

# Hierarchical Grammatical Tagging for Tīnai (Landscape) of Cankam Tamil Literature

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## Abstract

Tīnai poetics from the ancient Tamil literature has significantly contributed to the environmental literary theory. The ancient Cankam poets belong to pre-Christian era, known as Cankam poets, because of their involvement with Tamil literary academies. They had remarkable success in cultivating their creative minds with the rudiments of landscape, which they belonged to. These enshrined landscapes are known as Tīnai. The integration of Tīnai into the poems requires the poetics to pull their creative energy from the space that nature had allocated for everyone. They believed that poetry is way of communication and the images and metaphors in their poems develop from the natural subjects that may be deliberated as artistic objects. These natural objects consist of Mutalporu!, Uripporu!, and Karupporu! which determine the type of the tīnai. This paper deals and suggests how to tag the Tamil Kuriñci tīnai system in Tag set structure.

**Keywords:** Cankam Age, Karupporu! and Uripporu!, Mutalporu!, Tamil, Tīnai,

## 1. Introduction

The Cankam\Tīnai poetics of ancient Tamil literary tradition is structurally meaningful. The organic elements of the poems are comprehensible. The organic elements can be divided into Mutalporu!, Karupporu! and Uripporu!. The third verse of Akathinai Iyal in Tolkāppiyam, suggests, "Considering the literary usage of, Mutalporu!, Karupporu! and Uripporu! are the three important constituents by which the tīnai of a poem is determined"<sup>1</sup>. Mutalporu! signifies the landscape, the time and seasons i.e., (po!uthu) appropriate to the landscape. Karupporu! refers to the deity, people, flora, fauna, topography, musical instruments, and occupation connected to a specific landscape. Uripporu! concerned to the 'o!ukkam' i.e., (behaviour or emotions) attributed to a landscape<sup>2</sup>.

There are five types of tīnai namely Marutam, Kuriñci, Mullai, Neytal and Palai<sup>3</sup>. Kuriñci pertain the unification of lovers. The beloved unwearingly waiting for her lover is visualized against the backdrop of mullai. The emotion related with neithal is sadness and misery caused by a brief separation of the lovers. Lovers' quarrels are witnessed in marutham while pālai indicate the agony of

long separation or the beloved anxiously waiting for her lover who has set out on a dangerous journey<sup>2</sup>.

Sometimes the 'Mutalporu!', 'Karupporu!' and 'Uripporu!' pertaining to a specific landscape or 'Tīnai' may occur in a verse belonging to another 'Tīnai'. This ambiguity or overlapping is called 'Tīnaimayakkam'<sup>2</sup>. For eg., in verse 308, which belongs to pālai Tīnai, there is a reference to Lord Muruga who is the deity of Kuriñci Tīnai and hence the karupporu! of that Tīnai. Content of the poem dealt with Uripporu!, Karupporu!, and Mutalporu!. To avoid such confusions this research is ought to look for a solution. By this Tagging Application we can identify the Tīnai precisely from the given poem.

## 2. Tag set structure

A tag set describes instructions for constructing a markup language from data set. The resulting output contains embedded instructions defining layout and some content<sup>4</sup>. Flat tag sets note down the elements appropriate for a language regardless of any condition for modularity or feature reusability. Hierarchical tag sets are ordered connectively to one another<sup>5</sup>. This arrangement offers a definite means for generating a common tag set outline

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for many languages. Decomposability in a tag set allows distinct characteristics to be programmed according to the distinct sub-stings. A better corpus analysis is made possible by decomposable tags. The tags enables search to be made with an underspecified search string<sup>6</sup>. In present framework, hierarchical layout and decomposable is adapted for designing the tag set.

## 2.1 What to Encode?

In Tīnai tagging only the aspects of morph syntax for annotation will be considered. The article discusses only on the morph syntactic elements of Tamil language for encoding in the framework.

### 2.1.2 Morphology and Granularity

Morphological analysis is required for the Tīnai tagging. It involves preliminary processing to get better results in automatic tagging. The morph syntactic elements in the framework are encoded. Leech (1997) noted that, computationally some of the distinct linguistic patterns are not practicable<sup>6</sup>. Therefore, such features are ignored at Tīnai tagging level.

### 2.1.3 Multi-words

Constituents of Multi-Word Expressions (MWEs) like Cankam tamiḷ ilakkiyam are denoted as individual words and tagged separately. Single tag is avoided as the earlier tag sets followed the standard practice. Besides that, assembling MWEs into a single unit should preferably be handled in chunking.

Tamil Classical Literature glossaries from the Tamil virtual university website were used as references for the tagging purpose<sup>7</sup>.

## 2.2 The Relationship between Tīnai and Landscape

The following table shows the characteristics of each Tīnai.

Although each Tīnai have a well-built connection with ecological landscape, it was the behavior described by the poem that reflects the Tīnai<sup>8</sup>. The description affirmed the appropriate geographical region. Nakkiranār delivers an analogy as follow in his annotations on the iraiyanār Akapporuḷ. In Tamiḷ, the word “a light”, not only refers the flame that gives light, but also as the illuminating object

Table 1. Poetic characteristics of the landscapes

Landscape	kuṛiñci	Mullai	Marutam	Neytal	Pālai
Uriporul and Karuporul					
Mood	Lovers uniting	Heroine patiently waiting over separation	Lovers quarreling / wife's petulance (husband accused of visiting a prostitute)	Heroine expressing grief over separation	Run away secretly, Longest separation, treacherous journey by the hero
Flower	kuṛiñci	Mullai	Marutam	Water lily	Pālai
Landscape	Mountains	Forest, pasture	Agricultural areas, plain or valley	Seashore	Parched wasteland, Desert
Time	Midnight	Evening	Shortly before sunrise	Sunset	Noon
Season/Climate	Winter/cool and moist	Late Summer/Cloudy	No Specific Season	No Specific Season	Summer
Animal	Peacock, Monkey, Elephant, horse, bull	Deer	Water Buffalo, Freshwater fish	Crocodile, Shark	Fatigued elephant, tiger, or wolf
Crop/Plant	Jackfruit bamboo, venkai	Konṛai	Mango	Punnai	Cactus
Water	Waterfall	Rivers	Pond	Well, sea	Dry wells, stagnant water
Soil	Red and black soils with stones and pebbles	Red soil	Alluvial	Sandy, saline soil	Salt affected soil
Occupation	Hill tribes, collecting honey	cultivator	Pastoral and farming occupations	Selling fish, salt, fisher folk	Travelers, bandits
God	cēyōn or Murugan	māyōn or māl	vēntan	kaṭalōn	Koṇṛavai

being set to fire by the flame. However, the analogue does not alter the fact of the light being the flame, and not the object that produces it<sup>9</sup>. Correspondingly, although the *Tiṇai* associated with the lovers union is named the *kuriñci* “mountain country, the *Tiṇai* is like the object that is emitting light. The *Tiṇai* itself is the subject of the poem, namely, the amalgamation of the lovers<sup>10</sup>.

### 2.3.1 The Geographical *Tiṇai*: Frame Work

The five geographical *Tiṇais* have flowers as their name. Each of these flowers attributes to the feature of the particular landscape accordingly. However, when translated in English it is necessary to utilize the name of the landscape rather than that of the flower. It is because, English language exhibits less cultural relationship with flowers compared to Tamil language. Tamil language interconnected more with the cultural quality of the flower. For the purpose of this article only *Kuriñci tiṇai* will be discussed.

- *Kuriñci*– Mountainous Region

The mountain becomes the backdrop for the lover’s union at midnight. The mountainous region is prosperous with lakes, waterfalls, teak, bamboo and sandalwood. Kulendran 2012 describes the setting as, “love in this setting is shown by Murugan, and one of his wives, Valli, the daughter of a mountain dweller. He puts in the radiant red kantal flower and rides a peacock, the bird of the mountains”<sup>11</sup>. The name of the region, *Kuriñci*, is also the name of the famous *Kuriñci* flower (*Strobilanthes kunthiana*). This flower grows in the hills<sup>12</sup>. It blossom for only a few days once every twelve years. Beneath the sun, the flower covers the slopes in radiant whiteness<sup>10</sup>. Such scenery celebrates the passion of a love uniting with nature. It is displayed when the lovers passionately hold each other tightly amidst the menace of the mountain trail.

The following passage shows the example of tagging for *Kuriñci Tiṇai*.

கொற்றிஞ்சி – தலைவன் கொற்றை  
கொங்குதேர் வாழ்க்கை  
அஞ்சிறைத் தம்பிகாமம்  
செப்பாது கண்டது  
மொழிமேர பயிலியது  
கொழிய நட்பின் மயிலியல்  
செறியெயிறற்றிவை  
கொந்தலின் நறியவம்  
உளவோ நீறியும் புவே. –  
இறையனார் [13].

#### *Kuriñci*-Lover’s expression

Figure 1. Tagset framework - partial representation.

Beautiful-winged bee whose life is passed in search of honey doesn’t speak to me of desire but tell me what you really saw: Could even the flowers that you know be as full of fragrance as the hair of the woman with the even set of teeth and the peacock nature, to who long affection binds me? - *Irayanar*<sup>8</sup>

For instance, the hyponym ‘peacock’ being the *karupporul* denotes the landscape-*Kuriñci*. It reflects the characteristic of the landscape. When it is designed as the tag structure it will be saved in the data base as the conduct for the *Kuriñci*. Thus, whenever a song that has the word ‘peacocok’ is analysed in the data base it will direct to the *Kuriñci Tiṇai* the song belongs to. The same goes to other songs in general.

Marutha }  
Kuriñci }  
Mullai } Karupporul } Animal  
Neytal }  
Paalai }

### 3. Conclusion

This paper serves as an ideological framework. It can be used in the computer world to set up a data base and facilitate the process of identifying the tinai concepts in a literature work.

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