

A tree-guided tour of the *Eḷuttatikāram**

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SUMMARY: Tree-related vocabulary figures prominently inside the TE (*Eḷuttatikāram* of the *Tolkāppiyam*), an ancient treatise dealing with the phonetics and morphophonology of Tamil, but attempting a complete botanical identification of that vocabulary is a difficult task (not attempted here). This article, examining how the individual items inside that vocabulary are dealt with, and how their treatment fits in with the global organization of the TE, aims at providing insights on the nature of those items. They are not basically free forms, but bound forms (or stems), to be concatenated with other elements, in order to obtain the attested linguistic forms, at the end of a derivational process of which the TE is the explicit formulation. This in turns provides an insight into the way the first grammatical description of Tamil was made, probably on the basis of an analysis of existing complex expressions. The language, having thus been analysed and equipped with a grammar, was then on its way to becoming a normalized language, more suitable for literary expression than a language without a grammar. Later grammarians would elaborate on that first step, in a long “domestication” process of language by grammar, the results of which are still visible today, whenever the tamed *centamiḷ* standard is preferred over more spontaneous dialectal usages.

1. Presence of tree-related vocabulary inside the TE

The *Eḷuttatikāram* (henceforth TE), which is the first book of the *Tolkāppiyam*, the most ancient Tamil grammar preserved,¹ contains, among many other things, grammatical information relating to the **stems** of a number of lexical items which are characterizable as nouns which are “tree names”, where “tree” roughly translates the Tamil word *maram*, although a more precise terminology would have to be used if we wanted to handle simultaneously the small botanical section contained in the last section of the third book of the *Tolkāppiyam*: the *marapiyaḷ*.² More specifically,

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¹ For a general presentation of the Tamil grammatical tradition, see Chevillard (1996) and Chevillard (2008).

² In that section of the *Poruḷatikāram* (henceforth TP), which is part of a classification of living beings

among the 483 *sūtra*-s of the TE:

- 5 *sūtra*-s (TE182i,³ TE218i, TE416i, TE417i and TE418i) deal generically with groups of stems characterized by a common phonetic pattern.⁴
- 18 *sūtra*-s contain statements concerning one or several stems which are explicitly mentioned or taken up as a topic from the preceding *sūtra*, and it is these 18 *sūtra*-s which will be the center of our attention here.

Inside those 18 *sūtra*-s, the token/type statistics for those 35 stems is 35/25, which means that there are 25 phonetically distinct stems (see chart 1) and that several of them occur several times, for various reasons. Additionally, two of them, *ñemai* and *namaí*, seem to be doublets referring to the same plant (*Anogeissus latifolia*). A precise identification of all the plants concerned is a challenging task, which has been attempted by several scholars⁵ but even when the precise botanical identity is

according to the number of sense organs, a distinction is made between two types of plants, called *pul* and *maram*, both of them being said to belong to the *ōr-ariviṇa* “(living beings) that have (only) one cognitive faculty” (TP572i), namely “cognition through bodily contact” (*urraṛivatu* [TP571i]). The contrasting characterizations of *pul* and *maram* are found in the *sūtra*-s TP630i (*purakkā laṇavē pulleṇa molīpa* “one calls *pul* those which are hard outside [but soft inside]”) and TP631i (*akakkā laṇavē maramēṇa molīpa* “one calls *maram* those which are hard inside”). However, it does not seem clear that whoever composed the first book of the *Tolkāppiyam* (i.e. the TE) was aware of the distinction made in the third book between *pul* and *maram*. For instance, although *paṇai* is from the point of view of TP a *pul* (see TP630i, commentary), the distinction does not seem to percolate down into the terminology of the TE. This is in fact also true for modern Tamil where the expression *paṇai maram* is licit, as attested by the MTL, where 11 sequences starting with *paṇaimara-* are found, inside the definitions for several entries (MTL p.2570: “*paṇaṅkāṭu*” = “*paṇaimaram aṭarnta tōppu*”), although there is no independent entry for *paṇaimaram*.

³ The vowel *i* indicates that the numbering of the TE *sūtra*-s follows ḷampūraṇar's commentary. The numbering of the *sūtra*-s by Nacciṇārkkīṇiyar, another commentator, partly differs because he takes the two *sūtra*-s TE102i and TE103i to be one *sūtra*, TE102n. From that point onwards, the numbering by the two commentators differs by one unit, until it starts to coincide again from TE442i (alias TE442n) onwards, because *sūtra* TE441i is split into two distinct *sūtra*-s (TE440n and TE441n) by Nacciṇārkkīṇiyar.

⁴ *Sūtra* TE182i deals generically with the stems of tree names ending in “-a” or “-ā”. *Sūtra* TE218i deals generically with the stems of tree names ending in “-a”. The 3 *sūtra*-s TE416i, TE417i and TE418i deal with the class of stems ending in *kurriyalukaram* (“overshort u”).

⁵ See the MTL and see pages 321–322 and 366–406 inside the 2007 book, *Tamiḷarum Tāvaramum*,

in doubt, there seems to be no doubt that these 25 items refer to trees (or to plants). It must also be said that in the case of several items (*āṇ*, *ekiṇ*, *kumiḷ*, *cē*, *pulī*, *mā*) homophones which do not belong to tree vocabulary are discussed by the TE or by its commentators (see chart 2). The list of 25 stems, in alphabetical order and with the identifications proposed by Kuruṣṇamūrtti (2007, pp. 366–406) for 22 of them, is as follows:

	String in TE	Identification in Kuruṣṇamūrtti (2007)	Occurrences in TE
T	<i>arai</i>	[unidentified] ⁶	TE284i, TE305i (M)
T	<i>āṇ</i>	[missing] ⁷	TE305i, TE337i (M)
T	<i>ār</i>	<i>Bauhinia racemosa</i>	TE364i
T	<i>āl</i>	<i>Ficus benghalensis</i>	TE376i
T	<i>āvirai</i>	<i>Cassia auriculata</i>	TE284i
T	<i>illam</i>	<i>Strychnox potatorum</i>	TE314i

by Kuruṣṇamūrtti. I have unfortunately not had the time to make a complete comparison with the Pandanus online data base. Other sources of information which should also be taken into account are traditional lexicons, such as the *Tivākaram*, the *Piṅkalam*, etc. The 4th chapter in the *Tivākaram* (*marapneyart tokuti*), contains 217 *sūtra*-s (numbered from 628 to 844) and more than half of them are enumerations of the various names of several trees. For instance, selecting 2 items from our list (T16 and T19 in chart 1), we can learn from *sūtra* 700 in *Tivākaram* that *paṇai* is also called *peṇṇai*, *tālam*, *pul*, *tāḷi* and *pōṅtai* whereas *sūtra* 664 says that *pulī* is also called *cintam*, *cintūram*, *āmpilam*, *tinturuṇi* and *ekiṇam*, although the fact that this last designation is quite close to the *ekiṇ* which is item T8 in chart 1 is perplexing.

⁶ Kuruṣṇamūrtti (2007) provides no identification (He writes: “? tree”). The MTL (p. 137) says: “prob. *aracu*. A tree, prob. pipal”. T.V. Gopal Iyer (TIPA-1, p. 34) suggests *araca maram*.

⁷ This item appears in TE305i (*āṇmarak kiḷavi yaraimara viyarṛē*), but is not included in the lists compiled by Kuruṣṇamūrtti (2007). The MTL, on the basis of different authorities, assigns three possible values to it (p. 222): 1. Class of trees whose interior is hard, solid, suitable for timber; 2. Marking-nut tree. See *Cē-maram*, 3. Sage-leaved alangium. See *Alīñcil*.

	String in TE	Identification in Kuruṣṇamūrtti (2007)	Occurrences in TE
T	<i>uti</i>	<i>Lannea coromandelica</i> ⁸	TE244i, TE263i (M)
T8	<i>ekin</i>	<i>Spondias pinnata</i>	TE337i
T9	<i>oṭu</i>	<i>Cleistanthus collinus</i>	TE263i, TE279i (M)
T10	<i>kumiḷ</i>	<i>Gmelina arborea</i>	TE387i
T11	<i>cār</i>	<i>Buchanania axillaries</i>	TE364i, TE365i
T12	<i>cē</i>	<i>Alangium salvifolium</i>	TE279i, TE283i (M)
T13	<i>ñemai</i>	<i>Anogeissus latifolia</i>	TE283i
T14	<i>talā</i>	<i>Jasminum</i> sp.	TE230i, (TE231i)
T15	<i>namai</i>	<i>Anogeissus latifolia</i>	TE283i
T16	<i>paṇai</i>	<i>Borassus flabellifer</i>	TE284i, TE285i, (TE286i)
T17	<i>piṭā</i>	<i>Randia malabarica</i>	TE230i, (TE231i)
T18	<i>pīr</i>	<i>Luffa cylindrica</i>	TE364i, TE366i, TE387i (M)
T19	<i>puḷi</i>	<i>Tamarindus indica</i>	TE245i
T20	<i>pūl</i>	<i>Phyllanthus reticulates</i>	TE376i
T21	<i>mā</i>	<i>Mangifera indica</i>	TE232i
T22	<i>yā</i>	<i>Hardwickia binata</i>	TE230i, (TE231i)
T23	<i>vicai</i>	[unidentified] ⁹	TE283i, TE314i (M)
T24	<i>vetir</i>	<i>Bambusa</i> sp.	TE364
T25	<i>vēl</i>	<i>Acacia Arabica</i>	TE376

Chart 1: Botanical identification

⁸ Zvelebil (JTS) gives “Indian ash-tree *Odina wodier*”.

⁹ Kuruṣṇamūrtti (2007) does not provide any identification (He writes: “? tree”). The MTL (p. 3648) does not offer any suggestion and says simply: “7. A tree; *maravakai*.”

	String in TE	Description in TE	Contrasting homophones
T2	<i>āṇ</i>	TE305i	vs. TE304i (<i>āṇum peṇṇum ...</i>)
T8	<i>ekiṇ</i>	TE337	vs. TE338i (<i>ēṇai ekiṇ ...</i>)
T10	<i>kumiḷ</i>	TE387i	See ḷampūraṇar (under TE387i) ¹⁰
T12	<i>cē</i>	TE279i	vs. TE280i (<i>peṇṇam āyiṇ ...</i>)
T19	<i>puḷi</i>	TE245i	vs. TE246i and TE247i (<i>ēṇaip puḷip peyar ...</i>)
T21	<i>mā</i>	TE232i	vs. TE232i ¹¹

Chart 2: Homophonous stems¹²

2. Mode of presentation of the elements

I now turn my attention to the methods used for mentioning the items inside the *sūtra*s of TE. In order to refer to a string X, the simplest protocol is the use of the string itself, and this is done 14 times over a total of 35 individual references, but in the remaining cases, other methods are also seen, in which a semantic and/or a grammatical categorization is made, by making use of terms such as *maram* “tree”, *peyar* “noun” and *kiḷavi* “term”,¹³ combined or not combined with a form of the quotation verb *eṇ*. The various possibilities are enumerated in the following chart:

¹⁰ ḷampūraṇar paraphrases the *sūtra* formulation *kumiḷ eṇ kiḷavi marappeyar āyiṇ* as follows: *kumiḷ eṇṇum col kumiḷttal eṇṇum tolil aṇri marappeyar āyiṇ* “if *kumiḷ* is not [the root of] the verb *kumiḷttal* but is a tree name”.

¹¹ The *sūtra* enumerates *māmarak kiḷaviyum āvum māvum ...*. The first *mā* corresponds to a tree and the second to one (or several) animal species. The sandhi rules given differ. The examples provided by ḷampūraṇar, when the two *mā*-s combine with *kōṭu* (branch or horn) are *māaṅkōṭu* “branch of the mango tree” for the first one and *māṅkōṭu* “horn of an animal” for the second one.

¹² It is possible that other items are specified as being *X marak kiḷavi* because of a possible risk of confusion. This might concern: (a) *oṭumarak kiḷavi* (TE263i) because the stem *oṭu* is potentially homophonous with the *oṭu* case suffix (cf. *oru viṇai oṭuc col* in TC87i); (b) *yā marak kiḷavi* (TE230i), which could potentially be confused with the verbal root *yā* (mentioned in TE147i) or with the interrogative *yā-v-eṇ viṇā* (mentioned several times: TE176i, etc.).

¹³ As I have argued elsewhere (see Chevillard, 2008, p. 466), *kiḷavi* is a general purpose designator for any linguistic element.

Formula	Count	Value of X (plants concerned)	Examples
X	14	<i>arai, āṛ, ekiṇ, cār, ṇemai, taḷā, namai, paṇai (twice), piṭā, pīr, pūl, vetir, vēl.</i>	<i>ārum vetiruṇ cārum pīrum // melleḷuttu mikutaḷ meypeṛat tōṇṇum.</i> (TE364i)
X <i>kiḷavi</i>	1	<i>āvirai</i>	<i>āviraik kiḷavi</i> (TE284i)
X <i>maram</i>	6	<i>arai, āṇ, uti, oṭu, cē, vicai</i>	<i>oṭumarak kiḷavi yutimara viyaṛṛē</i> (TE263i)
X <i>marap peyar</i>	1	<i>illam</i>	<i>illa marap peyar vicai mara viyaṛṛē</i> (TE314i)
X <i>marak kiḷavi</i>	7	<i>āṇ, uti, oṭu, puḷi, mā, yā, vicai</i>	<i>puḷi marak kiḷavikku ammē cāriyai</i> (TE245i)
X <i>eṇ kiḷavi</i>	5	<i>āl, kumiḷ, cār, pīr (twice)</i>	<i>pīr eṇ kiḷavi ammoṭuṇ civaṇum</i> (TE366i)
X <i>eṇ marap peyar</i>	1	<i>cē</i>	<i>cēveṇ marappeyar oṭumara viyaṛṛē</i> (TE279i)

Chart 3: Methods of mentioning

As I shall argue several times here, the 25 strings which instantiate these formulas (and replace X), should be considered as stems¹⁴ rather than as ordinary names (and nouns) used in normal linguistic usage. This means that several of them are not free forms that could be met with inside a text. They are rather the result of an analysis of the Tamil language into its elements, and the purpose of the grammar is to teach how to combine these stems with other linguistic elements in order to form actual utterances.

3. Groupings by *sūtra* chaining and through the use of *gaṇa*-s

I now present the natural subgroups which are found inside the set of 25 stems occurring in the 18 *sūtra*-s under examination. Two different techniques are employed:

¹⁴ Sanskrit grammarians would call them *prātipadika*-s.

- stating collectively the morphophonological properties of a group of items, which we might want to call a *gaṇa*, although the Tamil grammatical tradition never developed a *gaṇapāṭha*, such as is found as an appendix to several grammars of Sanskrit.
- chaining *sūtra*-s. This is accomplished by stating in a *sūtra* that the stem (or group of stems) under consideration has the same morphophonological properties as a stem described earlier.¹⁵ Three such chains are found in the TE (see examples 1a to 1e below and see chart 5).

Concerning the *gaṇa* technique, five such groups are found in the TE. See:

Gaṇa	Gaṇa members	Sūtra concerned
G1	<i>yā, piṭā, taḷā</i>	TE230i, TE231i
G2	<i>vicai, ṅemai, namai</i>	TE283i
G3	<i>paṇai, arai, āvirai</i>	TE284i
G4	<i>ār, vetir, cār, pīr</i>	TE364
G5	<i>pūl, vēl, āl</i>	TE376

Chart 4 (Gaṇa-s)

Concerning the chaining technique, the simplest way to illustrate it is to give an example, such as the chain formed by 5 *sūtra*-s which starts in TE244i, where the morphophonological properties of *uti* are explained, and is continued, by successive jumps, in TE263i, TE279i, TE283i and TE314i, as follows:¹⁶

(1a) *utimarak kiḷavi melleḷuttu mikumē* “The tree-[denoting]-stem *uti* is nasal-augmented” (TE244i)

(1b) *oṭumarak kiḷavi yutimara viyarṛē* “The tree-[denoting]-stem *oṭu* has the nature of the tree-[denoting-stem] *uti*” (TE263i)

(1c) *cēveṇ marappeya roṭumara viyarṛē* “The tree-name called ‘*cē*’ has the nature of the tree *oṭu*” (TE279i)

¹⁵ The occurrences of items used as models are signalled by “(M)” in chart 1.

¹⁶ Here I do not provide a completely explicit gloss, as a traditional commentary would do. These 5 *sūtra*-s are given in metrical form, in order to emphasize that the slightly heterogeneous character of the presentation is due to metrical constraints: Every formulation has to be fitted into lines made of 4 feet (*cīṭ*), each of which is a combination of 2 *aca*-s. The application of sandhi rule makes it sometimes difficult to split the text.

- (1d) *vicaimarak kiḷaviyu ñemaiyu namaiyu // māmup peyaruñ cēmara viyala* “And the tree- [denoting]-stem *vicai*, and *ñemai*, and *namai*, those three names have the nature of the tree *cē*” (TE283i)
- (1e) *illa marappeyar vicaimara viyarre* “The tree-name *illam* has the nature of the tree *vicai*” (TE314i)

As we can see in (1d), the *gaṇa* G2 is part of the chain, but the role of model is fulfilled at the next step (1e) by one of its elements, *vicai*. Two other chains are found in the TE. The following chart contains the data pertaining to these 3 chains/

Chain	Elements
C1	<i>uti</i> (TE244i) ← <i>oṭu</i> (TE263i) ← <i>cē</i> (TE279i) ← G2 <i>vicai</i> (TE283i) ← <i>illam</i> (TE314i)
C2	<i>arai</i> (TE284i/285i) ← <i>āṇ</i> (TE305i) ← <i>ekiṇ</i> (TE337i)
C3	<i>pīr</i> (TE364i/366i) ← <i>kumil</i> (TE387i)

Chart 5 (Chains of *sūtra*-s)

4. Grammatical information provided

I now examine the following question: How can one determine what the TE was suppose to teach regarding those 25 tree-denoting stems to those who learnt it at the time of its composition and during the subsequent centuries? We can of course first of all try to understand on our own what it says but we have to be aware that its *sūtra*-s are often cryptic and that a precise understanding of each of them also depends on our perception of where they stand inside the global structure. For that reason, it seems always useful, in addition to a direct examination of the TE *sūtra*-s, to examine what the commentators tell us about them, keeping in mind the fact that they might be mistaken.¹⁷ I shall start with the 5 *sūtra*-s that I have just enumerated. The illustrations provided by Iḷampūraṇar for the 5 *sūtra*-s are, in a slightly adapted form:

¹⁷ We are of course more likely to be mistaken than them.

(2a) *utiṅkōṭu, utiñcetiḷ, utintōl, utimpū*¹⁸ (TE244i, commentary)

(2b) *oṭuṅkōṭu, oṭuñcetiḷ, oṭuntōl, oṭumpū* (TE263i, commentary)

(2c) *cēṅkōṭu, cēñcetiḷ, cēntōl, cēmpū* (TE279i, commentary)

(2d) *vicaiṅkōṭu, ñemaiṅkōṭu, namaiṅkōṭu; vicaiñcetiḷ, ñemaiñcetiḷ, namaiñcetiḷ, vicaintōl, ñemaintōl, namaintōl; vicaimpū, ñemaimpū, namaimpū* (TE283i, commentary)¹⁹

(2e) *illaṅkōṭu, illañcetiḷ, illantōl, illampū* (TE314i, commentary)

In these examples we recognize as initial component the 4 tree-denoting stems *uti-*, *oṭu-*, *cē-* and *vicai-* and a slightly modified version of the 5th one (*illam*). We also see recurrent elements: *kōṭu* “branch”, *cetiḷ* “outer bark”, *tōl* “skin” and *pū* “flower”. We have to understand that the nasal consonants (*ṅ*, *ñ*, *n* and *m*) which stand between the first and the second component of all these expressions are the *melleḷuttu*-s which are explicitly prescribed in (2a) by TE244i, and indirectly prescribed by the following 4 *sūtra*-s which are chained to it.

5. Order of the elements and organization of the TE

In order to understand, at least partly, how Iḷampūraṅar derives the examples he gives for the *sūtra*-s upon which he comments, we must pay attention to the global organization of the TE. This means for instance taking into account the place of those *sūtra*-s inside the TE and their relationship with other *sūtra*-s, with which they may interact. We have until now presented, for convenience sake, the 25 stems examined in this article in alphabetical order, but this is not the order in which they are found inside the TE. We have, however, on several occasions (for instance while presenting the *gaṇa*-s contained in Chart 4 and the chains contained in Chart 5) hinted at the existence of a “natural/intrinsic” order found in the TE. An exhaustive presentation of the organization of the TE is beyond the scope of this article, but it is however possible to state that, according to Iḷampūraṅar:

- the *sūtra*-s in the TE can be divided into 2 basic categories, called *karuvi* “instrumental, auxiliary” and *ceykai* “action”, the “action” being understood to be the *puṅarcci* “combining/union” of

¹⁸ This is my amplification of the printed text of Iḷampūraṅar's commentary which simply contains, in abbreviated manner: *utiṅkōṭu; cetiḷ; tōl; pū*. The same remark stands for 2b, 2c and 2e.

¹⁹ The printed text only has: *vicaiṅkōṭu, ñemaiṅkōṭu, namaiṅkōṭu, cetiḷ, tōl, pū*.

linguistic elements postulated to be initially stand-alone elements.²⁰ Each of these two categories is further subdivided into 4, the most important one being called *akac ceykai* “internal action”.

- the 18 *sūtra*-s pertaining to our 25 stems are all contained in that section.

A practical consequence is that, whenever Ṣampūraṇar provides us with an example illustrating a *sūtra* from the *akac ceykai* section, it is to be understood that the shape of that example is a consequence not only of the *sūtra* itself but also of a number of auxiliary *sūtra*-s found in the other sections of the book. Stated concisely, the general principles which are pertinent for understanding the examples provided by Ṣampūraṇar are as follows:

- The constantly recurring question examined in the TE is: “what takes place [on the morphophonological plane] when one item **A** is followed in an utterance by an item **B**?”

The answer to that question depends on the nature of the relation between **A** and **B**, which can be a case relation (*vērrumai*) or a non-case relation (*al-vali*) [see TE108i] All the possible finals for **A** are successively examined (see chart 6) and in each case, all the possible initials for **B** are dealt with.

For each configuration, the TE first tries to state a general rule, after which it examines the special subcases and the singular cases (or exceptions)

Illustrating this organization, the following chart sketches the contents of the last three chapters in TE, showing the subdivisions pertaining to the final letter of item A. The sections which contain *sūtra*-s pertaining to our 25 stems of tree names are in boldface.

A ends with a vowel [TE204i to TE296i]	<i>-a</i> (TE204-221i), <i>-ā</i> (TE222-235i), <i>-i</i> (TE236-249i), <i>-ī</i> (TE250-254i), <i>-u</i> (TE255-264i), <i>-ū</i> (TE265-272i), <i>-e/o</i> (TE273-274i), <i>-ē</i> (TE275-280i), <i>-ai</i> (TE281-289i), ...
A ends with a consonant [TE297i to TE406i]	<i>-ñ</i> (TE297-298i), <i>-n</i> (TE299-302i), <i>-ṅ</i> (TE303-310i), <i>-m</i> (TE311-332i), <i>-ṇ</i> (TE333-357), <i>-y</i> (TE358-362i), <i>-r</i> (TE363-366i), <i>-l</i> (TE367-378i), <i>-v</i> (TE379-383i), <i>-ḷ</i> (TE384-396i), <i>-ḷ</i> (TE397-405i).

²⁰ See the initial part of Ṣampūraṇar's commentary on TE1i. Such a conception is in agreement with the perspective of *Prātiśākhya* authors, who explain how to derive the text of continuous recitation (*saṃhita pāṭha*) of the veda-s from the *pada-pāṭha* (word-by-word text). See also Thieme (1995).

A ends with over-short *u* (*kurriyal ukaram*)

[TE407i to TE480i]

Chart 6 (Logical sections inside the TE)

6. Examining one example: the i-ending section

In order to be more specific in my explanations regarding how the 25 tree stems fit into the general economy of the TE, I shall now briefly present extracts from the section that goes from TE236i to TE249i, in which the behaviour of i-ending items is examined. That section, like the other sections, starts with some inaugural general statement, which is then followed by the examination of special cases. More specifically,

- TE236i presents a (relatively) general case²¹
- TE237i to TE243i deal with several special cases
- TE244i deals with *uti* [“Lansea Coromandelica”]
- TE245i deals with *puji* [“Tamarindus Indica”]
- TE246i deals with *puji* [sourness]
- TE247i presents an alternative to TE246i

Etc.

If we follow the interpretation given by Ṣampūraṇar, we shall admit that these *sūtra*-s teach us that, when a word A ends in *-i* and is followed by a word B starting with [a plosive which is] *k, c, t* or *p*:²²

- The general case (TE236i) is to double the plosive, as in *kīlik kāl* (parrot leg), which is the combination of *kīli* (parrot) and *kāl* (leg).

²¹ That “general case” is not a completely general case because other aspects of the sandhi of words ending in *-i* have already been dealt with in the *tokai marapu* (5th section of the TE) in general-purpose *sūtra*-s and in specific purpose *sūtra*-s (such as TE155i, TE159i, etc.).

²² I restrict the examples to this situation, for the sake of simplicity, although Ṣampūraṇar draws many further conclusions.

The item *uti* (TE244i) behaves differently and inserts a homorganic nasal, as seen in (2a), where we presented the example *utiṅkōṭu* (branch of *Lannea Coromandelica* tree), which is the combination of *uti* with *kōṭu* (branch).

The item *puḷi* (TE245i) behaves in a yet different manner because when *puḷi* combines with *kōṭu* (branch), we obtain *puḷiyaṅkōṭu* (branch of Tamarind tree), where the *ammuc cāriyai*, i.e., the element *am* which falls under the general category of *cāriyai*,²³ has been inserted between the two components.

BUT, if *puḷi* means “sourness” (TE246i) and does not refer to a tree, we obtain a homorganic nasal in sandhi, as in *puḷiṅkūḷ* (sour porridge).

HOWEVER, according to TE247i, an alternative possibility is to have a doubling of the plosive, as seen in the variant form *puḷikkūḷ* (sour porridge) [which is in fact a return to the general case seen in TE236i].

7. The various groups of tree-denoting stems

The detailed examination of the *-i* ending section has shown us that some stems of nouns which are tree names do not behave like those of other nouns, and that they fall under different groups, from the point of view of morphophonology. An examination of other sections would confirm that impression. Among the 25 stems studied by us in this section, we find the following forms of behaviour, when they combine as first element (A) with a second item (B) that starts with a plosive (*k*, *c*, *t* or *p*):

- Group A: insertion of the *cāriyai* “*am*”
- Group B: insertion of a homorganic nasal
- Group B*: insertion of a homorganic nasal except when the second item is *kāḷ*, in which case there is doubling of the plosive
- Group AB: free choices between the *cāriyai* “*am*” and the homorganic nasal

²³ The *sūtra* TE113 introduces in a general way the context in which *cāriyai*-s are used and the *sūtra* TE120i enumerates 9 specific *cāriyai*-s. K. Zvelebil translates *cāriyai* by “empty-morph”.

- Group C: loss of final *ai* and insertion of *am*
- Group D: insertion of *a* and choice between inserting a nasal and a plosive
- Group D*: see chart7

A	<i>arai, āṇ, āl, ekiṇ, puli, pūl, vēl</i>	<i>araiyaṅkōṭu, āṇaṅkōṭu, ālaṅkōṭu, ekiṇaṅkōṭu, puliyaṅkōṭu, pūlaṅkōṭu, vēlaṅkōṭu</i>
B	<i>ār, illam, uti, oṭu, cē, ṇemai, namai, vicai, vetir.</i>	<i>āṅkōṭu, illaṅkōṭu, utiṅkōṭu, oṭuṅkōṭu, cēṅkōṭu, ṇemaiṅkōṭu, namaṅkōṭu, vicaiṅkōṭu, vetirṅkōṭu.</i>
B*	<i>cār</i>	<i>cāṅkōṭu</i> BUT <i>cārkkāl</i>
AB	<i>pīr, kumiḷ</i>	<i>pīṅkōṭu</i> OR <i>pīraṅkōṭu, kumiḷṅkōṭu</i> OR <i>kumiḷaṅkōṭu</i>
C	<i>paṇai, āvirai</i>	<i>paṇaṅkāy, āviraṅkōṭu</i>
D	<i>yā, piṭā, taḷā</i>	<i>yāaṅkōṭu, piṭāaṅkōṭu, taḷāaṅkōṭu</i> OR <i>yāakkōṭu, piṭāakkōṭu, taḷāakkōṭu</i> ²⁴
D*	<i>mā</i>	<i>māaṅkōṭu</i> OR <i>māṅkōṭu</i>

Chart 7: types of tree stems²⁵

8. Posterity of the grammatical characterizations found in TE

I have presented the information provided by the *Tolkāppiyam* in the light of the interpretation provided by the most ancient commentary available, attributed to ḷampūraṇar. This commentary is followed in time by another one, attributed to Nacciṅārkkīṇiyar, which contains additional information on the situation of the Tamil language, as it was slowly changing. It is not possible here for me to provide a detailed analysis of all the additional facts mentioned by these two commentators but a few remarks will indicate the trends. A much more complete picture can be obtained by examining the corresponding entries in volumes 1 & 2 of the TIPA (*Tamiḷ*

²⁴ ḷampūraṇar adds to the teachings of the TE that we can also have *yāaviṅkōṭu, piṭāaviṅkōṭu, taḷāaviṅkōṭu*, and even, in some cases, *yāattukkōṭu*.

²⁵ Other information concerning the types of tree stems can be found in the TIPA, vol.2, p. 166, under the entry *marappeyarp puṇarcci aivakai*.

Ilakkaṇap Pēr Akarāṭi), prepared by T.V. Gopal Iyer. See references in chart 8.

- Several items seem to move from group B to group AB. For instance, Nacciṇārkkīṇiyar indicates that *utiyaṅkōṭu* is acceptable alongside *utir̥kōṭu*.

A new *cāriyai*, “*ām*”, is seen in several forms such as *pūlāṅkōṭu*, which alternates with *pūlaṅkōṭu* (see AĀ in chart 8).²⁶

	String in TE	TIPA	Group	New feature
T1	<i>arai</i>	I-34	A	<i>(araicu/aracu)</i>
T2	<i>āṇ</i>	I-55	A-->AĀ	“ <i>ām</i> ”: <i>āṇāṅkōṭu</i>
T3	<i>ār</i>	I-63	B-->AB	“ <i>am</i> ”: <i>āraṅkaṇṇi</i>
T4	<i>āl</i>	I-63	A	
T5	<i>āvirai</i>	I-63	C	
T6	<i>illam</i>	I-90-91	B	“ <i>attu</i> ” ²⁷
T7	<i>uti</i>	I-124/125	B-->AB	<i>utiyaṅkōṭu</i> (TIPA)
T8	<i>ekiṇ</i>	I-166	A	<i>(ekiṇam)</i>
T9	<i>oṭu</i>	I-237	B-->AB	<i>oṭuvaṅkōṭu</i>
T10	<i>kumiḷ</i>	I-263	AB	
T11	<i>cār</i>	I-289	B*	
T12	<i>cē</i>	II-31	B	
T13	<i>ñemai</i>	II-37	B	
T14	<i>talā</i>	II-50	D	
T15	<i>namai</i>	[missing]	B	
T16	<i>paṇai</i>	II-124, II-125/126	C	
T17	<i>piṭā</i>	II-127	D	

²⁶ The new *cāriyai* “*ām*” is also seen in the form *āṇāṅkōṭu* which appears in the commentaries by ḷampūraṇar and Nacciṇārkkīṇiyar to TE232i/TE231n, along with the forms *kāyāṅkōṭu* and *nuṇāṅkōṭu*.

²⁷ T.V. Gopal Iyer provides an example from *Kalittokai* 142.

T18	<i>pīr</i>	I-63, II-131	AB	"attu" (<i>pīrattalar</i>)
T19	<i>puḷi</i>	II-144	A	
T20	<i>pūl</i>	II-147	A-->AĀ	"ām": <i>pūlāṅkōḷu</i>
T21	<i>mā</i>	I-169/170	D*	
T22	<i>yā</i>	II-223/224	D	
T23	<i>vīcai</i>	II-247	B	
T24	<i>vetir</i>	II-262/263	B	"attu" (TIPA)
T25	<i>vēl</i>	II-266	A	

Chart 8: type changes and TIPA information

9. The continued relevance of morphophonological characterizations

By way of concluding this exploration of a fragment of ancient Tamil noun morphology, a quick glance into the situation of Contemporary Standard Tamil (CST), as illustrated by the already huge corpus of online Tamil texts and by the standard dictionaries of Tamil appears useful. A sketch of the situation in the various Tamil dialects would also be useful but it is of course much more difficult to achieve. If we restrict ourselves to those texts which purport to be composed in CST, a striking fact is that these contain a great number of "words" which are not found as entries in dictionaries although some of their constituents are present, probably because native Tamil speakers instinctively consider these "words" to be analysable (noun-)phrases and take for granted the morphological mechanisms through which they are derived. For instance, if we consider the fruit of the Tamarind tree (*Tamarindus Indica*), the "word (or "phrase") which is used to refer to it is *puḷiyampaḷam*, but that item does not receive a separate dictionary entry either in the Madras Tamil Lexicon or in the Cre-A dictionary, although it is used in the definition of another item.²⁸ The entry semantically closest to *puḷiyampaḷam* is *puḷiyamaram* "Tamarind tree", but since

²⁸ The definition of the entry *Puḷi*² "Tamarind" (a black substance used for cooking) in the Cre-A dictionary is "*puḷiyampaḷattin oṭṭai nīkkip perappaṭum puḷippuc cuvaiyuṭaiya cataip pakuti*", where we see the genitive of *puḷiyampaḷam*.

neither of these two can be derived from the other, we have to postulate that both of them contain a stem *puḷi-*, i.e. a bound form which combines with the items *paḷam* “ripe fruit” and *maram* “tree”, and which is very similar to the abstract entity which the TE designated as *puḷimarakkilavi* (see Chart 3, row 5). That stem is also found in a great number of other phrases, such as:

- (3) *puḷiyaṅkaṅru*, *puḷiyaṅkā*, *puḷiyaṅkāy*, *puḷiyaṅkuṭi*, *puḷiyaṅkuḷam*, *puḷiyaṅkuṛicci*, *puḷiyaṅkoṭṭai*, *puḷiyaṅkoḷuntu*, *puḷiyaṅcālai*, *puḷiyantaḷai*, *puḷiyantīvu*, *puḷiyantōppu*, *puḷiyamvitai*, etc.

The case of *puḷi-*, where it seems almost natural to use the TE, its *ammuc cāriyai* (TE245i) and the stem T19 of chart 1 in order to analyse contemporary Tamil usage, is an illustration of the stability of the Tamil language across the centuries.

Other stems would illustrate change. Such is for instance the case with T7 (*uti-*) in chart 1. We have already explained, while commenting on Chart 8, that the commentators noted that the form *utīṅkōṭu* was being replaced by a new form *utiyāṅkōṭu*. We do find in Contemporary Standard Tamil (CST) that the stem, after undergoing a change of morphological class, has also undergone further changes, because we now find in CST forms such as *otiyāṅcālai*, *otiyamaram*, etc.²⁹

As a conclusion, I would like to point out that the use of the *ammuc cāriyai*, which has been persistent with an item such as *puḷi-* (and with other items belonging to group A) since the time of the TE and which we have seen being extended to items such as *uti-* (later *oti-*) through the power of linguistic analogy, is not restricted to tree-denoting stems but is also seen in items such as *āru* “river” and *kiṅaru* “well”.³⁰ In the case of Classical Tamil literature, it is probable that the (too) frequently

²⁹ Those changes were already an established fact at the time when the *Tirumummaṅikkōvai* (included now in the 11th *Tirumurai*) was composed by Āḷṭaiyaṅṅaiyār. There, in stanza 6, we find the statement *otiyampanai pōl viluvar antō* “They [who do not bow their heads to Campantar] will fall (useless), alas! like the branches of the Lannea Coromandelica”. It is interesting to note that the uselessness of that tree seems to have remained proverbial, as seen in the proverb: “oti peruttu tūṅ ākumō” (found in Mousset and Dupuis' Tamil-French dictionary, and as seen in the title of a short story (“otiyam peruttā uttirattukku ākumā?”), which I chanced to find on the internet (<http://www.thiruvilaiyattam.com/2008/12/blog-post_08.html>).

³⁰ See phrases such as *āraṅkarai* “river bank” and *kiṅaraṅkarai* “side of the well”.

found interpretation of “am” as meaning “beautiful” is not always justified and that, in a number of cases, it would be a fairer tribute to the architecture and the sober beauty of that language to suppress the superfluous word “beautiful”.

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