Material Culture in the Computer Age

An Assessment of the Parks Canada Terminology Record as a Means of Storing Conceptual Data

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The Parks Canada Project

Since the summer of 1992, the Faculty of Arts at the University of Ottawa has been involved in a project to complete the English version of the **Illustrated and Descriptive Dictionary for Historical Collections of Parks Canada**, a unit of Heritage Canada. The work is being done as part of the graduate courses **Terminology and Museology** and **Standardization in Terminology and Museum Documentation**, and also as a practicum in terminology for undergraduate English-speaking students of the University of Ottawa, mostly of the **School of Translation and Interpretation,** because of their training in terminology.

This dictionary, the first volume of which will be published shortly, is designed primarily for helping archivists and curators at Canadian Parks Historic Sites improve the identification, classification and cataloguing of artifacts in their collections. It is the logical supplement to the nomenclature established on this subject by the managers of Parks Canada collections (Canadian Parks Service, 1992).

The Nomenclature

The nomenclature applied in the Canadian Parks Service (CPS) is an adaptation of the well-known classification system developed by Robert G. Chenhall (1978) and revised by James R. Blackaby (1988) *et al* to the Canadian reality of the collections' content. It consists of a list of preferred and standardized terms designed to ensure consistency in indexing and cataloguing artifacts. Thus it serves as a thesaurus for the classification of collections at the various historic sites involved in the conservation of these artifacts.

The nomenclature is a dual-purpose tool. It allows for better identification and organization of artifacts in the collection, as well as for improving the management of information about the artifacts, which in turn makes it easier to locate, circulate and inventory the historical objects.

The classification system reflects the hierarchical organization of the object names. This system is based on the original function of the artifacts according to the criterion established by R. Chenhall for whom artifacts share a common fundamental characteristic: they were all created for a specific purpose which the author calls the **object's original function** (Chenhall, 1978, p.8).

There are three levels in the hierarchy of the nomenclature — category, class and subclass — in addition to the names of the objects. The major categories and the classes and subclasses were established using the functional criterion in accordance with R. Chenhall's views.

The first volume presents the terminology of the first three categories of the nomenclature — **Structures**, **Furnishings**, **Personal Artifacts** —and includes over 1,200 terms. The fourth category — **Tools and Equipment for Materials** —contains more than 1,700 terms and will be the subject of a second volume, with the remaining categories to be covered in subsequent volumes. In its entirety, the nomenclature (a total of ten categories), contains approximately 7,000 terms.

The Methodology of the Terminological Research

The dictionary entries are prepared using generally accepted terminological principles and methods (National Standard of Canada, 1992). According to these principles, each concept belonging to the nomenclature is the subject of a separate term record in accordance with the **single-concept principle**, which states that there is a one-to-one relationship between term, concept and definition.

The structure of the definition, which is the verbal expression of each concept, reflects the systemic study of all the concepts belonging to the nomenclature. This study is conducted according to a knowledge-based (onomasiological) approach instead of a word-based (semasiological) approach that is commonly used in general language lexicography. Therefore, the definitions reflect the conceptual reality representing the objects instead of the meaning of the words which designate these concepts. More specifically, the definitions are based on the description of the actual artifacts found in the catalogue cards used by the CPS archives services. Encyclopedic documentation, which provides scientific and technical information about these artifacts, is used to supplement the information provided by the catalogue cards. General dictionaries which convey information about the meaning of words, are only used as secondary documentation.

The CPS catalogue cards, which contain a photograph and a description of each artifact in the collection, are extremely useful in defining the concepts of the nomenclature, since the descriptions and

illustrations facilitate the identification of the **conceptual features** of each term. These cards also contain information about synonyms for the terms being defined. As well, Parks Canada curators act as consultants and provide invaluable assistance in preparing the definitions.

The Terminology Record

The Parks Canada terminology record, an example of which follows (see single-concept record: **JIG**), contains three sections divided into several fields.

Section A

This section includes information about the English term and its French equivalent, as well as the numerical code that corresponds to the term's place on the nomenclature.

Section A is divided into the following fields:

1. the code and name of the category to which the entry term belongs;
2. the code and name of the class within the category to which the entry term belongs;
3. the English term for the particular concept, composed of the object name followed by a comma, and a modifier (if there is one);
4. the nomenclature code identifying that particular term and its place in the nomenclature; and
5. the French term for the concept in question , composed of the object name followed by a modifier (if there is one).

Section B

This is the iconography section of the record. It includes the **ostensive** (or **demonstrative**) definition consisting of one or more illustrations or photographs that represent the most characteristic features of the concept. This **definition-by-illustration** complements the written definition in the following section of the record.

Canadian Heritage
Parks Canada

04-00178

Category 04 Class D060 Writer Heather Brown Belhumeur

TOOLS & EQUIPMENT FOR MATERIALS	FISHING & TRAPPING T&E

English Term	French Term
JIG	TURLUTTE

Image

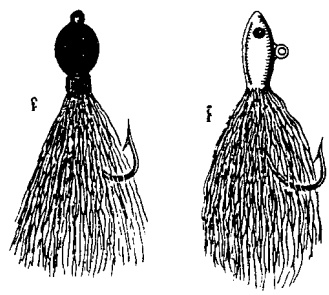
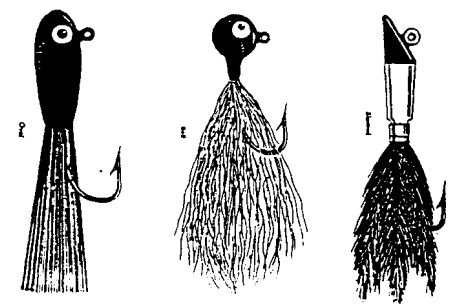


Image 2



A.J. McClane, ed. McClane's New Standard Fishing Encyclopedia and International Angling Guide, p. 502.

Physical Description

An artificial LURE (D060-04-00174) of various shapes, consisting of a metal head and one or more hooks disguised with a skirt of bucktail, feathers or nylon. The hooks may be either molded directly onto the head or attached to it by a wire leader.

Function

Used to attract fish. It is jerked up and down in the water to simulate a bait fish swimming.

Synonym

jigger

Exclusion

SINGLE-CONCEPT RECORD: **JIG**

Section C

This section consists of the written definition of the concept. The "Physical Description" field refers to the **analytical definition** of the concept. Also called **definition by genus and differentia**, this type of definition is used in terminology to identify the physical or morphological characteristics of an object. These are the **intrinsic characteristics** of a concept.

The "Function" field refers to the **synthetic or descriptive definition** of the concept. This type of definition is useful for identifying the extrinsic characteristics of a concept, that is, for identifying its relation to another object by describing the purpose, function, use, origin and subject field of the concept. The **functional definition** is an important part of the definition of the terms listed in the nomenclature as it relates to the basic criterion of primary function stated by R. Chenhall, a criterion on which the nomenclature is based.

The "Synonym" field includes terms that refer to exactly the same concept as the entry term. Archaisms, foreign names, and regionalisms are considered to be synonyms when they refer to this concept. Variations in spelling are also considered as synonyms for the purpose of this classification. The most useful sources for identifying synonyms are the CPS catalogue cards, the Artifact Information System (AIS) printouts which contain all the relevant information about each artifact, the Chenhall and Blackaby nomenclatures, and the documentation consulted during the research process.

The "Exclusion" field lists terms that may lead to confusion, particularly because of popular misconceptions surrounding terms. This is the case when terms are thought to be synonymous but in fact refer to different concepts.

Multi-concept Records

The **single-concept principle** is particularly useful for computing terminology data because the linguistic unit (i.e., the preferred term or its synonyms) provides easy access to conceptual information. After querying one of these terms stored in a data bank, the user obtains all the fields of the term record (including the three sections listed above) and all of them related to a single concept. However, this rule cannot always be rigorously applied because of the limitations of the term-coding system. This system not only prevents the creation of more than one record for polysemous terms (because the **single-concept principle** only allows one record for each term) but, in addition, it does not provide for the expansion of the nomenclature when a generic term must be broken down into two or more specifics according to the data collected during the terminological research. In fact, the user should to be aware of the occasional existence of many types, or specifics, of one artifact under a generic term, and thus on a single term record. However, because of the restrictive nature of the coding system, no code is provided for these specific concepts to allow for the creation of individual entries (term records) other

than the generic to which they are related. Therefore, the terminologist has no other choice but to include more than one definition on a single record: the definition of a generic term and two or more of its specifics. Consequently, because of the further existence of polysemous terms, and also because of the rigidity of the coding system which prevents the creation of individual records when unforseen specifics are identified, the terminologist has no other choice but to compromise with the **single-concept principle**.

Three types of multi-concept records, requiring more than one definition on each record, have to date been identified :

1. polysemous terms referring to two different concepts and requiring two different definitions for both the "Physical Description" and the "Function" (see record: BRUSH, WALLPAPER);
2. generic terms referring to two different specifics (or types of artifacts) with the same function but sometimes with a variation in use according to the morphological differences of the object (see records: i) SCRAPER, SHIPWRIGHT'S — 2 types/same function; ii) WRENCH, PIPE — 2 types/same function/variation in use);
3. generic terms referring to many different specifics (or types of artifacts) with the same function but sometimes with a variation in use according to the morphological differences of the object. In this case, only two or three (and occasionally four) of the most common types identified from the catalogue cards and documentation are listed (see records: i) COOLER, WINE —many types/same function; ii) WINDLASS, HOOPING — many types/same function/variation in use).

Conclusion

The above observations have implications not only for the theory of terminology but also for the computation of data relating to material culture. The **single-concept principle**, one of the cornerstones of the theory of terminology, is not always fully applicable even when terminologists deal with concrete concepts such as those representing man-made objects, and even when these objects are easily identifiable in the extra-linguistic reality. This situation stems from the polysemous nature of many of the terms belonging to the vocabulary of material culture and also from the restrictions imposed by the classification system and its coding system. Consequently, software developers must be aware of the fact that access by term unit does not necessarily lead to the retrieval of **single-concept** files.

Canadian Heritage
Parks Canada

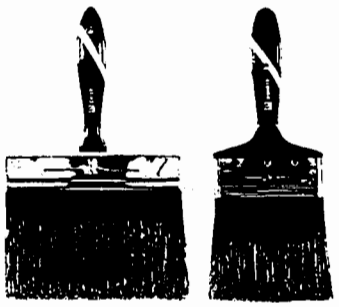
04-01329

Category 04 | Class D260 | Writer Armand Nina

TOOLS & EQUIPMENT FOR MATERIALS	PAINTING T&E

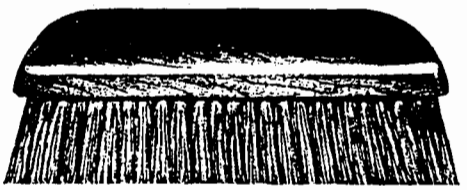
English Term	French Term
BRUSH, WALLPAPER	PINCEAU A ENCOLLER

Image



1) Gershon Wheeler, Interior Painting, Wallpapering and Paneling, p. 31.

Image 2



2) Caverhill, Learmont, and Co. Ltd. Catalogue, p. 634.

Physical Description

1) A BRUSH, PAINT (D260: 04-01331) 7 cm wide or greater, with generally flat coarse bristles.

2) A brush consisting of a rectangular wooden base, approximately 25 cm long and 5 cm wide, that is fitted at regular intervals with perpendicular coarse bristles, approximately 5 cm long.

Function

1) Used to spread glue on the unprinted side of wallpaper or to apply glue to the area of a wall to which the wallpaper will be applied.

2) Used for smoothing down wallpaper just after it has been applied to a wall to ensure proper adhesion and to get rid of air pockets.

Synonym

1) calcimine brush, kalsomine brush, pasting brush

2) paper hanger's brush, smoothing brush

Exclusion

MULTI-CONCEPT RECORD: **BRUSH, WALLPAPER**
(2 CONCEPTS/2 FUNCTIONS)

Canadian Heritage
Parks Canada

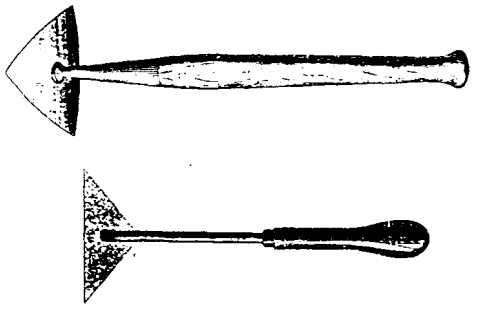
04-01644

Category 04 Class D320 Writer Brigitte Donvez

TOOLS & EQUIPMENT FOR MATERIALS	WOODWORKING T&E

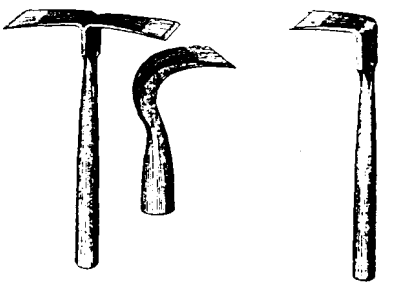
English Term	French Term
SCRAPER, SHIPWRIGHT'S	RACLOIR DE CHARPENTIER NAVAL

Image



a) R.A. Salaman. Dictionary of Tools Used in the Woodworking and Allied Trades, p. 446.

Image 2



b) R.A. Salaman. Dictionary of Tools Used in the Woodworking and Allied Trades, p. 447.

Physical Description

A SCRAPER (D320:04-01542), between 15-45 cm long overall, consisting of either:

a) a triangular blade, approximately 10-15 cm wide, that is sharpened along the edges and fitted to a wooden handle at one end, or

b) a metal rod of various sizes that is curved or bent at one end where it tapers into a bevelled blade, or is split and bent at right angles on either sides (giving it a T-shape) where it tapers into a bevelled blade.

Function

Used by shipwrights for cleaning the deck by scraping or for removing surplus pitch after caulking.

Synonym

boat scraper, ship scraper, yacht scraper

Exclusion

MULTI-CONCEPT RECORD: **SCRAPER, SHIPWRIGHT'S**
(2 TYPES/SAME FUNCTION)

Canadian Heritage
Parks Canada

04-01057

Category 04 | Class D220 | Writer: Brigitte Donvez

TOOLS & EQUIPMENT FOR MATERIALS	METALWORKING T&E

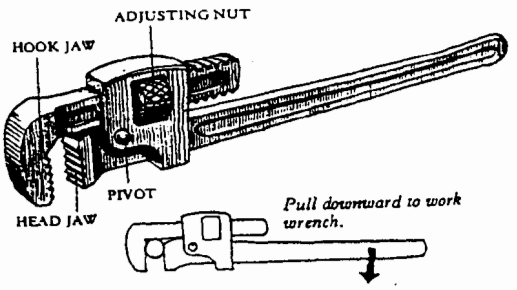
English Term

WRENCH, PIPE

French Term

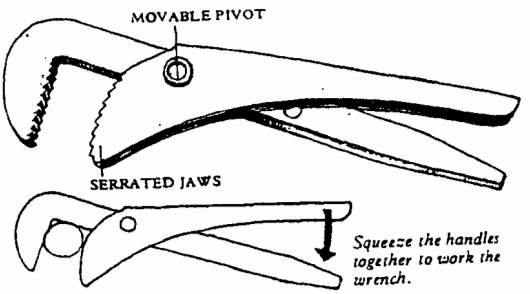
SERRE-TUBE

Image



a) Albert Jackson and David Day. Tools and How to Use Them: An Illustrated Encyclopedia, p. 262.

Image 2



b) Albert Jackson and David Day. Tools and How to Use Them: An Illustrated Encyclopedia, p. 262.

Physical Description

A wrench approximately 35-40 cm long and 5-10 cm wide consisting of either:
a) a flat bar of hardened steel that flares outward at one end to form a straight serrated head jaw and that is fitted with a curved, adjustable and serrated hook jaw directly beside and over the head jaw. The hook jaw is adjusted by means of a trapped nut working on a screw which allows the jaw to move up or down. The lower part of the steel bar acts as a handle for gripping; or
b) tongs consisting of a flat bar of hardened steel that curves inward at one end to form a hooked, sometimes serrated jaw and that has a second, flat bar of hardened steel that is sometimes slightly curved outwards attached to the first bar below the hooked jaw by a movable pivot in order to form a second, sometimes serrated jaw. The steel bars usually taper downward in order to form a pair of handles for gripping.

Function

Used to adjust, screw or unscrew pipes, cylindrical surfaces or nuts, bolts and screws with a smooth surface. In (a) the jaws are adjusted by the adjusting nut in order to grip the object tightly. In (b) the handles are squeezed together for a tight grip on the object.

Synonym

adjustable pipe tongs, footprint wrench, pipe tongs, Stilson wrench

Exclusion

WRENCH, MONKEY (D220: 04-01055); WRENCH,SLIP (D220: 04-01229)

MULTI-CONCEPT RECORD: **WRENCH, PIPE**
(2 TYPES/SAME FUNCTION/VARIATION IN USE)

Canadian Heritage
Parks Canada

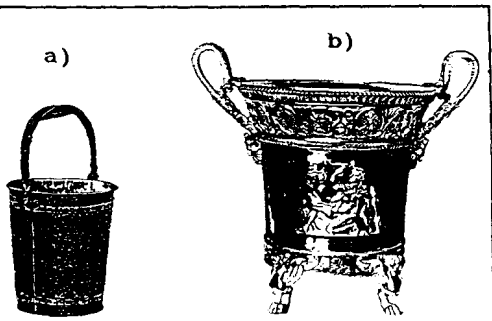
04-00638

Category 04 Class D120 Writer Heather B.-B.

TOOLS & EQUIPMENT FOR MATERIALS	FOOD SERVICE T&E

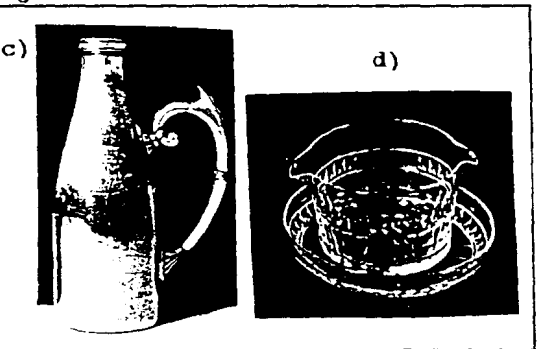
English Term	French Term
COOLER, WINE	RAFRAICHISSOIR A VIN

Image



a) Louise K. Lantz. Old American Kitchenware, p. 113.
b) Sylvie Girard. Histoire des objets de cuisine et de gourmandise, p. 233.

Image 2



c) HX. 82.12.1
d) HX.89.27.1A/B-4A/B

Physical Description

A cooler, made of metal, ceramic, silver or glass, of various forms such as:

a) a bucket with a bail handle;
b) a wide-mouthed cylindrical container, tapered towards the bottom, which may have a small handle on each side and may rest on feet or on a stand;
c) a bottle-shaped container which splits horizontally into 2 halves held together by a hinge on one side. It has an applied handle on the opposite side from the hinge, which splits to allow the body to open, and also has a securing pin in the top half of the handle which fits into a hole in the bottom half; or
d) a high, cylindrical bowl with 2 opposing pouring lips and a matching underplate.

Function

Used to cool a single wine bottle. It is filled with ice and the bottle is then placed into it.

Synonym

Exclusion

MULTI-CONCEPT RECORD: **COOLER, WINE**
(MANY TYPES/SAME FUNCTION)

Canadian Heritage
Parks Canada

04-01511

Category 04 | Class D320 | Writer: Brigitte Donvez

TOOLS & EQUIPMENT FOR MATERIALS	WOODWORKING T&E

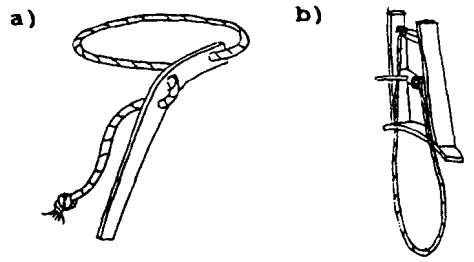
English Term

WINDLASS, HOOPING

French Term

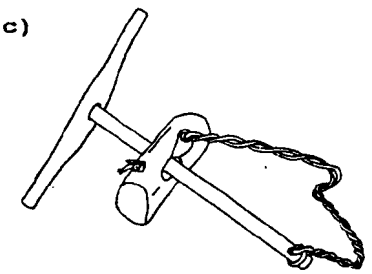
BRIDE DE SERRAGE

Image



a) & b) R.A. Salaman. Dictionary of Tools Used in the Woodworking and Allied Trades, p. 163.

Image 2



c) R.A. Salaman. Dictionary of Tools Used in the Woodworking and Allied Trades, p. 163.

Physical Description

A windlass of various forms such as:
a) a wooden flat bar slightly curved outward at one end with three holes at the curved end. A length of rope is passed through the holes to create a loop that is slightly wider than the largest hoop of a barrel.
b) four flat pieces of hardwood that are arranged in a square with one of the sides curved to fit against the barrel. A round and rotating bar is attached in the middle of the square, and is fitted with a small perpendicular handle. A length of rope is attached at each side of the handle on the transversal bar to create a loop.
c) a T-shaped wooden shaft and handle with one end of a length of rope attached at the bottom of the shaft and attached at the other end to a piece of hollow wood that slides along the shaft to form an adjustable loop.

Function

Used as a cramping device by coopers for drawing staves together into barrel form, particularly for lighter casks and dry work. In the first model a), the rope is placed around the staves and the wooden bar is used as a lever to draw the staves tight. In the second model b), the rope is placed around the staves and tightened by means of the handle by rotating the bar. In the third model c), the rope is placed around the staves and tightened by twisting the T-handle.

Synonym

capstan (b), cooper's windlass, windlass, Dutch hand (a), stave cramp

Exclusion

MULTI-CONCEPT RECORD: **WINDLASS, HOOPING**
(MANY TYPES/SAME FUNCTION/VARIATION IN USE)

Bibliography

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Chenhall, Robert G. (1978): *Nomenclature for Museum Cataloguing: A System for Classifying Man-made Objects*, Nashville, Tennessee, American Association for State and Local History.

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