

# THE SOURCES AND DEVELOPMENT OF FLORA VOCABULARY IN NEW CALEDONIAN FRENCH

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In recent years the study of semantic change and lexical innovation has shifted from the former "atomistic" study of individual words in isolation to the study of groups of words forming a semantic "field", and thus considered to be semantically "structured", i.e., systematically organised by the relationship of the meanings. This change in perspective has brought undoubted advances, but in one of the crucial aspects of lexical change, very little progress has been made: this is in the problem of classification. I have summarised elsewhere (Hollyman 1957) the inherent weaknesses and inaccuracies of the old logical and psychological classifications, and suggested firstly the necessity of establishing a *linguistic* classification along the lines of that proposed by Becker 1933, and secondly the desirability of taking into account both the general and immediate contexts of meaning.

In approaching the problem of presenting a descriptive and historical study of the vocabulary of New Caledonian French, it seemed best to choose for detailed examination a well-defined field in which the continuation and adaptation of traditional French vocabulary, and the borrowing of foreign words, would adequately reflect the processes of change involved in taking a European language into a very different environment. The field of flora, where 83% of the native plants is peculiar to New Caledonia, was an obvious choice, and as complete an inventory of written and spoken vocabulary as was possible to obtain was recorded. Once detailed study of the sources of this vocabulary began, along the lines mentioned above, a method of classification became apparent which, while it goes beyond the purely linguistic, does in fact seem to answer the needs of the situation. The difficulty of applying the formal methods of phonemic or morphological analysis to semantics is a commonplace of linguistics, and some linguists have excluded semantics from linguistics for this reason. The weakness of a purely linguistic classification is that, while it permits the integration of all forms of lexical innovation under the heading of *neologisms*, it still leaves unsolved the detailed classification of a numerous group of words which undergo no formal modifications whatsoever, but are subject to change in meaning. It is clear that to classify these words according to their differences, one must go beyond the non-existent linguistic criteria, and consider other factors.

The most significant advances in the understanding of semantic change, apart from the re-orientation towards structural study, have come from the emphasis given to the importance of social groups, and to the consideration of the relationship between word meaning and designatum (*Wörter und Sachen* school). Hence my stress on the general and immedi-

ate contexts of meaning: the semantic structure, the social organisation current, the material world; the act of speech, and the immediate situation in social terms. To consider only the linguistic side of this complex is to reject the possibility of understanding change and of classifying its forms; to consider only the social and material side is to deny the mediatory role of language in the formation of new concepts and of their linguistic "envelope". The flora names gathered in this New Caledonian work have therefore been considered from three points of view: what forms of change they show linguistically; the social groups who have provided the speakers making the change; and the extent to which the nature of the plant itself offers an explanation of the concept providing the initial meaning of the name.

The detailed classification which such an approach makes possible provides criteria which, if the analysis is taken far enough, can reflect the uniqueness of each individual lexical innovation, and at the same time mirror the various parallels among the innovations.

A nine-figure classification was devised which, with further adaptation, would go as far towards recording this uniqueness as is necessary; and would, after experimentation with computers, make possible the mechanical recording and sorting of innovations. This classification is given as an appendix, but is not further discussed here. To illustrate it, a classification number is quoted for the main examples given in what follows.

There is no difficulty, for example, in determining for a given flora vocabulary the relative role played by the effect of plants on the various senses of sight (form and colour), smell, taste, touch (but not hearing, with New Caledonian names); or the relative roles of such sense impressions as compared with the various use values of the plants.

A classification of this kind demands, of course, a vast amount of information. The linguist, in studying the formation of a flora vocabulary, needs detailed historical knowledge of the society concerned, and detailed botanical knowledge of the flora concerned. He cannot himself have this, but must rely on the work of historians and botanists. Even when he has all these specialists can offer, there is much that will remain unexplained, and will prevent in many cases a complete classification of the names involved, but this has always been so. Much can be reconstructed with little difficulty because contemporary observers recorded the vital information; more can be reconstructed by informed inference; the rest we can never know. In the examples given below to illustrate details of this classification of flora names in New Caledonian French, only those names are used where at least some of the vital information about social group or botanical characteristic is available.

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From the point of view of source, the vocabulary as a whole falls into three groups: metropolitan French words which survive unchanged; borrowings; and innovations. The first two are considered in this section.

1. *Metropolitan Words*. These may be words from the standard common language, as used at some earlier date but now in disuse (*pistache* "peanut"), or still current (*abricotier*). They may be words current only in certain regions (*pois* "bean"; see figure I), or words peculiar to a particular technical vocabulary, such as that used by botanists and nurserymen (*abutillon*), or by cattle and sheep farmers and pasture experts (*ray-grass* "*Lolium perenne* L., *rye-grass*").

2. *Borrowings* are usually classified into three groups: (a) full borrowings (*niaouli* "*Melaleuca leucadendron* L., paper-bark tree", from Balad *nyaulli*); (b) sense-borrowings (*peau* "bark", because the MN words for "skin" also mean "bark"); and (c) calques (*queue de rat* "(unidentified) roadside weed", modelled on *Wailu mana sipu*, literally "queue rat"). Within these divisions, borrowings are classified according to source: native Melanesian (*houp* "tree, *Montrouziera cauliflora* Panch. & Tri."; cf. Hollyman 1960); intercolonial (see Hollyman 1962), from Reunion (*bois noir* "tree, *Albizzia lebbek* (L.) Benth."), Tahiti (*tamanou* "tree, *Calophyllum inophyllum* L."), West Indies (*barbadine* "fruit-bearing vine, *Passiflora quadrangularis* L."), New Hebrides (*arbre à pirogues* "tree, *Gyrocarpus americanus* Jacq."), etc.; English, whether Australian (*acajou blanc* "*Eucalyptus acmenioides* Schau., white mahogany"), New Zealand (*kaori* "tree, *Agathis* spp.", a name of Maori origin), or American (*carpet-grass* "grass, *Axonopus compressus* (Sw.) Beauv.).

With both metropolitan words and borrowings, it is worth noting the manner in which the borrowing has occurred: through reading (*bois noir*, quoted above), through the name being brought by settlers (Reunionnais *ambrevade* "*Cajanus pseudo-cajan* Schinz & Guillaum., pigeon-pea"), by travellers or temporary residents (Tahitian French *bourao* (Tahitian *purau*) "*Hibiscus tiliaceus* L., sea-coast mallow"); through importation of the plant (*acajou du Sénégal* "*Khaya senegalensis* Juss., an African mahogany tree", as opposed to the local *acajou* "*Samocarpus atra* Vieill."), and in the case of local MN borrowings, the particular profession of the borrowers (naval artillerymen, for example, in the case of borrowings used in Tardy de Montravel 1857).

With both these groups, the nature of the plant itself has importance in so far as it is native, deliberately introduced, or accidentally introduced, and in so far as its identity with the plant designated in the original language by the borrowed word is at the level of family, genus or species. *Prunus armeniaca* L. (*abricotier*) is a deliberately introduced tree; the *bourao* is indigenous; seed of *Cuscuta corymbosa* Ruiz. & Pav. (*cuscute*, of metropolitan origin) was accidentally intro-

LF 1593 "haricot"

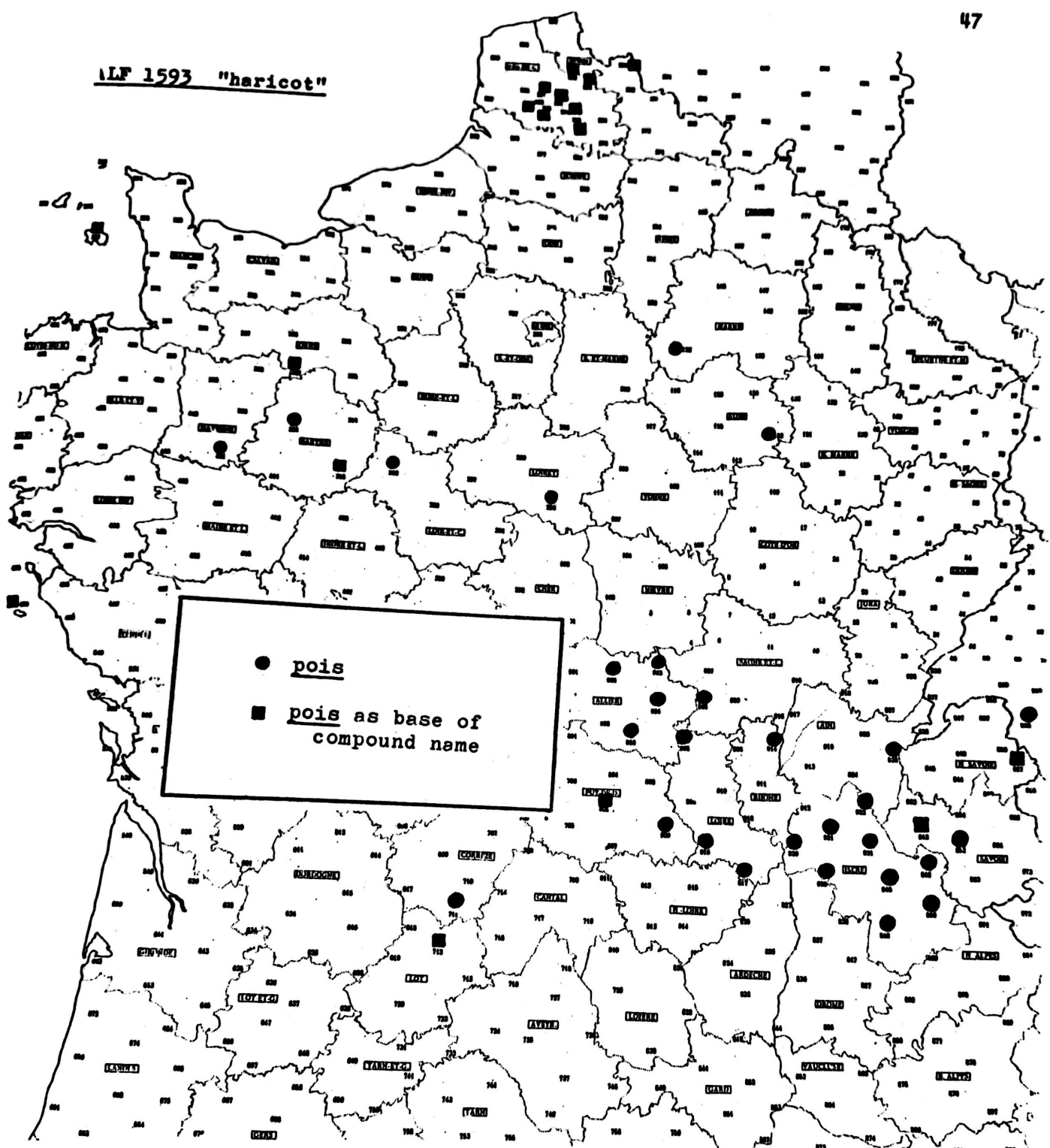


Figure 1: Metropolitan regional origins of New Caledonian French *pois* = "haricot", as used in the names *pois canaque* (*Phaseolus luteolus*), *herbe à pois* (*P. atropurpureus*), *pois sabre* (*Canavalia ensiformis*); cf. *pois du Cap* = "haricot du Cap (varieties of *P. lunatus*)", used in several French areas.



duced in 1863 with lucerne seed. Archaic *aralia* (modern *rallia*) gives identity at the family level; *abutilon* at the generic level; and most of the names quoted at the specific level. Sometimes the matter of identity involves a slight shift in meaning which does not warrant classification as an innovation: for example *santal* designates in standard French *Santalum album* Lour., but in New Caledonian French *Santalum austrocaledonicum* Vieill.

Following this classification, dictionary entries for metropolitan words and for borrowings would thus follow the pattern illustrated by these examples:

*chou*: metropolitan word, standard language; identical meaning, *Brassica oleracea* L. (specific identity); seeds left by La Haye in 1793, but introduction proper by the first missionaries at Balad (Rougeyron 1845, in *Archives de la propagation de la foi* 18(1846), 401). [112128210].

*irania*<sup>1</sup>: borrowing from local Melanesian (dialect unidentified); tall slim tree, *Pleurocalyptus deplanchei* Brongn. & Gris (specific identity?); name borrowed and used by timber workers (Heckel 1913: 75); now more commonly called *nul ne s'y frotte frisé*. [210114100].

*irania*<sup>2</sup>: borrowing from local Melanesian (dialect unidentified); very tall, thick tree, *Pancheria ternata* Brongn. & Gris (specific identity?); name used by natives (Jeanneney 1894:96); now more commonly called *chêne rouge*. [210440100].

### III

The innovations, which form the third group, all arise from the adaptation of metropolitan words and borrowings to the further description of the flora. They are, therefore, all motivated, i.e., semantically based on the structure provided by the first two groups. The motivation takes place at different levels. For example, the word *citronnelle* is introduced with a plant it designates in metropolitan French, *Cymbopogon citratus* (DC.) Stapf. By a primary motivation, *bois de citronnelle* is formed and designates a tree, *Nyoporum tenuifolium* Forst. Either at the same time, or as a result of an abbreviation of *bois de citronnelle*, the same tree is called *citronnelle*. In relation to this *citronnelle*<sup>2</sup>, a secondary motivation *grande citronnelle* is formed to designate *Nyoporum crassifolium* Forst.

Apart from these primary, secondary, etc., motivations, there are also what may be called *remotivations* (more usually called "popular etymologies"), and *deformations* resulting from non-semantic factors.

1. *Motivations*. These may be divided into *transfers* (cf. Bec 1960:301-02), *transpositions*, *derivatives* and *compounds*, each subdivided according to whether the base word is a metropolitan or borrowed form. For the transfers and transpositions, it should be noted whether the process occurs with replacement, bivalence or loss of primary meaning; with the derivatives, whether the forms are the result of prefixation, suffixation or abbreviation; and with the compounds, the mode of augmentation of the base: preposition or postposition of a qualifier, addition of noun phrase, etc. The same linguistic criteria of classification apply to the motivations whatever their level. From the social aspect, these names carry motivated meanings which are either identifications, or characterisations, or descriptions of the plants so designated, and these names are given by particular groups of people. The identification, characterisation or description is given on the basis of a characteristic feature or a functional feature of the plant, as seen by the particular group; and one characteristic feature, localisation of origin or of growth, is numerically important enough to be separated off as a special aspect distinct from other characteristic or functional features. The characteristic feature involves form, colouring, smell, touch, weight of the plant in general, or of its trunk, branches, bark, leaves, buds, flowers, fruits, seed-pods, seeds, roots, wood or sap. The functional feature involves the natural action, reaction, or usefulness in relation to man or animals of one or other of the same parts of the plant, with edibility, workableness and medicinal value worth singling out from the feature of usefulness. Localisation involves one of the following: country of origin, introducer (name or profession), or centre of dispersion of an introduced plant; general or specific localisation of area of growth, topographical localisation (mountain, plain, forest, proximity to fresh water, marshes, sea-coast, mineral areas), and type of cultivation (wet or dry).

Here is a series of dictionary-type entries illustrating the way this classification is used:

*moustiquaire*: metropolitan word ("mosquito-net") transferred to designate two trees, *Cryptocarya lanceolata* Guillaum, and *C. macrocarpa* Guillaum. The transfer, carried out by settlers, probably forestry workers, results from a characterisation of the tree by the form of its dead leaves which, after the decay of the fleshy parts, have a membranous network similar to that of a mosquito-net; the establishment of the parallel was no doubt assisted by the existence of the synonymous name *fausse citronnelle*, arising from the smell of the bark; citronella is, of course, a well-known mosquito repellent. The old sense of *moustiquaire* is retained. [512614514]

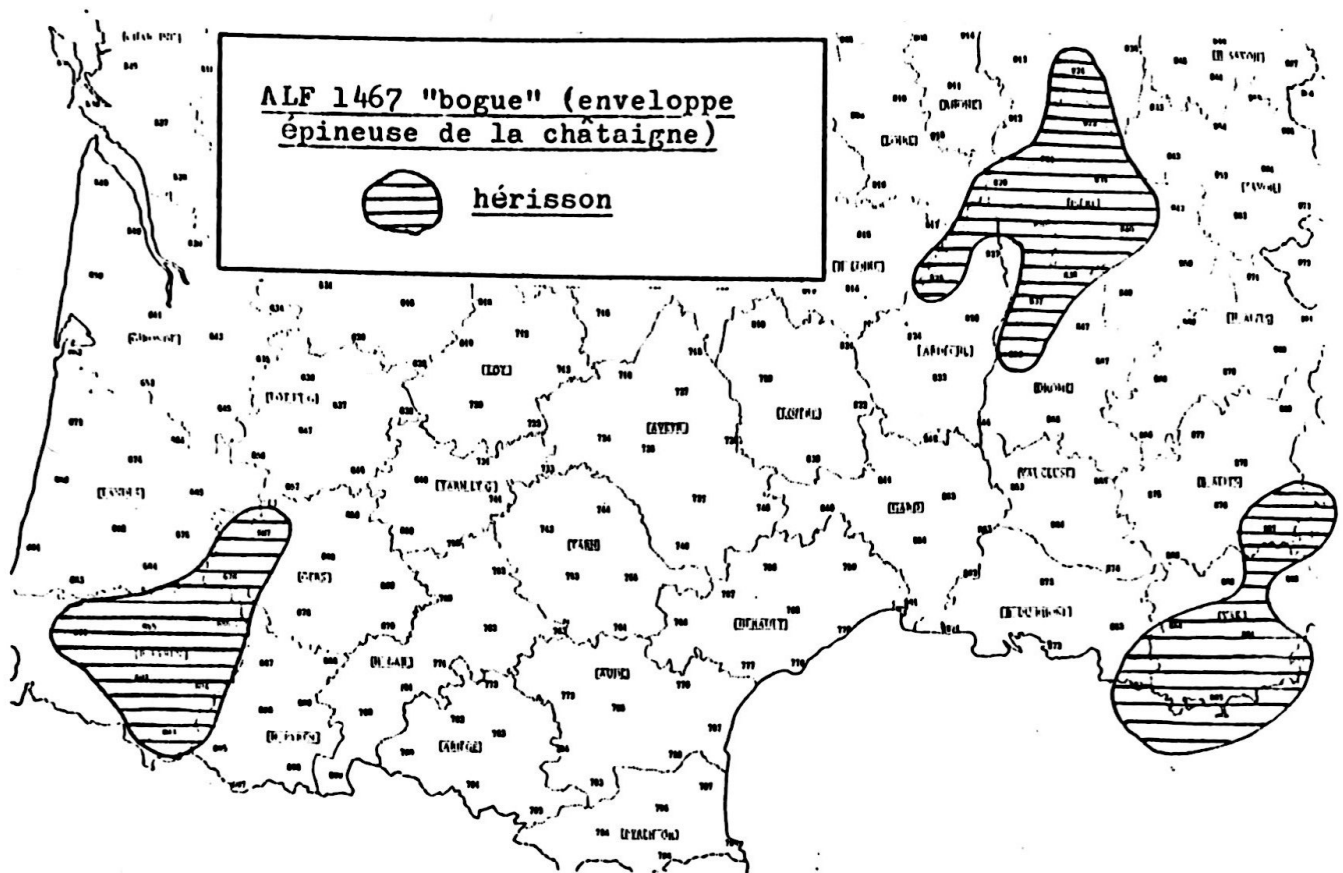


Figure II: Metropolitan regional origins of New Caledonian French *hérisson* "*Urena lobata* L.", a transferred name.

*hérisson*: a metropolitan regional name (see figure II) for the prickly covering of the chestnut, transferred in New Caledonia to designate *Urena lobata* L., also known as *l'herbe à châtaignes*. A characteristic of a plant, presumably by cattle-farmers, based on the form of its seed covering, and mediated by the alternative name *herbe à châtaignes*. The true chestnut does not grow in New Caledonia, and the old sense of *hérisson* has been lost. [513612517]

*gaiac*: a metropolitan standard name for trees of the *Guaiacum* genus, transferred (perhaps via the name *faux gaiac*, first found in the same work as *gaiac*, viz., Sébert 1874) to designate *Acacia spirorbis* Labill. The name results from an identification made by "les ouvriers européens" (Sébert 1874:262) on the basis of the use of *Acacia spirorbis* for the same purposes as the metropolitan *Guaiacum* (pulley sheaves, wooden screws for work-benches, etc.). The old sense of *gaiac* is lost. [513514658]

*curieux*: a metropolitan adjective (with occasional substantival use) transposed to designate trees of the *Simplocos* genus. The name is a characterisation, based on the fact that these trees are rare and, being tall and slender, show above the rest of the forest; the social group initiating the name is not known; the word retains its original meaning and function, and is therefore bivalent. [532600510]

*haricotier*: a derivative of *haricot* (metropolitan word), by suffixation. A descriptive name for the shrub *Sesbania grandiflora* (L.) Pers., based on the edibility (after cooking) of the seed pods. [551610647]

*herbe à bengali*: A compound formed from base word *herbe* with noun phrase; a descriptive name for a number of plants (not necessarily grasses, as a *Stachytarpheta* (*Verbenaceae*) is included), the seeds of which are eaten by the *bengali*, an introduced bird (*Estrilda* spp.); a name used both in settlements and on cattle stations, but uncommon in Noumea, the only city. [574710637]

*sève bleue*: a compound designating a rare tree, *Chrysophyllum sarlinii* Guillaum. The name is a characterisation, based on the blue-green sap exuded by the bark, and used by forestry workers. [571614529]

*fausse ramie*: a compound formed to distinguish *Pipturus velutinus* Wedd. from the *ramie*, *Boehmeria* spp. Compounds with *faux* are very numerous among flora names in New Caledonia and represent a modified identification, the parallel in this particular case being based on the use of the bark of both plants to provide fibres (for nets, etc.). [573510653]

*collier blanc*: a secondary motivation, representing the transfer, with bivalent usage, of a local bird-name to a tree-name. The bird name *collier blanc*<sup>1</sup> is a local formation, designating a fat white-throated pigeon (*Columba vitiensis hypoenochroa* Gould). This pigeon is often seen eating the round fruits of a tall forest tree, *Ilex sebertii* Panch. & Seb., which has been given the transferred name *collier blanc*<sup>2</sup>. [610610636] \*

*collant*: a secondary motivation, representing the abbreviation of a locally-created compound, *pois collant* [pwa kol<sup>o</sup>], designating a plant, *Desmodium* sp., which has sticky seeds that adhere to the legs and to animals [the plant is also called *les amoureux*, a development of regional metropolitan *herbe d'amour*, etc. (cf. Mercier 1951: 135-139), and, by dérivation synonymique, *les camarades*.] [653610617]

*faux kaori*: a compound formed on a borrowing (see above, p.46) to designate a conifer with lanceolate leaves, *Podocarpus longifolius* Pilg. Despite the resemblances between this tree and the *kaori*, the name *faux kaori* is of commercial origin, resulting from the fraudulent sale of New Zealand *Podocarpus* (*kahikatea*) as *kauri* (cf. Sébert 1874: \_\_\_\_\_)

\* On the transfer of animal names to plant names, cf. André 1956.

17, 138). [583516518]

*faux tamanou de montagne*: a secondary motivation based on the local compound *tamanou de montagne*, formed on a borrowing (see above, p.46). There are various compounds formed on *tamanou* to designate trees of the genus *Calophyllum*, the compounds being descriptive names indicating the area of growth (sea-coast, mountain, etc.) of the particular species. Parallelling these is a series of *faux tamanou* and compounds, designating various species of the genus *Geissois*, the wood of which resembles that of the *tamanou*. [687714528].

2. *Remotivations*. These represent an attempt to reinfuse motivated meaning into names that have lost such a value or the apparent value of which appears pointless. They normally affect metropolitan names or borrowings, and may be either ephemeral or permanent. *Pomme épineuse* is a metropolitan name for the poisonous *Datura stramonium* L. *Piquant* has generally replaced *épine* in New Caledonian French, although one could not say that *épine* is not used at all. The remotivation *pomme à punaises* has been noted by Guillaumin 1951: 429, *punaise* designating plant as well as animal parasites, although as far as I know this plant is not subject to their attack. This remotivation is so far not permanent.

Where introduced plants have no common name, the botanical name may be subject to attempts at motivation. The leguminous plant *Calopogonium mucunoides* Desv. has been introduced into New Caledonian pastures, and is known among botanists and agronomists as *callo* or *calopo*. In Jacques 1935: 76, the attempted remotivation *galopogonium* [galopogonjɔm] is found, and I heard it used on a cattle station myself in 1961. These remotivations are not numerous.

3. *Deformations*. These affect both metropolitan names and borrowings, and appear to be due to factors such as assimilation and dissimilation. An example is found in the variants of the borrowed name, *kikuyu*, of the imported grass *Pennisetum clandestinum* Hochst.: [kykyjy] [kikijy] both given by Jacques 1935: 49, 198, and both heard by me in 1961. Guillaumin 1953: 267 spells the word *kikouyou*, which reflects the pronunciation one would expect. [kykyjy] and [kikijy] exemplify the deformation discussed here.

#### IV

There are many observations one can make about the linguistic aspects of New Caledonian French flora names, and some of them are noted here. The classification used brings readily to notice the fact that in the innovations the commonest modes of formation are the transfers and compounds, while the transpositions and derivatives are rare. Of considerable significance is the prominence among compounds of the noun + noun type, not only *per se*, but as a replacement for an earlier formation of noun + noun phrase. This is particularly common with



names formed on the base *bois*: *Canariellum oleiferum* Engl. is *bois d'absinthe*, *bois absinthe*; *Fagraea schlechteri* Gilg. & Ben. is *bois à tabous*, *bois tabou* (*tabou* = "sculptured figure"); *Dysoxylum macranthum* C.DC. is *bois d'ail*, *bois l'ail*; etc. Alongside these there are many such as *bois pernod*, *bois aspirine*, *bois barre à mine*, *bois bouchon*, *bois carotte* (also called *carottier*), etc. The relatively high frequency of this type of formation appears to be the result of two main factors: (1) the introduction of such terms by settlers from Reunion, where such compounds have become common through creole influence; (2) the influence of the local Melanesian languages, in which such juxtaposition is a normal pattern (cf. *Wailu moa wi re* "house man that = that man's house"; *Pinje vi nga vi kahyuk* "the house the man = the man's house"; and note *queue de rat* above).

Considerable use is made of what Bec 1960: 305 calls *nominaux passe-partout* and *désignations prototypes*. The *nominal passe-partout* is a base of very general meaning used with a qualifying word or phrase, and in New Caledonian usage the outstanding examples are *arbre*, *bois* and *herbe*. The vagueness of meaning of the base is well exemplified by *herbe* which in 58 compounds designates plants in the following families: Gramineae 15, Cyperaceae 1, Chenopodiaceae 1, Cactaceae 1, Leguminosae 3, Euphorbiaceae 2, Malvaceae 2, Enothraceae 1, Asclepiadaceae 1, Borraginaceae 1, Compositae 2, Verbenaceae 2, Unidentified 13.

The *désignation prototype* provides a base name which is more restricted in semantic scope. The outstanding examples are *chêne*, *hêtre* and, to a lesser extent, *pois* (on this last see Fig. I). There are no oaks in New Caledonia, and in the local French *chêne* designates trees of various families but all having "branches sinueuses au bois mi-lourd" (Sarlin 1954: 2). As a *désignation prototype*, *chêne* figures in 22 compounds. Some of course, are not local innovations. *Chêne rouge* may serve as an example of what degree of synonymy can be involved in such compounds as these. The name designates 58 species of tree in the family of Cunoniaceae, and one each in the families of Sapotaceae, Meliaceae and Myrtaceae. The Cunoniaceae comprise 26 *Pancheria*, 16 *Cunonia*, 11 *Codia*, and 5 *Weinmannia*. Sarlin 1954: 137 observes that "les bois ne sont pas semblables", but 142: "les chênes rouges sont lourds, durs, trop nerveux". It would in fact appear that woods of varying shades of red provide a common basis for the designation, but in considering the problem one should attempt not so much to see the common basis that often does exist (as is clearly the case with the 10 *faux tamanous*, cf. Sarlin 1954: 137), but attempt to reconstruct what may rather be a chain process of gradual assimilation of the unknown to the known. The first recorded *chêne rouge* is *Pancheria ternata* Brongn. & Gris, and the name was given by "les ouvriers" (Sébert 1874: 206). Reconstruction of the chain thereafter is not as yet possible, but the relationships perceived at various stages in the growth of the

number of trees so named may have been different (reddish branches, bark, etc.). The 61 *chênes rouges* have more in common than the 45 *herbes*, but may semantically fall into subgroups nonetheless. This can be illustrated by the various *faux kaoris*. As explained above (p.51-2) *Podocarpus longifolius* was so called because of the fraudulent sale of New Zealand *Podocarpus* as kauri. *Leucopogon dammarifolium* Brongn. & Gris is called *faux kaori* because of the kauri-like leaves; *Cryptocarya macrocarpa* Guillaum, because its bark is like that of the kauris; and *Austrotaxus spicata* Compton has several points of resemblance with both the kauris and the *Podocarpus*. The synonymy of a given name may thus be the result of a process of semantic convergence on the same object of reference and the resulting homonymy can cause embarrassment and, even when the plants involved have other names as well, lead to changes. This is illustrated by fig.III, where the existence of two different *herbes à piquants*, both common on the west coast has led to use of another name for one of them. On the other hand the existence of two *piquants* is not embarrassing, because the grass is a west coast plant, and the tree is mainly grown on the east coast: the two plants are thus rarely in proximity.

HETEROPOGON CONTORTUS

(L.) Beauv.

Grass

prickly seed cases

which catch in the fleeces, work into flesh, cause cysts

grows on west coast "savannah", mainly rolling hills

localisation feature

*herbe de montagne*

functional feature

*herbe à moutons*  
*herbe tue-moutons*

CHRYSOPOGON ACICULATUS

(Retz.) Trin.

Grass

prickly seed cases

creeping stalks, flat on ground

characteristic

*herbe à piquants*<sup>1</sup>

*herbe à piquants*<sup>2</sup>

*herbe à petits piquants*

*piquant*<sup>1</sup> x *piquant*<sup>2</sup>

ERYTHRINA INDICA

Lamk.

Tree

thorns on branches esp. noticeable as flowers appear before leaves

features

*herbe plate*

*arbre à piquants*

Figure III

The sources and interplay of synonymy and homonymy in flora vocabulary.

## V

From the social point of view little has so far been said, mainly because acceptable information is available for only a relatively small number of names. From the details given by the few authors who consider the information of value (mainly Sébert 1874, Jeanneney 1894, Heckel 1913, and Sarlin 1954), the principal groups involved in the formation of the flora vocabulary have been the forestry workers, the farmers, and "les ouvriers". The term farmers here covers "éleveurs" raising sheep or, mainly, cattle, and "colons", which in the earlier days meant essentially "cultivateurs", as some farmers were "colons-éleveurs". The term "ouvriers" as used before 1900 generally means "ouvriers de la transportation", working under the direction of military or naval technicians. When Pancher ("jardinier botaniste") and Sébert ("capitaine d'artillerie de la marine") undertake the survey of forest resources which results in the exploitation of the Baie du Prony forests, they are accompanied by Lecoq, "maitre charpentier de la direction du port (de Nouméa)".

Sébert himself explains the technical basis for new names as follows: "Il est un fait constant, c'est qu'à l'aspect, au poids spécifique, à la façon dont il se met en oeuvre, à la résistance qu'il présente aux outils, en un mot, d'après un certain ensemble de propriétés caractéristiques, un ouvrier reconnaît un bois qu'il a l'habitude de travailler, sans avoir pour cela besoin de voir l'arbre sur pied et de constater ses propriétés botaniques.

"Il arrive même fréquemment, qu'un ouvrier qui travaille un bois exotique qui lui était jusque-là inconnu, et dont il ignore la provenance, l'assimile sans hésiter à un bois indigène qui lui est familier, et lui en donnerait même le nom s'il n'en différait le plus souvent par la couleur." (Sébert 1874:63-64).

The technical experience of European timbers is the obvious reason for the many transfers and the many compounds, and these are extended, as knowledge of local timbers grows, to further new timbers.

The variety of social groups which become involved in naming the flora of a country new to them is the first of the two main reasons for the "polymorphism" (Bec 1960: 310) of names used for a given plant. *Fagraea schlechteri* was used by the Melanesians for carvings (*tabous*) and colonists in contact with them called it *arbre à tabous*, *bois à tabous*, *bois tabou*, whereas some of the Melanesians, in speaking French, gave it the name *arbre à pétrole*, *bois pétrole*, because its sap burns freely and its branches were used as torches; other Europeans (possibly forestry workers?) called it *poirier*, from the form of the fruits. The same tree is also, in some country settlements, called by the local Melanesian name: at Wailu *bijouin* (wailu *bisué*), at Poindimié *médégo*

(paci madugo), at Pinjen biouin.

Regionalism provides the second main basis for polymorphism, and applies to other than Melanesian borrowings. Of the names quoted above (p.51) for *Desmodium* sp., *les amoureux* is essentially west-coast usage, *les camarades* east-coast, while *pois collant* is used everywhere. A weed of the Cyperaceae family is called *papyrus* on the east coast, *poll de chien* at Pwebo, and *petit-Jean* at Pinjen.

To these factors should be added other lesser ones such as differences in usage by different generations: *Passiflora foetida*, called *les pocpocs* and *les poi-pois* on the east coast, and *les glouglous* at Pinjen, is called *les pète-pète* by young people.

The theoretical significance of the role of these social factors is considerable. If one stands aside from them, considering only the relationship between name and object, the link is arbitrary: for *Heteropogon contortus* three different characteristics of the plant provide motivation for its different names, and there is no more reason for use of the one than either of the others, or indeed for the non-use of further characteristics not reflected in the names. But once the social groups are taken into account the arbitrariness disappears, and the name appears necessary in the light of their experience past and present. The timber worker who suffers headaches, and irritation in the nasal cavities, from sawing *Dysoxylum nacranthum* has the smell of the wood sufficiently impressed upon him to name the tree after it, and according to his experience of smells, he calls the tree *bois d'ail* or *bois d'absinthe*. The name is thus arbitrary at the abstract, philosophical level, but necessary at the social, practical level.

From a more general point of view, social factors are important for the continued synonymy and polymorphism of flora names. As Sébert 1874: 7-9 points out, the choice of Noumea as the main port of New Caledonian European settlement led to the neglect of information previously gathered in the north-west about forest resources, so that in 1866 the country was importing timber from Australia, New Zealand and even California. It was following the exploration in the south by Pancher, Sébert and Lecoq that exploitation of local resources began. As a result of this, many earlier-used names disappeared, in particular early borrowings from Melanesian. As the European-introduced economy diversified, many industrial plants were tried, sometimes on a large scale: sugar-cane, cotton, castor-oil, tobacco, hemp, kapok, coffee, rubber, vanilla, etc. Of all these only coffee has remained significant, but the others have left their mark in a largely passive area of the vocabulary, surviving through memories, minor use or awareness of plantation remnants. Above all, the failure to develop any major industry based on agricultural or forest activities able to compete in importance with mining, has led to a growing stagnancy of agricultural and forest

work, and a population drift to Noumea. This situation has fostered the survival of regionalisms which, while they are not a major characteristic of the flora names, are nevertheless noticeable enough to impress the observer, and above all, it has prevented the development of a standardised vocabulary.

## VI

As the analysis of the innovations from the point of view of their reflection of plant characteristics is not yet completed, it is not possible here to give statistics of the relative importance of these characteristics. There is, nevertheless, one point that can be made. Emphasis has been laid earlier in this paper on the role of *situation* in determining which characteristic is reflected in the name given. Situation is linguistic as well as social, however, and alongside the social and material factors, there are the linguistic factors.

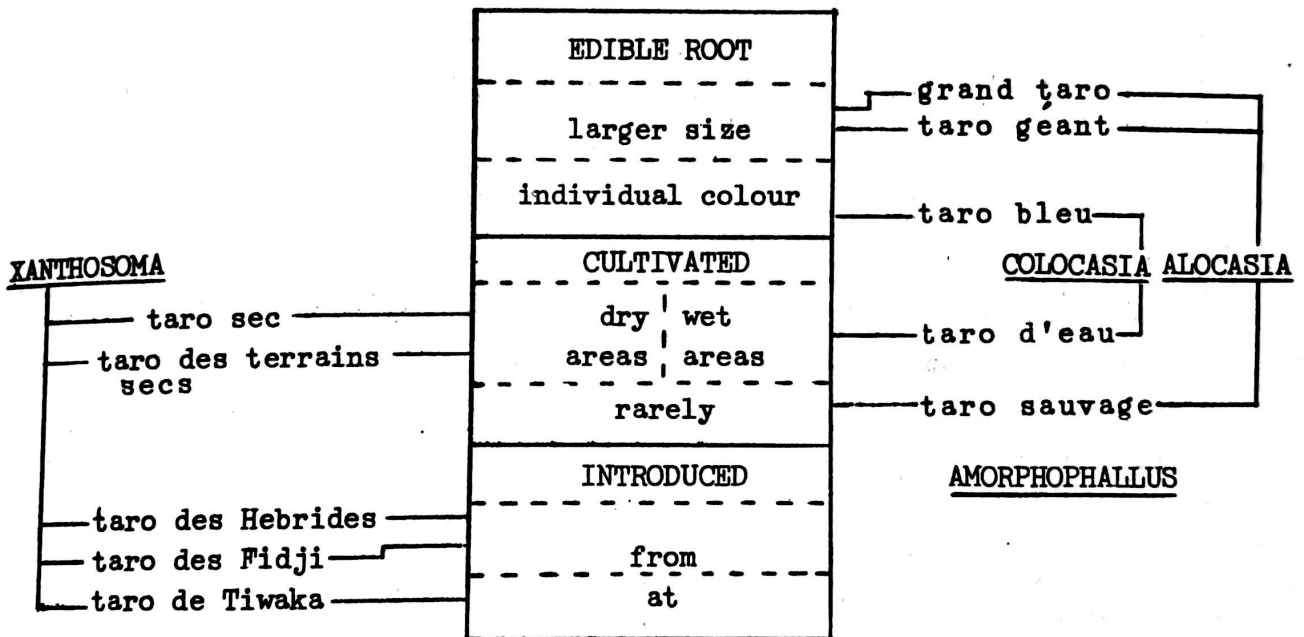


Figure IV; Explicit and implied oppositions in taro names.

Figure IV illustrates this with the names for the different plants called *taro*. The differences between them are such that further qualification of the names is felt necessary, hence *taro bleu*. *Alocasia* produces a larger root than *Colocasia*, hence *grand taro*, *taro géant*. *Xanthosoma* is introduced, so its provenance: *taro des Hébrides*, *taro des Fidji*, or its point of introduction: *taro de Tiwaka*, is introduced to distinguish it. Moreover, it is grown in dry soils, as opposed to the very wet soils needed for *Colocasia*, and we then have *taro sec*, *taro des terrains secs*, opposed to *taro d'eau*. Compared with *Colocasia* and *Xanthosoma*, *Alocasia* and *Amorphophallus* are only rarely cultivated: this justifies calling them *taros sauvages*. The semantic oppositions thus capitalise on the material differences, but are not all



given explicit linguistic form: *taro sauvage* is not countered by \**taro cultivé*, but by the pair *taro d'eau*: *taro sec*; similarly, *taro des Hébrides* is justified by zero mention of origin with the others. The *taro*: *taro géant* / *grand taro* opposition involving only *Colocasia*: *Alocasia*, is a borrowing from Melanesian usage cf. *Dubea nè (Colocasia): nè bwa ("Colocasia grand", i.e., Alocasia)*, etc. (see Leenhardt 1946: 350-351).

There can be little doubt that this lack of explicit linguistic expression of all semantic oppositions is a permanent feature of the organisation of a vocabulary. At the same time it seems very probable that the social factors mentioned in the preceding section are the reason for what at times appears to be a singular lack of organisation: the overworking of a base in the formation of compounds, polymorphism, synonymy. The essentially passive nature of large sectors of the vocabulary, resulting from the lack of regular active concern with the plants, is clear from examples such as that given in Figure V.

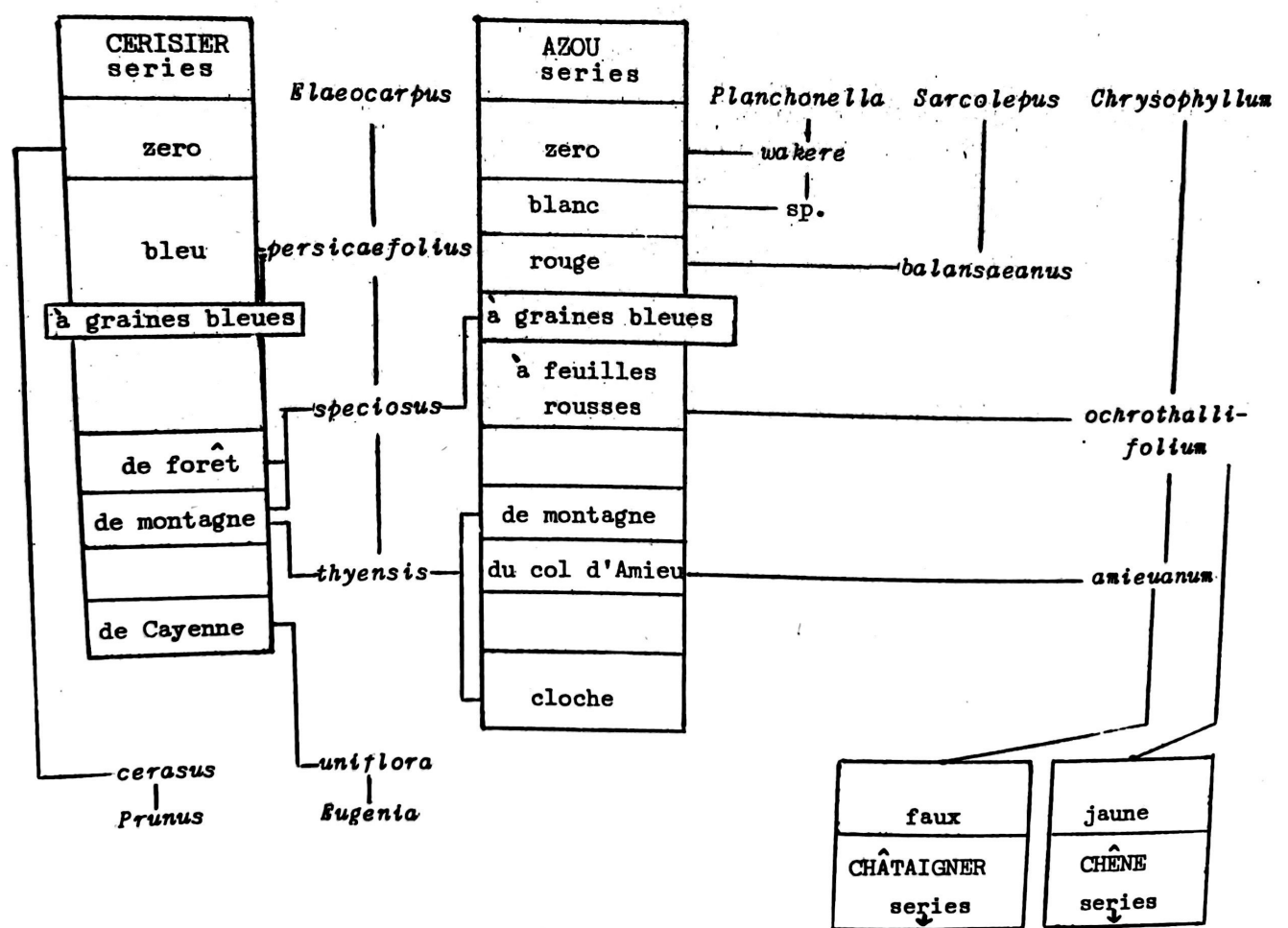


Figure V: System and lack of system in name series formed of compounds using the same base words.

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Compounds formed on *azou*\* and *cerisier*, as names for trees of the *Flacocarpus* genus, show polymorphism and synonymy, and the number of innovations is increased by the use of other compounds on the same bases for trees of other genera. There are, of course, differences in use with several of the names: *azou du col d'Amieu* appears to be a botanists' name, whereas *faux châtaigner* is more common; the same appears to be true of *azou à feuilles rousses* in comparison with *chêne jaune*. This suggests that the inventory of a vocabulary must take into account social variation in usage when the degree of systematisation is being considered. The common language would have a limited number of the names; the botanist is accustomed to using the scientific names, with their shinier veneer of accuracy; the forestry worker may not use the same terms as the timber merchant or the carpenter. In the vocabulary of each of these professions and trades, the degree of systematisation would, one suspects, be greater than in the full inventory. In fact, whatever systematisation is apparent in the inventory would reflect mainly the systematisation present in the vocabularies used by the technicians. This does not conflict with the idea already expressed that the decline in forest exploitation and in agriculture is the reason for the polymorphism and synonymy of the flora vocabulary: this decline naturally affects the technical sectors of the inventory as much as it does the areas appearing in the common language.

## VII

These are the preliminary conclusions reached from a survey of over 1000 flora names used in New Caledonia, in both the written and spoken languages. Study is being actively pursued, and the full vocabulary, along with that of the fauna, will be published later.

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\* The word *azou* is considered locally to be of Lifu origin, but M. Lenormand informs me that this is not so; he suggests a connection with African French *azoube*, designating a similar hardwood. M. Haudricourt has suggested Malagasy *hazo* "tree" as the source word.

## APPENDIX: NUMERICAL CLASSIFICATION

## LINGUISTIC

100 Metropolitan French	110 standard 120 N. regional 130 S. regional 140 technical	150 commercial 160 scientific 170 literary	001 archaic 002 current
200 Full borrowing 300 Borrowing of meaning 400 Calque	010 local Melanesian (mainland)		011 far north 012 Gomen 013 Yengen-Voh 014 Kone 015 Poneriwen
	020 local Melanesian (Loyalty Is.)		016 Wailu 017 Bourail-Poya 018 Canala-La Foa 019 South & I. of Pines
	030 other local languages		021 Mare 022 Lifu 023 Iai
	040 intercolonial (colonial innovation) 050 Intercolonial (colonial borrowing) 060 English		031 Polynesian (Uvea) 032 Indonesian 033 Vietnamese 001 Reunion 002 Tahiti 003 Antilles
			004 Africa 005 New Hebrides 051 Pacific English 052 pidgin 053 Australian
500 Primary Motivations	510 Transfers from 100 520 Transfers from 200 530 Transpositions from 100 540 Transpositions from 200		054 New Zealand 055 American
	550 Derivatives of 100 560 Derivatives of 200		001 with replacement 002 with bivalence 003 with loss
	570 Compounds of 100 580 Compounds of 200		001 suffixation 002 prefixation 003 abbreviation 001 subst. + adj. 002 subst. + subst. 003 adj. + subst. 004 subst. + phrase 005 verb-stem + phrase 006 adj. + subst. + adj. 007 adj. + subst. + phrase
600 Secondary Motivations 700 Tertiary Motivations (subsidiary figures as for 600, with 610, etc. replacing 510, etc.)	610 Transfers from 510, 30, 50, 70 620 Transfers from 520, 40, 60, 80 630 Transpositions from 510, 30, 50, 70 640 Transpositions from 520, 40, 60, 80		as for 510-540
	650 Derivatives of 510, 30, 50, 70 660 Derivatives of 520, 40, 60, 80		as for 550-560
	670 Compounds of 510, 30, 50, 70 680 Compounds of 520, 40, 60, 80		as for 570-580
800 Remotivations	810 of 100 820 of 200		001 ephemeral 002 permanent
900 Deformations	910 of 100 920 of 200		001 assimilation 002 dissimilation

## SOCIAL

100 Metropolitan Frenchmen	010 colonists	001 agriculturalists
200 Colonials	020 temporary residents	002 graziers
300 Foreigners	030 visitors	003 fishermen, hunters
400 Autochtones	040 at home	004 timber & wood workers
500 Identifications		005 miners
600 Characterisations		006 industry & commerce
700 Descriptions		007 armed forces
		008 missionaries
		009 administrators

## MATERIAL

100 Native plant	010 specific identity	
200 Deliberate introduction	020 generic identity	
300 Accidental introduction	030 family identity	
500 Characteristic feature	510 form	000 in general*
	520 colour	001 trunk, roots
	530 smell	002 branches
	540 taste	003 bark
	550 touch	004 leaves
	560 weight	005 buds, flowers
600 Functional feature	610 natural action	006 fruit
	620 natural reaction	007 pods, seeds
	630 natural use	008 wood
	640 edibility	009 sap
	650 workableness	
	660 medical value	
700 Localisation of origin (710-730) or growth (740-760)	710 country of origin	
	720 introducer	721 name      722 profession
	730 local centre of dispersion	
	740 general localisation	
	750 specific localisation.	
	760 topographical localisation	761 mountain    765 marshes
		762 plain        766 coast
		763 forest      767 mineral soils
		764 proximity to fresh water
	770 type of cultivation	771 dry
		772 wet

\*In any other section of the classification except this, the appearance of a zero indicates "no information".

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