterns: Arabesque (Eslimi); Medallion, Center; Text (incorporated into design); Minor border

Color: Orange

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Coarse

Pile material: Wool

71)

Manufacturer of rugs (by group):

Country: Iran

Region: Azerbaijan, East and West

Patterns: Medallion, Center; Minor border

Color: Red

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Coarse

Pile material: Wool

72)

Manufacturer of rugs (by group):

Country: Iran

Region: Azerbaijan, East and West

Patterns: Diamond, repeating; Flowers and blossoms; Repeat pattern (all-over); Minor border

Color: Red

Size: Large

Rug components:

Warp material: Cotton

Weft material: Cotton

Knot style: Turkish

Knot density: Coarse

Pile material: Wool

73)

Manufacturer of rugs (by group):

Country: Iran

Region: Azerbaijan, East and West

Patterns: Diamond, repeating; Repeat pattern (all-over); Minor border

Color: Blue

Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse
 Pile material: Wool

74)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Arabesque (Eslimi); Medallion, center; Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

75)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Fish (Mahi, Herati) (Herati); Repeat pattern (all-over); Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

76)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: All-over stripes (Moharramat); Arabesque (Eslimi); Reciprocal border
 Color: Red
 Size: Large

Rug components:
 Warp material: Silk
 Weft material: Silk
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

77)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Inscriptions; Medallion, center; Shah Abbas; Minor border
 Color: Blue, turquoise
 Size: Medium
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool
 Pile material: Wool

78)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Animal motifs; Cypress trees; Medallion, center
 Color: Cream
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

79)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Animal motifs; Medallion, center; Minor border
 Color: Red
 Size: Large

Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

80)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Palm Leaf (Boteh); Repeat pattern (all-over); Minor border
 Color: Ocher
 Size: Large
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

81)

Manufacturer of rugs (by group):
 Country: Iran
 Region: Azerbaijan, East and West
 City: Tabriz
 Patterns: Animals; Birds; Figurative (pictorial); Inscriptions; Medallion, center;
 Reciprocal border
 Color: Tan
 Size: Small
 Rug components:
 Warp material: Cotton
 Weft material: Cotton
 Knot style: Turkish
 Knot density: Coarse to fine
 Pile material: Wool

82)

Manufacturer of rugs (by group):
 Country: Iran
 Patterns: Arabesque (Eslimi); Shah Abbas
 Color: Red
 Size: Medium
 Rug components:
 Warp material: Silk

Weft material: Silk
Knot style: Persian or Turkish
Knot density: Fine to extremely fine
Pile material: Silk

83)

Manufacturer of rugs (by group):
Country: Iran
Patterns: Animals; Arabesque (Eslimi); Birds; Shah Abbas
Color: Red
Size: Small
Rug components:
Warp material: Silk
Weft material: Silk
Knot style: Persian or Turkish
Knot density: Fine to extremely fine
Pile material: Silk

84)

Manufacturer of rugs (by group):
Country: Iran
Patterns: Flowers and blossoms; Vase
Color: Blue
Size: Large
Rug components:
Warp material: Silk
Weft material: Silk
Knot style: Persian or Turkish
Knot density: Fine to extremely fine
Pile material: Silk

85)

Manufacturer of rugs (by group):
Country: Iran
Patterns: Flowers and blossoms; Medallion, center; Medallion, corner; Vase
Color: Red
Size: Large
Rug components:
Warp material: Silk
Weft material: Silk
Knot style: Persian or Turkish
Knot density: Fine to extremely fine
Pile material: Wool

86)

Manufacturer of rugs (by group):

Country: Iran
 Patterns: Animals; Flowers and blossoms; Garden Carpet
 Color: green
 Size: Large
 Rug components:
 Warp material: Cotton; Silk; Wool
 Weft material: Cotton; Silk; Wool
 Knot style: Persian; Turkish
 Knot density: Very course to extremely fine
 Pile material: Wool; Kurk wool; Silk; Silk and metal thread

87)
 Manufacturer of rugs (by group):
 Country: Iran
 Patterns: Arabesque (Eslimi); Medallion, corner
 Color: Red
 Size: Large
 Rug components:
 Warp material: Silk
 Weft material: Silk
 Knot style: Persian or Turkish
 Knot density: Fine to extremely fine
 Pile material: Silk

88)
 Manufacturer of rugs (by group):
 Country: Iran
 Patterns: Repeat pattern (all-over)
 Color: Cream
 Size: Large
 Rug components:
 Warp material: Cotton; Silk; Wool
 Weft material: Cotton; Silk; Wool
 Knot style: Persian; Turkish
 Knot density: Very course to extremely fine
 Pile material: Wool; Kurk wool; Silk; Silk and metal thread

89)
 Manufacturer of rugs (by group):
 Country: Iran
 Patterns: Animals; Birds; Flowers and blossoms; Medallion, center; Minor border
 Color: Red
 Size: Large
 Rug components:
 Warp material: Cotton; Silk; Wool
 Weft material: Cotton; Silk; Wool

Knot style: Persian; Turkish

Knot density: Very course to extremely fine

Pile material: Wool; Kurk wool; Silk; Silk and metal thread

Annotated Literature List

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Aschenbrenner, E. (ed.) (1996). *Persian rugs & carpets* (2nd ed.) Tehran: Farhang-sara Yassavoli.

This was consulted in order to further research the motif portion of the taxonomy.

Bates, M. (2002, July). After the dot-bomb: Getting web information retrieval right this time. *First Monday*, 7(7). Retrieved December 2, 2007 from http://www.firstmonday.org/issues/issue7_7/bates/index.html

Used for researching web taxonomies, display, and presentation.

The carpet museum of Iran. (2001). The centers of carpet-weaving in Iran. Retrieved November 24, 2007 from <http://www.carpetmuseum.ir/collections/collections.htm>

This museum site contained useful descriptions of carpet weaving centers, featuring a map of Iran, as well as descriptions of styles of rugs.

The classification of oriental carpets: Part I. (1905). *The Burlington Magazine for Connoisseurs*, 8(31), 35-37.

“Without doubt, the classification of oriental carpets is one of the most difficult problems that confront the student or the connoisseur” (p. 35). We consulted this article for confirmation on what facets were considered to be important at the beginning of the 20th century, even though the task was considered to be impossible: shed, plush, or pile, backing (woof and warp), fringes, knotting, dyes, natural wools, arrangements of colours in relation to one another, texture (including the depth of the pile and the closeness of the weaving), design and symbolism. The discussion of influences going all directions between Mongol, Chinese, Persian, Afghanistan, Turkish, and European origins of rugs helps to explain why rug identification is difficult.

Denton, W. (2003). How to make a faceted classification and put it on the web. Retrieved December 1, 2007, from <http://www.miskatonic.org/library/facet-web-howto.html>

This paper was invaluable in learning to structure and create a faceted taxonomy. Used for learning how to decide and determine facets and categories, as well as determining display and citation order.

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This commercial site tackles the complexity of Persian carpet classification, providing a comprehensive system for classifying carpets in 8 groupings.

Gans-Ruedin, E. (1983). *The great book of oriental carpets* [Beaute du Tapis d'Orient] (Valerie Howard, Trans.). New York: Harper & Row.

This volume presents "carpets from the principal areas in the East that are to be found today in the trade and that date from the 19th and 20th centuries." The book was helpful in clearly delineating the four or five groups of carpet making regions, including Persian, and we consulted the facets the authors used—style, origin, date, dimensions, knot, warp, weft. The glossary was consulted for determining the most important motifs found in Persian carpets.

Getty Research Institute. (2000). Thesaurus of Geographic Names. Retrieved November 30, 2007 from

http://www.getty.edu/research/conducting_research/vocabularies/tgn/index.html

Used as a resource for authoritative forms of geographic names and terms.

Harris, N. (1977). *Rugs and carpets of the orient*. London: The Hamlyn Publishing Group Limited.

This book was especially helpful in its section on Signs, Designs and Decorations, with clear illustrations of motifs such as Palmette, Gul, Herati pattern, and mir-i-botah. The chapter on Persia covers the rug-making areas of the country and the typical types of carpets made in each region.

Hassouri, A. (1993). Problems of Persian carpet terminology. *Oriental Rug Review*, 13(5), 40-45.

Hassouri's article details the difficulties and challenges in attempting to create a central terminology for Persian rugs, including term, region, design and language variation.

Indictor, R. (2007). Personal conversation.

Email consultation with an Islamic textile collector helped determine which rug characteristics might be important to collectors.

Iranian cultural and information center. (1997). *Gallery, Persian rugs*. Retrieved November 23, 2007, from <http://www.persia.org/imagemap/imagemap.html>

Sample collection used for creating the Persian rug taxonomy. Also used to identify and determine categories and facets.

Ittig, A. (1984). The Persian carpet. *Oriental Rug Review*, IV, 269-272. Retrieved November 24, 2007 from <http://www.rugreview.com/ittig.htm>

An overview of Persian carpet design and history used for both general edification as well as demonstrating that researchers of Persian rugs are generally at least moderately knowledgeable about the subject.

Lancaster, F. W. (2003). *Indexing and abstracting in theory and practice, 3rd ed.* Illinois: Champaign. Publications Office, University of Illinois, Graduate School of Library and Information Science.

Reference for taxonomy theory and structure.

Lefevre, J. (1977). *The Persian Carpet.* London: Lefevre & Partners.

The examples in this book were compared to examples on www.persia.org in order to derive speculative data for some rugs lacking information.

Liebetrau, P. (1962). *Oriental rugs in colour* [Orientalske Tæpper I Farver] (Translated from the Danish by Katherine John Trans.). New York: The MacMillan Company.

A comprehensive guide to the carpet making regions of the orient (five), with information on history, technique, design, materials, motifs and patterns, and looms, etc. The areas discussed gave us our first idea about which facets were the most important to treat.

Linley, R. (1996-97). *The oriental carpet: Meaning in context. Topics in material culture: University of Toronto HIST 476.* Retrieved November 24, 2007, from http://www.chass.utoronto.ca/history/material_culture/robin

Outline and syllabus for a class at the U. of Toronto about the social meaning of Oriental carpets, which makes the observation that every taxonomy reflects a cultural perspective of the originator of the

taxonomy: "...there appears to be a virtually infinite number of taxonomies that attempt to create a 'history' for the oriental carpet through identification and classification."

National Information Standards Organization. (2005). *ANSI/NISO Z39.19 -2005: Guidelines for the construction, format, and management of monolingual controlled vocabularies*. NISO Press. Maryland: Bethesda. Retrieved December 2, 2007, from http://www.niso.org/standards/standard_detail.cfm?std_id=814

Used to ensure adherence to established standards for both taxonomic structure and vocabulary terms.

Oldcarpets.com. (2007). Real Persian Rugs and Carpets. Retrieved November 30, 2007 from <http://www.oldcarpet.com/visibility.htm>

This site provided good information and ideas for motif classifications.

On oriental carpets: Article I - Introduction.(1903). *The Burlington Magazine for Connoisseurs*, 1(1), 75-77+79-81+83.

A discussion here on facets contributed to our understanding of the complexity we were dealing with, and gave us the perspective that the struggle to "classify" carpets has been going on for 100 years or more. The manufacturing facets noted were: nomads versus settled handicraftsmen (who may nevertheless travel all around the country for work). Design facets are considered to be floral or geometric. Other distinctions mentioned: were ethnographic and geographic, technical and decorative.

Persian carpet export. Classification of Iranian carpets. (n.d.) Retrieved November 27, 2007, from <http://www.persiancarpetexport.com/Classification.asp>

This site had information on classification; it provided a good explanation of the confusion between Tribal Carpets and Rural or Urban Carpets. It also suggested a more complex classification of sizes that had to do with the functionality (room placement) of a rug, but was hard to implement, as our collection was unclear about many of the rug types.

The Iran Carpet Company (n.d.). Persian carpets: Persian rugs, Persian carpets, and oriental rugs. Classification of Persian rugs. Retrieved November 24, 2007 from <http://www.persian-carpet.info/classification-of-persian-rugs.php>

This classification system reinforces the notion that the most important facets are: Regions, Tribal or City, Quality, Size.

Persian rugs - tutorial. (2006). Retrieved November 24, 2007 from http://www.rugman.com/Library/Persian_Rugs.html

This site also suggested facets for region, tribal or city, quality, size, while cautioning that much confusion exists when attempting to identify where a rug's origin. "Quality refers mainly to the knotting of the rug plain and simple: the higher the knot count, the higher the quality." Although our Islamic expert whom we interviewed also reiterated that knot count for pile rugs was all important in terms of deciding quality, we decided that quality wasn't going to be a practical facet for our taxonomy, without sure knowledge of the knotting density for the rugs or having a connoisseur see the rugs in person.

Purdon, N. (1996). *Carpet and textile patterns*. London: Hali Publications Ltd.

This book suggested more general categories for a more universal facet of motif, that would apply to a wider variety of carpets, not just Persian, but from all over the world.

Sakhal, E. (1997). *The story of carpets*. Rhode Island: Wakefield: Moyer Bell.

This volume was useful in identifying specific geographic regions for carpets: Asfhar (Shiraz, Kerman); Bakhtiari (tribe) tribal; workshop; Bijar: (Kurdistan); Esfahan (Persian knot); Heriz (Village in Azerbaijan), Ahar, Sharabiyani, Kargha (Turkish knot); Kashan; Kerman (Laver Kerman); Mashad, (capital of Khorasan), Nain, (near Esfahan), (finely -knotted); Qashqa'i (Fars region); Qum (near Tehran); Sarouk (Arak region); Senneh (Iranian Kurdistan); Tabriz (Capital of Azerbaijan).

Tehrani, J., & Collard, M. (2002). Investigating cultural evolution through biological phylogenetic analyses of Turkmen textiles. *Journal of Anthropological Archaeology*, 21(4), 443-463.

Demonstrates that many rug researchers are advanced in their knowledge and study of the subject matters; this article includes the type of detailed, highly specific information a researcher might find useful in searching the domain.

The textile museum. (2007). [2320 S Street, NW, Washington, DC]. Retrieved November 24, 2007 from <http://www.textilemuseum.org/pieces/objects1.html>

The notes for carpets in this collection would have been useful for constructing our facets, if we had had the necessary information about the carpets in our image collection. Description of the color of one piece in the collection suggested to us to use “ground” for the background color, a term used at other sites and in books, as well. “The multi-colored background of this carpet is unusual; most classical carpets have a single ground color.” However, the detail in our image collection was not sufficient to go into great detail about background and foreground and to list the myriad of colors that appear in many rugs.

Thompson, J. (1988). *Oriental carpets from the tents, cottages and workshops of Asia.*

New York, NY: E. P. Dutton.

This book suggested a new way of classifying carpets, as grouping by country is very confusing and inadequate. We would have been interested in using these categories, if the image collection had contained the needed information. We would have had to speculate: Tribal weavings; products of the cottage industries; carpets manufactured in town or city workshops; and court carpets.

Discussion

The domain of oriental rugs, even narrowed in scope to knotted Persian carpets in particular, is rife with difficult challenges. These rugs appear to be obviously popular in both scholarly and collecting communities, but there has yet to be any standardization of terminology. While taxonomies and thesauri are distinct projects, it is often difficult for the former to function without the latter. Without an established standard already in place, deciding on vocabulary terms to use in the taxonomy inspires much debate and decision-making. There are several sorts of confusion with terminology for Persian carpets, according to Hassouri (1993), despite several efforts in the past to construct a dictionary of Oriental carpet terms. Terms of weaving technique are not standardized even within Iran. Farsi words have been used for describing certain elements of carpet design outside of Iran and been slightly changed, and words from outside Iran have entered the vocabulary inside of Iran. English translations are not always adequate for some terms. In addition, regional names have come to stand for certain designs typical of those areas, whereas terms for common combinations of patterns would be more appropriate. All these problems are covered in detail in Hassouri's article.

A large part of the vocabulary problem stems from the fact that the actual terms themselves vary. Some terms are in the language of origin (Farsi in the case of Persian rugs) while other, equivalent terms are in English. The vocabulary used should correspond to the language of the taxonomy, so in this case, with an English-literate user base, the decision was made to use English terms to describe the rugs. However, there are some concepts, especially in rug design and motif, which can only be adequately expressed in Farsi. How then should these be incorporated into the taxonomy?

Theoretically, the word could be translated into English, but a literal translation may not convey the same meaning as the original native term. In addition, many advanced connoisseurs of Persian carpets are indeed already familiar with common Farsi descriptive terms in the domain and may be inclined to search for those headings. In this instance, the decision was made to use English as the default term language, since the user base is English literate. For concepts that could only be adequately expressed in Farsi, or for terms that would be more well-known and recognizable to collectors in the native language, Farsi was used. Many sources were consulted to ensure best usage of language terminology.

Other vocabulary problems stem from geographic terminology. Not only do place names vary between language (such as the Farsi name “Isfahan” and the Americanized version “Esfahan”), but also geographic designations have changed over time. The boundaries of ancient Persia differ from the current boundaries of Iran. Scholars and collectors who classify rugs by region do not limit classification to mere political geography, but rather consider some nomadic tribes as regional categories, despite their nomadic geographic movement. Some rugs are classed by workshop, which was often named for the location of the work, yet some consider the workshop a class of “manufacturer” while others consider it a regional designation. Some workshops can be within cities, cities fall within regions, blurring the boundaries of category definitions. Some of these categories share the same name, such as the city of Esfahan and the overall region of Esfahan. Just as in the United States a distinction is needed between New York (city) and New York (state), a parenthetical qualifier can be used to distinguish the two.

In addition, some rug design styles were named for their geographic origins, requiring a qualifier such as “Esfahan (style).”

This becomes especially difficult without a thesaurus, as there is no way to untie the various spellings and concepts. Without the ability to create references such as “see” and “see also,” a researcher seeking an Isfahan rug would not be directed to Esfahan, and vice versa. Without that cross-reference, no results will be retrieved, basically rendering the taxonomy useless. The Getty Thesaurus of Geographic Names proved to be a valuable resource. With its art history scope, the TGN assists with challenges such as ancient vs. modern geographic names, unlike current political geographic atlases and authorities that only cover current geography. When geographic terms could not be found in the TGN, terms were constructed by examining the language of the users and the domain. Term use on www.persia.org as well as research of other authoritative references led to choice of geographic term.

Terminology for motifs and designs of carpets also varies widely. In addition to the language disparities, there is also the issue of subjectivity. Similar to problems in image subject description, it can be challenging to determine what the image on the rug is. Some categories of design may overlap, such as a stylized geometric floral design. Should such an example be classed under geometric pattern or floral motif? Also, many rugs feature more than one design or motif. How should those be accounted for in the taxonomy? The nature of a faceted taxonomy allows for this rug to be in several design categories, allowing for more fruitful searching.

An additional problem with the domain of www.persia.org is the lack of information and metadata for some of the examples. Because the rug image metadata on

persia.org is inconsistent and varies, some rugs offer detailed information, while others include next to nothing. This causes problems in both creating the taxonomy, since the facets are based on the examples in the collection, and also in assigning categories to individual examples within the collection. Researching literature and consulting with an expert led to several suggested options.

First, categories could simply be created for “unknown.” While this is the easiest solution to implement in terms of taxonomy creation, it is not necessarily the best for taxonomy use. Also, it is entirely possible that the data is not unknown, but rather just not included on the website.

Another option would be to speculate and make educated guesses in estimation of the information. For example, if the fiber content of a rug was unknown, but a majority of rugs from the same region were made from wool, it is a reasonable assumption that wool would be the fiber used. While speculation may lead to a few inaccuracies, it is likely to be more useful to researchers than leaving the data unknown. Inferred data must be disclaimed, so that users searching the collection will be aware of the speculation.

A third option would be to classify the rug in every single possible category. Continuing the example above, a rug with unknown fiber content would be classed under wool, silk, and cotton. This, however, was deemed too confusing for users of this taxonomy, especially because it gives the impression that the example would contain all three fibers. Ultimately, the decision to use the second option, with speculative data, was chosen, as it seemed the most beneficial to the user base.

The lack of a consistent, standardized vocabulary for the domain of Persian or even oriental rugs, along with missing information on the carpets in the persia.org image

collection, has made it difficult to get to a level of specificity that would have been more useful for carpet connoisseurs doing a search, and has suggested that a detailed taxonomy is not possible unless major standardization of terms has been accomplished first.