



## AN ANALYSIS OF ASSOCIATIVE MEANINGS IN TWO SONG'S ALBUMS OF LORDE

Masriyah<sup>1</sup>  
Zulfadli A. Aziz  
Iskandar Abdul Samad

*Universitas Syiah Kuala, Banda Aceh, Indonesia*

### ABSTRACT

This research is analyzing associative meanings in the lyric of Lorde's selected songs. The aim of this study was to find out the types and the functions of associative meanings in the lyric of Lorde's selected songs. This research used descriptive qualitative approach and a major theory of associative meaning from Leech's (1985) theory. In this research, the researchers gathered the data by collecting, marking and describing words, phrases and sentences in the song's lyric from two albums that contained associative meaning such as connotative meaning, social meaning, affective meaning, reflected meaning, and collocative meaning. Then, the researchers analyzed the data by classifying words, phrases, and sentences that contained types and functions of associative meanings which referred to Leech's (1985) theory. Moreover, the researchers explained the finding, and finally formulated research conclusion based on the findings and analysis. The result of this research showed that there were sixty-nine data of associative meaning as well as their functions in ten songs' lyric of Lorde. There were seven data of connotative meaning, thirty-five data of social meanings, eleven data of affective meaning, eleven data of reflected meaning, and five data of collocative meanings. The most dominant meaning used in the lyric of Lorde's songs was social meaning in which the lyrics used informal language such as idioms, slangs and colloquial.

**Keywords:** *associative meaning, types of meaning, types of associative meaning.*

---

<sup>1</sup> Corresponding author: [Dea.masriyah@gmail.com](mailto:Dea.masriyah@gmail.com)

## **INTRODUCTION**

Nowadays, semantics has been used by people to interpret the meaning of words, phrases, and sentences so that people will be able to understand the sentences more easily and better in diagnosing the language. Furthermore, semantics leads people to understand more about language because it is the study of meaning that is used for understanding human expressions through language. Semantics has many aspects of meaning, and one of them is associative meaning which concerns expression related to the individual's mental understandings of the speaker. Leech (1985) argued that associative meaning has variants and unstable meanings of individual experiences. Leech (1985) mentioned that meaning can be divided into seven types, namely: conceptual meaning, connotative meaning, social meaning, affective meaning, reflected meaning, collocative meaning, and thematic meaning.

Essentially, people mostly listen to music as a way to bring them in relaxation, refreshing and entertaining. Haupt (2016) stated that music is media that can inspire, give hope, create a dream, or let people escape for a moment. Wahyu (2017) argued that song is a single piece of music intended to be sung by human voices in a variety of different tones and patterns and using sound and silence in various forms which often include part of the repetition. The words that are written in a song are called lyrics consisting of verses and chorus.

Normally, people reading the text structure from a poem, prose, and novel will find the difficulty in following the writers' mind and often get misunderstanding from the real content of the sentence. Moreover, this happens in a song when writers create a song's lyric. Under this circumstance, they will prefer to use the words that contain several meanings. Furthermore, in the song '*magnets*' by Lorde, most of the lyrics contain associative meaning that mentions "face from heaven" which refers to a woman that is too innocent to be interesting, but in the actual meaning it is described as the face that comes from heaven. Another example that is found in the song is "pretty girls do not know the things that I know". In writer's understanding, the girl who focuses on her appearances and lives superficial or "innocent" lives have never dug deep enough to understand life in the way the writer does. However, in the actual meaning, it suggests that "the beautiful woman thoughtless" (Stumme, 2015).

Therefore, the wrong messages which listeners get from the song cause to increase the confusion among them in determining the actual meaning of the sentence due to the exceeded literal meaning that the writer intends to convey in the songs. Lorde's songs were chosen for this research because she often used unique words in her song lyrics that had ambiguous meanings due to the fact that the song used informal language such as idioms, colloquial and slangs. Thus, she made listeners often get confused with the real meaning of the song.

Thereby, the ultimate objectives of this study were to find out the types of associative meanings used in these song lyrics and to find out the functions of the song lyrics. The researchers chose the topic because it was interesting to be analysed and to figure out the meanings in the lyrics of Lorde's song by using Geoffrey Leech's theory (1985).

## **LITERATURE REVIEW**

### **Semantics**

Semantics as a branch of linguistics usually deals with how the meaning is conveyed in language which consists of different unit structures such as sentences, phrases, words, morphemes, etc. According to Charles (1998), semantics is the study of how languages organize and express meaning. Semantics is the study of the meaning of words and sentences in linguistic units. Semantics is also the core study of the human mind-thought process, cognition, and conceptualization. Moreover, McGregor (2009) stated that semantics deals with the meaning aspects that are encoded by words and grammar. Then, Fromkin, Rodman and Hyams (2003) proposed that studying the meaning of morphemes, words, phrases, and sentences is called semantics. Furthermore, Bagha (2011) stated that semantics is the study of meaning that people use to understand human expressions through language. It leads to a new direction on how human experience the world and how they understand each other. Furthermore, one of the biggest issues in semantics is the differentiation between literal meaning and figurative meaning. In literal meaning, we take concepts at face value; where, in figurative meaning, we utilize similes and metaphors to represent meaning and convey greater emotion. Therefore, semantics is the study of meaning. Leech (1985) mentioned that there are two types of meaning: conceptual meaning and associative meaning. Nordquist (2017) mentioned that the conceptual meaning of the word *needle*, for example, in dictionary meaning

includes thin, sharp, steel instrument. This meaning is true for everyone. The associative meaning might be pain, illness, blood, knitting, thread, etc. These associations vary from person to person. The conceptual meaning of *concise* is expressed in a few words, but *concise* being a good thing is part of the associative meaning.

## **Meaning**

Meaning is the message conveyed by words, sentences, and symbols in a context. Many linguists claim that it is challenging to figure out the true meaning of word. Subsequently, McGregor (2009) proposed meaning in any content of communication used by a speaker through a language that an interlocutor processes the message that the speaker wants to convey. Furthermore, Kreidler (1998) mentioned there are different meanings in different situations so that different pieces of language can have different meanings in different contexts. Hence, to know the meaning of a sentence and its semantic relations to other expressions, one must know not only the meaning of its lexical elements but also how they inter-relate.

According to Leech (1985) meaning is divided into seven types; they are conceptual meaning, connotative meaning, affective meaning, social meaning, reflected meaning, collocative meaning and thematic meaning. All of the meanings can be sub-categorized into two large types, namely associative meaning and conceptual meaning. There are five meanings included in associative meaning, that is, connotative meaning, affective meaning, social meaning, reflected meaning, and collocative meaning.

Meanwhile, conceptual and thematic meaning are different from the associative meaning. Conceptual meaning is called *denotative* or *cognitive* meaning. It refers to logical, cognitive or denotative content. Whereas, for the thematic meaning, Leech (1985) stated that the meaning is communicating in a way a speaker or writer constructs the message in terms of ordering, focus and emphasis. Thus active is different from passive although its conceptual meaning is the same.

Additionally, Leech (1985) stated associative meaning is unstable meaning and it has variants of individual experiences. Jones (2003) suggested that associative meaning is a study about the association words, and internalization of words and phrases by readers or listeners. Conceptual meaning is different from associative meaning. Yule (2010) proposed that associative meaning is different from conceptual

meaning. Associative meaning is the word meaning that is related to other words. Conceptual meaning is the lexical or literal meaning.

### **Types of Associative Meaning**

Leech (1985) proposed that associative meaning is impermanent meaning and has variants of individual experiences. He distributed the meaning into five types, comprising connotative meaning, social meaning, affective meaning, reflected meaning, and collocative meaning.

### **Connotative Meaning**

Finch (2003) stated that connotation is kinds of value and attitudes invoked by a word apart from its core meaning, and it is more open-ended than conceptual meaning. Whereas, Leech (1985) proposed that connotative meaning refers to communicative value of an expression based on what it refers to, above and beyond its purely conceptual content. For example, the word *Woman* has such connotative meanings as *babbling, capable of speech, experienced in cookery, frail, prone to tears, skirt or dress wearing*. Moreover, the word *Internet café* connotes the meanings of *uncleanliness, unpleasant affairs*. Meanwhile the word *Father* decodes the meaning of *strength, strong-willed, tolerance*. Additionally, connotative meaning is something more than the dictionary meaning which embraces putative properties of reference due to the viewpoint of personal, social, or communities. This meaning is relatively unstable from age, society, and personal experience. The function of this meaning is used to deliver the experience in the real world to associate with the expression when someone heard or used it.

### **Social Meaning**

Social meaning is language used by people in communication connected to the social circumstances of the speaker's culture. This is due to the fact that dialects appear from varied background's life. The dissimilar of tone, style or choice of words will be affected in their speaking. According to Finch (2003), social meaning is being able to use the language effectively and the ability to switch between these levels of formality when it is socially appropriate to do so. Leech (1985) said that social meaning refers to distinguishing between dimension and level of style within the same language. This meaning includes several aspects of language variation such as social or regional dialect variation, style variation like formal, informal colloquial and

slang. For example, the word *domicile* is used in a very formal, official situation. Moreover, the word *residence* is used in a formal context. The word *abode*, however, is used in a poetic way. Furthermore, the word *home* is used for a general meaning. In terms of conceptual meaning, those sentences are synonymous expressions. The function of this meaning is used to deliver the stylistic meaning which appears in language.

### **Affective Meaning**

This meaning is used to express personal feelings or attitudes to listeners. Mwihi (2004) said that affective meaning is more directly as a reflection of the speaker's personal attitude or feeling towards a listener or the target of the utterances. In addition, the tone of voices is very important to show the emotions because a listener will understand when we are angry, sad, bad, or happy through the intonation of a speaker (Leech 1985). For example, statements are measured according to politeness with the object of getting people to be quiet such as *I'm terribly sorry to interrupt, but I wonder if you would be so kind as to lower your voices a little*. The utterance is supposed to be polite impression. However, it would be sarcasm if the intonation used is stressed. Nevertheless, it will turn into a playful remark between intimates if delivered with the intonation of a mild request or it would be a casual tone to express friendliness. The function of this meaning is to express the emotion, feeling and attitude to a listener.

### **Reflected Meaning**

Leech (1985) stated that reflected meaning is arising of meaning in cases of one sense or multiple conceptual meanings that respond to another sense of the word. Nordquist (2017) defined that reflected meaning is a phenomenon in which a word or phrase is associated with more than one sense or meaning. It is also known as dye and transmission. Moreover, Finch (2003) pointed out that this meaning of a word can have more than one conceptual sense. This meaning is also established in taboo words. For instance, in a poetry of Daffodils by William Wordsworth *The could not but be a gay in such jocund company*. In the time of William Wordsworth the word *gay* was frequently used, but now the word is used for homosexuality. The function of this meaning is used to deliver the new sense of a word that relates to another phenomenon in the same expression.

**Collocative Meaning**

Mwihaki (2004) argued that collocative meaning as a unity of expression describes the unity of the wholes of expressions. Consequently, Finch (2003) pointed out that collocative comes from the verb “collocate” which means “to go with” and it is one of the ways to know the meaning of a word (Leech 1985). For example, the words *Pretty* and *handsome* share common ground in the meaning *good looking*, but may be distinguished by the range of nouns which they are likely to co-occur or collocate. For instance, *pretty* can be employed with the words such as *girl, boy, woman, flower, color*, meanwhile, the word *handsome* occurs with the words such as *boy, man, car, vessel, overcoat, and typewriters*. Another example is word *port* which can co-occur or collocate with the word *airport* which has meaning as a place for taking off, landing, loading, feeling and repairing plane. The function of this meaning is used to convey the associate of words which tend to occur in the environment.

The classification of associative meaning based on Leech’s theory (1985) which consists of five meanings can be summarized in Table 1 below:

**Table 1. Associative Meaning by Leech (1985)**

Associative Meaning	Connotative Meaning	What is communicated by virtue of what language use.
	Stylistic Meaning	What is communicated of the social circumstances of language use.
	Affective Meaning	What is communicated of feelings and attitudes by the speaker or writer.
	Reflective Meaning	What is communicated through association with another sense of the same expression.
	Collocative Meaning	What is communicated through association with words which tend to occur in the

**Song’s Lyrics**

A song is a part of the music. A song is generally called as lyrics when it is on a paper and becomes music when sung by a personal. According to Wahyu (2017), song in social function can entertain

listeners; lyrics can teach moral value, manage the relationship in public and private emotional life and express the feeling, cultural values and emotional life in society. In general structure, a song consists of intro, verse, a chorus or refrain, break, bridge, outro, and coda. Moreover, lyrics are a group of words which are composed for singing. They express something that has been seen, heard or experienced. The songwriter crates lyrics or poems with uniqueness and using interesting words and language which express their feeling and thought from their own experience. According to Dallin cited in Firdaus (2013), lyric is written as a form of interaction between a writer and listeners. Most of the times, they carry a message (whatever that might be) with the purpose of motivating listeners, at least, to think about it. Such purpose and form of interaction are embedded in the cultural context of these people, according to their musical preferences, time, etc.

## **RESEARCH METHODOLOGY**

This study used a descriptive qualitative research approach in analysing the associative meanings in the lyrics of Lorde's selected songs. The researchers concerned with analysing words, phrases, or sentences that contain the associative meaning which is connotative meaning, social meaning, affective meaning, reflected meaning and collocative meaning in several selected songs of the two albums by Lorde. The Leech's theory (1985) was selected in this study to support this research. This study aimed at figuring out the types and the functions of associative meaning.

The subject of this research is the lyrics of Lorde's songs from two albums namely "Pure Heroine" and "Melodrama". They consist of 27 songs from two albums. There are 16 songs from Pure Heroine and 11 songs from Melodrama. Meanwhile, the object of this research was associative meaning such as connotative meaning, affective meaning, social meaning and collocative meaning. In this research, the researchers chose 10 songs from two albums. The 5 songs taken from the first album namely "Pure Heroine" with the tittles *Royal*, *Team*, *Glory and gore*, *buzzcut season*, and *white teeth teens*. From the second album "Melodrama", 5 songs were taken, that is: *greenlight*, *the louvre*, *perfect places*, *magnets*, and *writer in the dark*.

In this study, the data were taken from Lorde's two albums, namely "Pure Heroine" and "Melodrama". The researchers used



Lorde's song lyrics as the source of the data because of two reasons. First, Lorde is known for narrative songs about her personal experiences, which made the researchers interested to know more about the meaning of the song lyrics expressed by Lorde. The second reason was that Lorde's song lyrics contain phrases and ambiguous words which are related to associative meaning. This source of data provided and supported the semantics meaning in this research.

Research instrument is a facility or tool used by the researchers to get the data in order to make the research process run easily and obtain the systematic data. In this study, the researchers used themselves as human instrument who participated directly in analysing the documentation.

The data of this study was taken from Lorde's selected songs of two albums. The researchers collected the song lyrics from two albums by Lorde. Then, they marked each word in every line of the songs from two albums. Finally, she analysed the words, phrases or sentences which contained the associative meanings such as connotative meaning, affective meaning, social meaning, reflected meaning and collocative meaning in the songs.

After collecting the data, the researchers used some steps proposed by Berg (2000) to analyze the data. The researchers classified words, phrases or sentences that contained associative meaning in Lorde's selected songs based on Leech's theory of associative meanings (1985). Then, they analysed words, phrases or sentences that contained associative meaning in Lorde's selected songs. After that, the researchers attempted to describe and explain the findings. Finally, they drew the conclusions based on findings and analysis.

## **RESULTS AND DISCUSSION**

In this study, the researchers marked words, phrases, and sentences that contained associative meaning in the lyrics of Lorde's songs according to Leech's theory (1985). Then the researchers determined the functions of the associative meaning in the song lyrics concerning with semantic theory. After that the data were analysed by using the following steps. First, the researchers explained the data with reference to five types of associative meanings; they are connotative meaning, social meaning, affective meaning, reflected meaning, and collocative meaning. Second, the researchers explained the functions of the

associative meaning in the Lorde's song lyrics by following the five types of meaning.

After the researcher analyzed the data taken from song lyrics of Lorde, the researchers found that there were sixty-nine data in associative meanings from 10 song's lyrics by Lorde. The researchers found there were seven data of connotative meaning, thirty-five data of social meaning, eleven data of affective meaning, eleven data of reflected meaning, and five data of collocative meaning. The result of the data analysis shows that there were sixty-nine data of associative meaning in Lorde selected song lyrics.

The following are the five types of associative meaning found in Lorde's song lyrics according to Leech's theory (1985). Each frequency can be seen in the table below:

**Table 2. The Frequency of Associative Meaning in the Lyrics of Lorde's songs**

No	Types of Associative Meaning	Number	Percentage %
1	Connotative Meaning	7	10.1%
2	Social Meaning	35	50.7%
3	Affective Meaning	11	15.9%
4	Reflected Meaning	11	15.9%
5	Collocative Meaning	5	7.24%
Total		69	100%

Subsequently, the table above shows that the most dominant type of associative meaning which are used in the Lorde's song lyrics was social meaning with its percentage of 50.7% from Lorde's ten songs.

## **Discussion**

This study was intended to analyse associative meanings in Lorde's selected songs. The researchers formulated two research questions for this study. The first research question focused on finding the kinds of associative meaning in Lorde's song lyrics and the second was to find the functions of associative meaning in Lorde's song lyrics. The result of this study shows that there were sixty-nine data belonging

to associative meaning from the lyrics of Lorde's 10 songs. The researchers found there were seven data of connotative meaning, thirty-five data of social meaning, eleven data of affective meaning, eleven data of reflected meaning, and five data of collocative meaning. It can be concluded that the mostly used meaning in the song lyrics of Lorde was social meaning.

Moreover, this result was different from the result of Fanni's study (2015) in which the mostly used meaning in her research was affective meaning. Meanwhile, Wau (2016), Harefa and Ginting (2018) found that connotative meaning became the most dominant meaning in the songs they analysed in their study. The researchers of this present study, nonetheless, found that the lyrics of Lorde's songs contained associative meaning which emphasized social meaning. It means that most Lorde's song lyrics used words, phrases, and sentences as minimum as possible but it has maximum meaning or messages. For example, *I am my mother's child, I'll love you 'til my breathing stops, I'll love you 'til you call the cops on me*. Those utterances are emphasized in form of social words, phrases, or sentences, because it included stylistic styles of language both formal and informal form. The word *mother* and *child* are usually used in formal language such as in official, in public speech or when a speaker interacts with a teacher/lecturer or other important people in a position of power of authority. Meanwhile *cop* is usually used by Americans in their daily activity to replace the word *police* and it belongs to colloquial or informal language. Furthermore, the lyrics taken from another song *feel the party to my bones, watch the wasters blow the speakers, spill my guts beneath the outdoor light, it's just another graceless night*. Those also emphasized the form of social words or sentences. The *wasters* are drunken persons and it is a New Zealand slang. Meanwhile, *spill my guts* is grouped under an idiom referring to physically throwing up from drinking too much alcohol and it belongs to informal language. Additionally, this research proved that the stylistic style of language is a part of social meaning as Mwihaki (2004) stated that the social meaning of an utterance is only indirectly related to conceptual meaning. However, the social meaning is effective because of the understanding of the relationships that exist between a speaker and the social purpose of verbal exchange. It should be noted that the essential function of social meaning lies in the emotive purpose of the utterance. Meanwhile, Masud (2017) stated when we say an equal thing in different ways, the stylistics meaning is created. Stylistic meaning

results from a style. For instance, *he died* and *he expired* have the equal meaning which has been expressed in different styles. These sentences are using different word of *die* and *expire* but has the equal meaning. *Expired* is the maximum date for the product to be consumed usually labeled on foods. However, *expire* in this context refers to human to express *he died* by using *he expired*.

Moreover, Azu (2007) provided some information about the speaker's identity conveyed by an utterance, for example, *then I says to him he can't do nothing right*. The use of the verb *says* with the first person singular pronoun expresses something about the social class of the speaker. Moreover, in *Is it a doctor in here*, the form *it* where most other English variations will use *there* shows a speaker from African American. Additionally, in *Y'all gonna visit over the holidays?*, the pronoun *y'all* and the verb *gonna* indicate certain regional dialects of American English (Southern). Furthermore, in *great chow!*, the choice of words here indicates that the comment is made in an informal context. Thus, social class, ethnicity, regional origin, and context are all kinds of social meanings. In addition to referential meaning, each utterance also conveys social meaning, not only in the sentence as a whole but in the word choice and pronunciation.

Nevertheless, based on the findings, it can be concluded that most of the lyrics in Lorde's songs used informal language such as colloquial, idioms, and slangs. It can be summed up that words, phrases, and sentences in Lorde's song lyrics have the same meaning with formal language even though they are conveyed in different words, phrases, or utterances. Therefore, because of their language styles, her songs look more unique and are enjoyable to listen to.

## **CONCLUSION**

This study has analysed and investigated the associative meanings in the lyrics of Lorde's selected songs. It can be concluded that the singer used five types of associative meaning as well as its functions. The researchers found there were sixty-nine data showing the associative meaning as well as their functions. There were seven data of connotative meaning, thirty-five data of social meaning, eleven data of affective meaning, eleven data of reflected meaning, and five data of collocative meaning. The overall objective of this study was related to the types and functions of the associative meanings which have been discussed in chapter four and it can be concluded that the types of

associative meaning mostly used in Lorde's song lyrics is social meaning due to the stylistic styles of language such as formal, slang, idiom, and colloquial. Meanwhile, social meaning is dominant because it shows the social circumstances or social situation which she experienced in her life. Lorde always spilled his disappointment, her sadness, and her pleasure into the songs, all primarily based on the facts and experiences in her life. Moreover, she recounted it by using various styles. Besides, Lorde always related words, phrases, and sentences to a unique term in her song. She also included the taboo words so that they make the song unique and nice for people and it will enrich listeners with new terms or new words. Finally, the researchers summarized that there were five types of associative meanings used in the Lorde's song lyrics, each of which had its own functions and categories.

## REFERENCES

- Azu. (2007). *Types of Meaning*. Retrieved March 12, 2007 from <http://www.azlifa.com/types-of-meaning/>.
- Bagha, K. N. (2011). A Short Introduction to Semantics. *Journal of language teaching and research*, 2(6), 1411-1419.
- Berg, L. B. (2000). *Qualitative Research Methods for the Social Sciences*. 4ed. California State University: Long Beach.
- Charles, W. K. (1998). *Introducing English semantic*. Routledge 11 New Fetter Lane: New York.
- Firdaus, A. D. (2013). Textual Meaning in Song Lyrics. *Indonesia University of Education Bandung*, 1(1), 99-106.
- Fanni, C. V. (2015). Associative meaning in Maher Zain's song lyric. Thesis. UIN: Sunan Ampel Surabaya.
- Finch, G. (2003). *How to study linguistics: A guide to understanding language*. Second edition. New York: Palgrave Macmillan.
- Fromkin, V., Rodman, R., & Hyams, N. (2003). *An introduction to language*. Boston: Heinle.
- Jones, A. (2003). What is associative meaning? WiseGeek. Retrieved August 19, 2018 from <http://www.wisegeek.com/what-is-associative-meaning.htm>.
- Harefa, D. K., & Ginting, I. (2018). Associative meaning of hendi-hendi in giving afo in nias wedding ceremony. *The episteme Journal of linguistics and literature*, 4(3).

- Haupt, E. (2016). The deeper meaning of music. Music is important. Retrieved October 17, 2016 from <https://www.theodysseyonline.com/deeper-meaning-music>.
- Kreidler, C. W. (1998). *Introducing English semantics*.: New York: Routledge.
- Leech, G. (1985). *Semantics: the study of meaning*. 2nd edition. Harmondsworth: Penguin.
- McGregor, B. W. (2009). *Linguistics: An introduction*. New York: British Library Cataloguing.
- Mwihaki, A. (2004). Meaning as use: a functional view of semantics and pragmatics. *Kiswahili forum*, 11, 127-139.
- Masud, A. (2017). Types of meaning or semantics. Retrieved November 16, 2017 from <http://masudadam.blogspot.com/2017/11/types-of-meaning-semantics.html>
- Nordquist, R. (2017). Associative meaning (language). glossary of grammatical and rhetorical terms. Retrieved April 06, 2017 from <https://www.thoughtco.com/associative-meaning-language-1689007>
- Stumme, C. (2015). What does magnets by disclosure and Lorde mean? Retrieved September 28, 2015 from <https://www.popsongprofessor.com/2015/09/28/what-does-magnets-by-disclosure-and-lorde-mean/>
- Wahyu. (2017). Ayok belajar.com. Song: Definition, Social Function, General Structure, Identify, and Language Features of Songs. Retrieved September 27, 2017 from <https://www.artikelbelajar.com/song-definition-socialfunction/>.
- Wau, D. K. (2016). Associative meaning in Hoho lyrics of Nias traditional songs. Thesis. State University of Medan.
- Yule, G. (2010). *The study of language*. Fourth edition. New York: Cambridge.