Treatise on Writing, Treatise on Music: Comparing Terminology[1]

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If the grandiose celebration of the 60th anniversary of the Tibetan Institute of Performing Arts (TIPA) is any indication, one might expect all of the Tibetan cultural heritage to be well preserved and documented. However Tibetan traditional fine arts[2] historically had very little coverage in Tibetan literature, since practical knowledge was supposed to be transmitted orally from a master to a student at a workshop. As oral traditions can disappear without a trace, every text on fine arts, e.g., calligraphy and music, thus becomes a valuable source of data.[3]

In this context, two texts, one on calligraphy and another on music particularly stand out to me. Both treatises date back to the period of the later spread of Buddhism in Tibet (*bstan pa phyi dar*, the late 10th–13th centuries), explain a relevant art form and, as I noted while working on them, use similar classification methods inside their fields of knowledge. Yet their historical fates turned out differently: while the treatise on calligraphy became quite renowned, the tractate on music has remained virtually unknown to Tibetan musicians and the general public until recently.

For analyzing these texts I combine the known facts about their historical and cultural background with a specially developed structuralist methodology model based on some techniques of text linguistics and terminology studies. There is not enough historical data on the topic and a small chance to find any additional

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[2] Skt. *Śilpakarmasthanavidyā*, Tib. *bzo gnas kyi rig pa*, one of the five great sciences according to the traditional system of Indo-Tibetan knowledge. Fine arts were considered a basis for all other sciences and included the production of *stupas* and *thangka*s, calligraphy, astrology, music, Tibetan opera, etc.
[3] As the 14th Dalai Lama noted himself in a foreword to a book on Tibetan calligraphy: "I hope and pray that this [book] will […] help towards the preservation and rejuvenation of our rich cultural heritage from destruction" (Snang rgyal 2000: VI).

information in the future. Thus a linguistic comparison between terminological systems of the two texts can become a useful tool to provide the necessary data to construct a valid hypothesis regarding their respective historical trajectories. Terminology for me was an obvious choice for an object of analysis, since both texts are usually perceived as early theoretical works on Tibetan arts, which provide specific information and are rich in special lexica.

Although the idea to compare terminologies of the two texts came from my personal interest while working on these two texts separately, this method itself is supported by similar researches in the field of text linguistics for author, date and genre attribution, text comparison, text validation, etc.

1. Treatise on Writing

The first text discussed here is a treatise on calligraphy called "Magical Lantern: An Encompassing Treatise on Writing and a Treatise on Pens"[4] (henceforth the *ML*) that was allegedly written in the 11th–12th centuries by Khyung bo g.yu khri, a famous calligrapher of that time or, as some argue, by one of his disciples—a calligrapher named Rong po.[5] The treatise sets basic rules for Tibetan *dbu can*[6]-style calligraphy prescribing proper strokes and proportions of Tibetan letters and punctuation signs.

Khyung bo g.yu khri is known as a founder of two calligraphic schools—the Sbal lugs in 'Phan yul[7] and the Mang lugs in Ngor[8]. His calligraphic style *khyung bris*[9] was used in the production of two golden-lettered editions of the Bka' 'gyur: *Gser bris bka' 'gyur them spangs ma* and 'Bras spungs' *Gser bris 'dzam gling gyas bzhag*.[10]

The text of Khyung bo g.yu khri's treatise was later used in several doxographic (encyclopedic) works, such as *The Removal of the Tarnish of Deluded Appearances*[11] by Sde srid Sangs rgyas rgya mtsho (1655–1705) and *The Treasury of Knowledge*[12] by 'Jam mgon kong sprul Blo

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[4]   *Yi ge'i bstan bcos stong thun smyug gu'i bstan bcos 'phrul gyi sgron me zhes bya ba bzhugs so.*
[5]   *Tibetan calligraphy* 1996: 14; Kongtrul 2012: 927.
[6]   Lit. "headed"—the square style of Tibetan writing used in woodblock and modern printing.
[7]   A valley to the north of Lhasa, where Lan pa Monastery is located.
[8]   A valley to the south-west of Gzhis ka rtse, where Ngor e waṃ chos ldan Monastery is located.
[9]   Lit. "Khyung bo's writing style."
[10] Rig 'dzin bstan srung 2006: 113.
[11] *'Khrul snang g.ya' sel.*
[12] *Shes bya kun khyab*.

gros mtha' yas (1811–1899), in sections dedicated to *bzo gnas kyi rig pa* (arts and crafts) and Tibetan calligraphy in particular. At the beginning of the 20th century, Tshe tan zhabs drung used Khyung bo's proportional system as a model to create a similar set of rules for cursive calligraphic styles.[13] From the 1980s onwards, Tibetan authors both in Tibet and in diaspora regularly use and cite Khyung bo's treatise in works on Tibetan calligraphy.[14]

Although the text of the *ML* has spread widely in the form of citations, there is only one known separate edition of the treatise, a reconstructed *dbu med*[15] manuscript from the personal collection of calligrapher Smon lam rgya mtsho[16], published in 1994–1995 in the issues no. 47 and no. 48 of *Zla zer* journal.[17] As there is not enough data on the history of the text to name the most correct or the oldest version, for critical comparison I used three additional versions of the *ML*, from *The Treasury of Knowledge*,[18] *Precious Treasury of Sutras and Tantras*[19] by Klong chen Chos dbyings stobs ldan rdo rje (1785–1848) and *The Rules of Tibetan Writing, a Sight that Everyone Desires*[20] published in 1997 by Dpa' ris sangs rgyas.

The text of the *ML* consists of five main parts. The first part is an introduction, in which the author pays his respects to Mañjughoṣa Mañjuśrī and explains importance of studying fine arts. The second part of the text covers the history of Khyung bo g.yu khri's tradition from the creation of Tibetan writing by Thon mi Sambhoṭa to the spreading of Khyung bo's tradition by his students. It is obvious that this part could not have been written by Khyung bo g.yu khri himself, while the repeated usage of borrowed Buddhist terms could indicate that this part of the text was added later by someone with a monastic background.[21] The third part of the text, called "Magical Lantern: A Treatise on Pens,"[22] describes different types of Tibetan writing utensils and presents proper methods of preparing and using Tibetan pens. The fourth part also has a colophon where it is called "Magical Lantern: A Treatise on Writing"[23] and is attributed to

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[13] Tshe tan zhabs drung 2007.
[14] See 'Gyur med tshul khrims 2006 and others described in Kramskova 2014: 41–76.
[15] Lit. "headless"—the cursive style of Tibetan writing.
[16] Khyung bo g.yu khri 1994: 89.
[17] Khyung bo g.yu khri 1994; Khyung bo g.yu khri 1995.
[18] 'Jam mgon kong sprul Blo gros mtha' yas (1862–1864) 2000.
[19] *Mdo rgyud rin po che'i mdzod* (Klong chen chos dbyings stobs ldan rdo rje 2002).
[20] *Bod yig 'bri tshul mthong ba kun smon* (Dpa' ris sangs rgyas 1997).
[21] More detailed discussion will be presented in section 3.1 of the current article.
[22] *Smyug gu'i bstan bcos 'phrul gyi sgron me zhes bya ba bzhugs so* (Khyung bo g.yu khri 1994: 92–93).
[23] *Yi ge'i bstan bcos 'phrul gyi sgron me zhes bya ba bzhugs so* (Khyung bo g.yu khri 1995: 79).

Khyung bo g.yu khri himself. It presents a set of rules for basic Tibetan graphemes[24] and their constituent graphical elements that prescribe their proportions, balance between black and white spaces, directions, order of strokes, and tempo of writing.

These rules are divided into five major categories: important qualities (*gces pa*) that point out the most significant features of the most common graphemes; manifestations (*'don pa*), or important characteristics that should always be present in well-written graphemes; primary qualities (*ma chos*) that describe the best, the average and the worst possible forms of the seven most common graphic elements; secondary qualities (*bu chos*) that describe similar forms of diacritical signs; common qualities (*spyi chos*) that present three basic principles of writing Tibetan graphemes.[25]

The last part of the text is a set of detailed step-by-step practical instructions for writing most of the graphemes.

2. Treatise on Music

The second text under analysis is the *Treatise on Music*[26] (henceforth the *TM*). It was written in 1204 by Sa skya Paṇḍita Kun dga' rgyal mtshan (1182–1251). One of the most influential figures in the history of Tibetan Buddhism, he is famous not only for his religious and political activities as a Sa skya patriarch, but also for his academic prowess. His *Treasury of Valid Reasoning*,[27] *Elegant Sayings*,[28] *Clear Differentiation of the Three Sets of Vows*[29] and *Elucidating the Sage's Intent*[30] are well known among Tibetan intellectuals. Yet, unlike these works, the *TM* for a long time remained virtually unknown even to the followers of the Sa skya school itself. The situation somewhat changed in the mid–17th century, when the 28th head of the Sa skya Monastery A myes zhabs Ngag dbang kun dga' bsod nams (1597–1660), lamenting the unfortunate fate of the treatise,[31] dedicated a full commentary[32] to this work in 1624.

After this, the *TM* apparently gained some recognition as it was

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[24] 30 letters of the alphabet, three superscribed vowel and three subscribed consonant diacritic signs, and two punctuation signs—*shad* and *tsheg.*

[25] For more details on Khyung bo's rules of writing see Grokhovskiy & Kramskova 2014.

[26] *Rol mo'i bstan bcos.*

[27] *Tshad ma rigs pa'i gter.*

[28] *Sa skya legs bshad.*

[29] *Sdom gsum rab dbye.*

[30] *Thub pa dgongs pa rab gsal.*

[31] A myes zhabs Nga dbang kun dga' bsod nams (1624) 2000: 536.

[32] For all published editions see Butsyk *et al.* 2018: 43–44.

included in the collective works by Sa skya Paṇḍita, several *Sa skya Bka' 'bum* editions, and even in *Shes bya kun khyab*.[33]

For the current study I used the *TM*'s edition published in 1992–1993 in Dehradun's *Sa skya Bka' 'bum* that is considered to be the oldest version of the text as it was copied from the 1736's Sde dge printing woodblocks.

The text of the *TM* is divided into three chapters. The first chapter is dedicated to melodies: it classifies different types of music (*rol mo*) and types of ritual melodies (*dbyangs*), as well as means of expressing various sounds (*nga ro*) and ways of combining different sounds, chanting and words. The second chapter deals with the usage of words in different communicative situations. Kun dga' rgyal mtshan[34] suggests that a type of audience (*yul*) that is present at the performance determines the singer's attitude to the addressee (admiration, contempt, rivalry, or other emotions). According to the type of audience a musician also has to choose a function of a song, content, and a form for its lyrics (poetic or prosaic). This chapter provides the reader with general guidelines on how to choose between poetic and prosaic form, as well as on how to determine the main features of the present audience and select fitting metaphors and comparisons to describe the *yul*.

In the third chapter the author underlines the importance of the proper mental attitude and body posture for a musician during the performance, which also differ depending on the genre of a song, its purpose and contents. He distinguishes different types of human voices based on home region, age, gender, and timbre of their owners. Certain voices, according to Kun dga' rgyal mtshan, can bring additional flavor to songs of corresponding genres.[35] At last, he briefly lists Tibetan traditional musical instruments, mentioning that he will not cover the instrumental music in the *TM* to avoid "redundancy."[36]

As the purpose of this study is not to describe the contents of this work in great detail, for more information on the musical categories of the *TM* see a recent commentary study accompanied by an annotated translation into Russian by P. Butsyk, P. Grokhovskiy, and A. Kharkovskiy in 2018 (with the help on terminology from my side).[37] The commentary also provides a thorough overview of the previous works carried out on the *TM*. Among them is one of the

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[33]   Butsyk *et al.* 2018: 57–68.
[34]   Henceforth Kun dga' rgyal mtshan's title "Sa skya Paṇḍita" will not be used when addressing him as the author of the *TM* to avoid anachronism.
[35]   Sa skya Paṇḍita 1992–1993: 5a–5b.
[36]   Sa skya Paṇḍita 1992–1993: 6b.
[37]   Butsyk *et al.* 2018.

earliest and most detailed analyses of the *TM* presented in Ricardo O. Canzio's dissertation,[38] in which he gives much thought to the connections between musical categories and terminology used in the treatise. Another major research on musical categories of the *TM* was conducted by M. Helffer.[39] A. Egyed[40] and G. Gordon[41] in their works mostly concentrate on the *TM*'s place in the Tibetan musical tradition, and the article by Mao Jiceng[42] gives an insight from the position of Chinese philological tradition. For current research these works provided much help in understanding historical and cultural background of the *TM* and the meaning behind its terminology.

3. Terminological Systems of the Two Treatises

As mentioned before, in this article I use linguistic analysis to gather additional data on the two texts that along with knowledge of their historical background would be enough to dim light on the main question. The basic idea of this analysis was to compare the terminological systems of the *ML* and the *TM* with the help of formal linguistics.

Having previously studied terminologies of each treatise separately, I noted some similarities between them and wanted to find out what differences might be between them. Thus, I came up with the idea to combine traditional methods of terminology science (qualitative and quantitative analyses of terms, term classification, terminological hierarchies analysis) and text linguistics (text structure analysis). Later I also tested on the texts all of the metrics for relevance that allowed to sort out the most important characteristics for the present analysis.

For each treatise[43] I compiled a list of terminology, with the terms sorted out by their field of functioning: specialized, general scientific, borrowed, and homonymic. Specialized terms refer to the terms that define innate concepts of a particular field of knowledge. General scientific terms represent lexical units that preserve a single meaning in various terminological fields. Homonymic terms are used in

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[38] Canzio 1978. This dissertation was also published in 2019 in Kathmandu by Vajra Books.
[39] Helffer 1998.
[40] Egyed 2000.
[41] Gordon 2009.
[42] Mao 1993.
[43] See the lists of terms that were used in this study (with some modifications) in Butsyk *et al.* 2018: 414–419 and Kramskova 2014: 98–127.

several fields of knowledge with different meanings. Borrowed terms refer to the terms that belong to other fields of knowledge.[44]

Then, according to these terminology lists, I conducted a mark-up on electronic versions of the two treatises.[45] The mark-up was done semi-automatically with subsequent manual control and corrections done by me, yet there is still a possibility of an error.

I measured the resulting terminological models by type rate and type distribution of terms per text and per chapter. Additionally, I analyzed the terms for several formal characteristics, such as length, part of speech rate, type of word building model, etc. By judging their internal structure, terms can be divided into single-word terms and terminological phrases. I traced the occurrence of monosyllabic, disyllabic, and trisyllabic single-word terms in the two texts, as well as terminological phrases which are three and more syllables in length.

Terminology can form hierarchical ties between its elements naturally during its use, or it can be organized in a form of hierarchies by its author. Throughout each text I analyzed the hierarchical relations discovered, and described them in hypernyms, or more generic superordinate classes, and hyponyms, i.e., their subcategories. Popular non-academic terminologies show less systematization with fewer hierarchical relations between the terms compared to original terminologies that reflect an author's theory.[46]

It should be noted that the word "term" in its modern strict definition does not fully apply to the special lexis of the two treatises, which rather consist of so-called "pre-terms"—lexemes used as terms in subject areas for naming concepts but not meeting the basic requirements for a term.[47] Though it is obvious that the terminologies of the two treatises were formed long before the establishment of modern science, out of convenience in the current study instead of "pre-term" I will use the name "term," defining it at its broadest meaning as a lexical unit "that denotes a general concept of a theory in the specific field of knowledge or activity."[48]

3.1. Terminological System of Magical Lantern

The *ML* has in total 222 terms per 12 A4 pages (5971 syllables, 2709

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[44] Grinev-Grinevich 2008: 25.
[45] I took part in creation of the electronic copies of the *ML* and the *TM* during work on electronic corpora of Tibetan texts under the supervision of P. L. Grokhovskiy.
[46] Leychik 2007: 107.
[47] Leychik 2007: 32.
[48] Leychik 2007: 31.

words). At 88.7%, the specialized terms constitute its terminological majority, the rest of the special lexicon is represented by terminology borrowed from Tibetan Buddhist doctrine, grammar, and poetics (6.8% in total) and by general scientific terms (4.5%).

The specialized terminology includes abstract calligraphic concepts, names of graphic units, writing utensils, and writing styles. The terms denoting graphic units (197 terms) fall into two major subgroups: names of graphemes (e.g., *ka* "letter ka," *tsheg* "dot," *na ro* "vowel o") and names of their constituent elements, such as *mig 'dril* "rolling eye," *sbo* "belly," *gdan thabs* "seat." There are 52 terms describing Khyung bo's typological categories and abstract graphic characteristics. Among them are *gces pa* "important properties," *'don pa* "manifestations," *tshad* "proportion," *dag* "correctness," *snyoms* "balance," *shad mnyam* "similarity of *shads*," *khong 'dren* "inner pull," *'khyugs* "swiftness," etc. Terms denoting writing utensils (24 terms) include names of pens, inks, supporting devices and their parts such as *lho smyug* "southern pen," *pir* "brush," *smyug gri* "pen knife," *snag gser* "golden ink," *thig shing* "ruler," *rtse mo* "tip [of a pen]," *gas* "cleave [of a pen]." The last subgroup of the specialized terminology comprises names of calligraphic traditions and calligraphic styles (15 terms), e.g., *ldan lugs* "*ldan lugs* tradition," *khyung bo'i lugs* "Khyung bo's tradition," *lan dza* "lañja style."

The list of 15 borrowed terms of the *ML* mostly consists of names of Buddhist concepts like *thugs dam* "tutelary *yidam*," *thugs kyi rten* "support of the Mind," *sangs rgyas* "Buddha," *dge slong* "monk." The overwhelming majority of them occur in the second part of the text that covers the history of Tibetan calligraphy. There are only three terms borrowed from other fields of knowledge. The terms *'dogs pa* "subscribed [letter]" and *tshig* "word" were borrowed from traditional grammar. The term *tshigs su bcad* "verse" is from poetics.

Homonymic terms are represented by two terms: *man ngag* "instruction [on writing]" and *gdams ngag* "advice [on writing]." These are terms that both mean "secret oral religious instructions" in Tibetan Buddhist doctrine. It should be noted that *man ngag* and *gdams ngag* occur only in the *ML* version published in *Zla zer* journal:

> [For the letter *za*] it is **instructed** [to write] two balanced white spaces.[49]

The corresponding passage in Dpa ris sangs rgyas reads:

> [The letter *za* has] two balanced white spaces between three black

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[49]   *dkar gnyis mnyam pa **man ngag go*** (Khyung bo g.yu khri 1995: 78).

spaces.[50]

The usage of terms homonymic with those of Buddhist doctrine could further substantiate the hypothesis that this version was edited by a person with monastic upbringing.

Finally, there are 10 general scientific terms that reflect abstract concepts (e.g., *don* "meaning," *bye brag* "special feature," *mtshan nyid* "feature").

The usage rate of terms varies from one part of the text to another, with an average figure of 40.8% per text. The introduction has only 19 terms that constitute 31% of all the words in this part, half of these terms are specialized, the rest belongs to religious and general scientific lexica. The second part at 23% has the lowest rate of term usage (most of them are from Buddhist terminology), but this part is rich in toponyms and personal names of historical figures, such as *srong btsan sgam po* "[king] Srong btsan sgam po," *rgya gar* "India," *tra shod 'bum me* "[calligrapher] Tra shod 'bum me," etc. The third part consists by 38 % of terms of a special lexicon; most of them are specialized names for writing utensils. The fourth and the fifth parts have the highest rates of term usage of 58% and 54% respectively, as well as the highest percentage of specialized terms.

Terms with the highest occurrence rates refer either to some graphic element or a general scientific concept: *mgo* "head" (occurs 81 times), *yi ge* "letter" (62 times), *cha* "element" (67 times), *rkang* "leg" (30 times), *dpung* "shoulder" (27 times).

The majority of the *ML*'s terminology are nouns. There are also several adjective terms used for characterizing graphic elements (e.g., *rab* "best," *'bring* "average," *zlum* "round") and verbal terms denoting ways of drawing lines (e.g., *skor* "twist," *'then* "pull").

The majority of terms are disyllabic single-word terms. The longest terminological phrase consists of 14 syllables: *phying bu dkar po'i steng du nas sngon mo bsgrigs pa dang 'dra ba* "[writing] that resembles green barley sprinkled over white felt." The usual principle is the longer the term the more rarely it occurs.

Simple terms consisting of only a root denote indivisible elementary concepts and often can form a linguistic tree of derivative terms. For example, the term *smyug gu* "pen" forms the following derivatives: *lho smyug* "southern pen," *nyag smyug* "caved pen," *smyug thogs* "writer." Many names of basic concepts like *yi ge* and graphemes have derivative trees.

Most terms were formed by an ellipsis—through omitting grammatical particles between the roots of the main and dependent

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[50] *nag gsum bar gyi dkar gnyis mnyam* (Dpa' ris sangs yas 1997: 59).

words, e.g., two nouns, a noun and a participle, a noun and an adjective or two verbs: *snag lam* "stroke" from *snag gi lam* "path of the ink," *'dzin so* "holding tooth"[51] from *'dzin pa'i so*, *snag gser* "golden ink" from *snag gser po*, *zhun thar* "smelting and refining"[52] from *zhun nas thar pa*. Longer phrasal forms with limited ellipsis like *bris kyi mnyam* "balance of the written [letters]" occur as well. Additionally, some terms denoting abstract concepts are formed by combing roots of two words with opposite meanings, e.g., *mtho dman* "height."

The second most popular word building strategy is a metaphorical transfer when graphic elements are named after parts of human body (e.g., *gru mo* "elbow") because of their visual and/or functional similarity.[53]

There are 28 terms formed using morphological methods—either by nominalizing a verb with the *pa/ba* particle (e.g., *'don pa* "manifestations" is formed from the verb *'don* "to make to appear, to take out") or by adding a special suffix to a verb root (e.g., *'bri mkhan* "writer" is formed from the verb *'bri* "to write").

There are nine terms translated or phonetically loaned from other languages. For example, names of traditional sciences and Indian scripts were borrowed from Sanskrit (*rig pa'i gnas lnga* from "*pañcavidyā*," *na ga ra* from "*nāgarī*") and a name of a writing utensil *pir* "brush"—from Chinese *bi* 笔.

The largest theoretical categories (*ma chos* "primary qualities," *gces pa* "important qualities" and others) are not structured in any semantic hierarchy. Most of them have only one hypernym or none at all, as in *thig* "line" or *sha* "flesh." Only some of graphic elements have additional subtypes. The biggest hierarchical trees have three elements (e.g., *yan lag* "element" → *mgo* "head" → *zur gsum tshag mgo ba* "triangle yak head").

3.2. Terminological System of Treatise on Music

The *TM* has 103 terms per seven double-sided *dpe cha* folios (3406 syllables, 1523 words). All in all, the text's terminology has 52.4% of specialized terms, 21.4% of homonymic terms, 19.4% of borrowed terms, and 6.8% of general scientific terms.

The specialized lexicon of the *TM* includes names of singing techniques, abstract musical concepts and musical instruments.

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[51]   One of the elements of the subscribed letter *ya*.
[52]   The term refers to the process of smelting and refining iron tips for pens.
[53]   In some cases, they are named even after houseware or weapons: *gdan* "seat," *mdung* "spear."

The biggest category of the specialized lexicon is represented by terms that denote different types, ways and characteristics of singing and types of melodies (27 terms): *bsgrengs pa* "rising [type of drawing melody]," *brtsegs pa* "layering," *bsgyur ba* "changing [tone]," *mo* "female register," *seng ge'i nga ro* "lion's roar," *sngon la 'gro ba* "outpacing [singing]," *zhum* "weak [voice]," etc.

Another group is comprised of 15 terms that reflect basic or abstract musical concepts, such as *skad* "vocal register," *nga ro* "sound," *gdangs kyi skyon* "deficiency of voice," *rkyen gzhan las byung ba* "instrumental [music]" (lit. "arisen from other causes").

Finally, there are the 12 names of most common instruments used in the Tibetan musical tradition (most of which occur only once per text): *rgyud* "lute," *rnga phran* "small drum," *cha lang* "cymbals," *dung* "horn," *gling bu* "flute," *'khar rnga* "gong," *rnga bo che* "big drum," and others.

14 out of 20 borrowed terms come from poetics and are used mainly to describe a song's lyrics: *tshig* "word," *snyan ngag* "poetry," *tshigs bcad* "verse," *rkang pa* "string [of words]," etc. The remaining terms belong to traditional religious terminology and occur in the introduction, colophon, and the third chapter of the treatise (e.g., *slob dpon* "teacher," *mchod* "offering," *rgyal sras* "son of the Victorious").

One of the specific features of the *TM* is a large number and frequent usage of terminological homonyms that are also used in the Tibetan grammatical tradition (22 terms and 30.8% of the total term usage). For example, one of the basic musical terms of the treatise, *dbyangs* "melody" in grammatical texts means "vowel."

At last, there are seven terms that express universal scientific concepts: *bye brag* "type," *dpe* "example," *rnam pa* "type," *chos* "characteristic," *don* "meaning," *yul* "object," *rkyen* "condition."

Terminological usage rate does not much differ throughout the text with 29.8% in average, except for the third chapter with a drop in term usage to 20.3% from 33–35% in the first two chapters because of the parts with the author's general reasoning on morals.

Out of all cases of term usage the biggest amount at 47.3% is constituted by specialized terms, homonyms follow closely at 30.8%, and the rest is made up by borrowed terms at 12% and general scientific terms at 9.9%. The average frequency rate of term usage by type is different: the highest being 4.1 times for homonymic and general scientific terminology and only 2.6 and 1.8 for specialized and borrowed terms respectively.

The terms with the highest occurrence rates include names of basic musical notions and abstract categories of the treatise, e.g., *dbyangs* "melody" occurs 31 times, *tshig* "word"—24 times, *bsgyur ba* "changing [tone]"—16 times, *sgra* "sound"—15 times, *ltengs pa*

"attenuation and amplification"—14 times.

Most of the terms are nouns including quite a large number of nominalized verbal nouns. Additionally, there are five adjectives that describe characteristics of melodies (like *tsher* "sonorous," *pho* "male [register]") and two verbs: *dbyangs len* "to draw a melody" and *dbyangs sbyor* "to compose a melody."

Single-word terms with a length of one to three syllables constitute the majority of terminology, terminological phrases number from three to seven syllables. The longest terminological phrase is *gtam brgyud kyi zlos gar byed pa* "performing theatrical dance to the story." Disyllabic single-word terms make up for 43.6% of all terms, with single-words usually occurring more than five times and most terminological phrases occurring only one time.

The most common word building method is verb nominalization with *pa/ba* particles, as in *bkug pa* "bent [tone]" from the verb *'gugs* "to bend." Ellipsis is used rather rarely with the majority of terminological phrases keeping generative case markers and other particles. Concise and full forms of the terms can occur simultaneously in the same chapter with ellipsis happening only due to the poetic rhythm, for example: *lhan skyes* "vocal music" from *lhan cig skyes pa'i rol mo* (lit. "music arising together [with the artist's body]").

Loanwords (12 terms) are represented by terms directly loaned from Sanskrit like names of musical instruments *pi wang* (Skt. *vīṇa*) or *ka na di* (Skt. *khāṇḍikā*) and terms translated from Sanskrit like *byang chub sems dpa'* "bodhisattva."

Hierarchical ties between the terms reflect a profound classification system with all basic concepts semantically organized. Hyponym-hypernym trees have up to 5 elements as in: *rol mo* "music" → *lhan cig skyes pa* "vocal [music]" → *bsgyur ba* "changing [tone]" → *mgrin* "[changing] by throat" → *mgrin ring* "long throat [changing]."

Additionally, special attention needs to be addressed to the metaphorical terms used as names of melodies. For example, *seng ge'i nga ro* "roar of a lion" refers to the loud and confident type of singing "appropriate for performance at a meeting"[54] compared to a soft and delicate *bung ba rol pa'i tshul* "play of a bee" that should be performed at "secluded places."[55] Such usage of well-known imageries to describe different types of melodies are very similar to the usage of riddle-like *rupaka* ("metaphor") in *kāvya* poetry.

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[54] *tshogs su seng ge'i nga ro ste/* (Sa skya Paṇḍita 1992–1993: 5b).
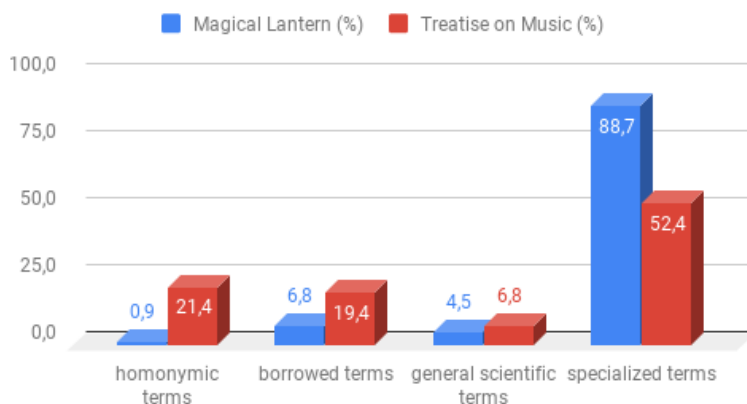[55] *dben par bung ba rol pa'i tshul/* (Sa skya Paṇḍita 1992–1993: 5b).

4. Terminologies as Reflections of Historical Backgrounds

The conducted terminological analysis reveals several formal similarities between the two treatises. First, specialized terms make up the largest category of terms for both texts while the general scientific terminology is low in number. The majority of terms in both treatises are nouns; there is also some addition of adjectives and verbs. There are more simple terms than derivative terms for both texts. Both treatises' terms are formed mostly by syntactic word building methods such as ellipsis and nominalization. Morphologic and semantic methods are less common. Mono- or disyllabic single-word terms occur several times more often than multisyllabic terminological phrases, which usually occur only once per text. The rate of loanwords is low for both texts.

Such similarities are not very representative, as they result from the peculiarities of the treatises and the nature of the Tibetan language itself. The differences, on the other hand, provide much more interesting data.

The *ML* has a higher ratio of terms per text in total (36.1% against 19.2% in the *TM*, see Diag. 1) and a higher rate of specialized terms (see Diag. 2), while most of its borrowed terms occur only in the second part of the text (which seems to have been severely modified or written entirely by a third party).


Diag. 1. Term ratio

Magical Lantern (%) Treatise on Music (%)

	homonymic terms	borrowed terms	general scientific terms	specialized terms
Magical Lantern (%)	0,9	6,8	4,5	88,7
Treatise on Music (%)	21,4	19,4	6,8	52,4

Diag. 1 — Term ratio by type

Compared to it, the *TM* has more homonymic and borrowed terms both in ratio to all terms and in usage, and its usage rate of

homonymic terms (30.8 %) is comparable with that of specialized terms (47.3%).

Diag. 2. Term usage rate

■ Magical Lantern (%)   ■ Treatise on Music (%)
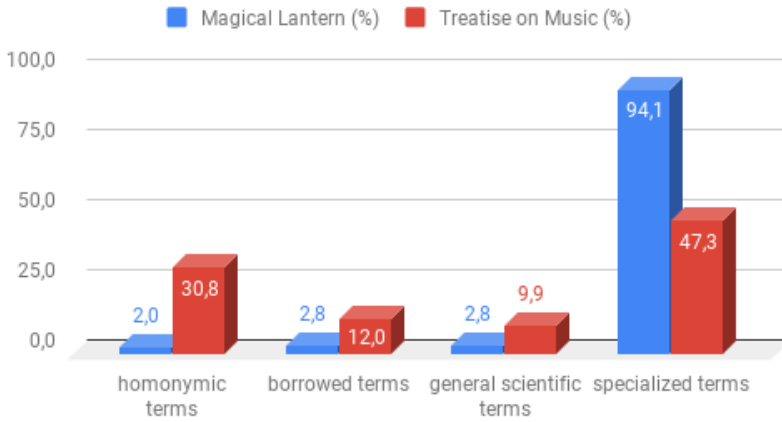
Diag. 2 — Term usage rate by type

Both treatises have syntactically built terms, yet the majority of such terms in the *ML* are formed by ellipsis, while the *TM* has terminological phrases formed without omitting grammatical particles.

The *ML* has a lot of terms denoting graphic elements that were formed by simple metaphoric transfer, for instance: the element *mgo* "head" is called so because it is located at the uppermost part of the letter and both serves and looks like its head. This word-building method is not a characteristic of the *TM*, on the other hand, it has a group of metaphorical terminological phrases that serve as names for the ways of producing melodies.

Close attention to the practical aspect of the subject displayed in the *ML* is supported by the difference between ratio and usage rate of instrumental terminology of the two texts. While the *TM* has 12 terms denoting musical instruments which occur only once throughout the text, the *ML* has 19 terms referring to calligraphic instruments and their parts which together occur almost three times as much (56 times).

Another interesting point of divergence for the two treatises is the hierarchical structures of the two terminologies. The *TM* has longer hierarchical sequences (up to five members against only three in the *ML*). All specialized terms belong to some hypernym-hyponym

connection (with the only exception of *dbyangs mkhan* "singer"). The *ML*'s terminology at the same time contains a large group of specialized terms (34%) hierarchically not connected with any other term. All in all, the *TM*'s terminology is more systematized, while the terminology of the *ML* appears to be closer to traditional terminologies that evolve more chaotically and possess less thought-of structure of internal connections.[56]

The origin of the specialized terms is also different in these two texts. The *ML*'s specialized terms are mostly unique and characteristic only of this treatise (e.g., *ma chos*, *mig 'dril*, *nag mnyam* "balance of black [space]," etc.), with the majority of them being nouns formed by metaphorical transfer or ellipsis, with rare inclusions of nominalized verbs like *'don pa*, some adjectives and even rarer verbs. Such a situation is a usual case with terminologies in general, as terms are used to name mostly theoretical concepts in any field of knowledge. As for the *TM*'s specialized terms, which are already lower in ratio because of a high number of borrowed and homonymic terms, they on mass consist of common names of musical instruments, proverbial metaphoric phrases and basic musical terms like *dbyangs* and *rol mo*. There is only one group of terms that can be called original and characteristic of the text that is the terms for different types of melodies. Interesting though, that this authentic terminology does not contain any proper nouns. It consists only of nominalized verbs (e.g., *bsgyur ba* "changing [tone]"), adjectives (e.g., *zhum* "weak") and proper verbs (e.g., *dbyangs len* "to draw a melody").

To explain the differences revealed during the comparison of the two treatises, one has to do some research on the social statuses of the authors, historical settings and other factors that formed the cultural backgrounds of these two works, as well as assess them in the context of similar works on arts.

As mentioned earlier, Khyung bo g.yu khri was always known as a professional calligrapher, who had his own original style of writing. He founded two calligraphic schools and, presumably, taught a lot of students in his lifetime. Besides, he lived between 11th and 12th centuries—the time of vigorous translating and publishing initiatives brought by the second spread of Buddhism in Tibet, when the demand for scribers with good calligraphic skills was presumably high. From this perspective, Khyung bo g.yu khri's treatise appears to be a practically-oriented, rather than theoretical, set of mnemonic verses to be recited while writing. Mnemonic technique of learning information by organizing it in the form of verses or rhythmic prose

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[56]   Grinev-Grinevich 2008: 125.

is deeply rooted in Tibetan culture in general. Hence, it seems likely that Khyung bo g.yu khri, a person who taught calligraphy for a living, would create a system of basic writing rules for his novice students. The aforementioned references to Rong po[57] as the true author of the *ML* in Tibetan sources could further support this hypothesis. Since Tibetan masters usually exhibit diffidence when writing about their own traditions, this hypothesis explains the presence of the part covering the history of Khyung bo's calligraphic tradition and dims light on how the treatise was created in the first place.

The *ML*'s terminology shows us that while the author of the treatise was acquainted with Buddhist religious notions, he was not a monastic scholar: references to Buddhist notions as in *zur gsum khro bo'i mig* "triangle eye of a wrathful [deity]"[58] are rare, and there is almost no Buddhist terminology apart from the second part of the text (only terms like *thugs kyi rten* "support of [Buddha's] mind" in the introduction). Most specialized terms are practice-oriented and original; borrowings from grammar or poetics, with which many Tibetan scholars were familiar at the time, are scarce.[59]

The conclusion that these terms were highly specialized jargon is elucidated by the fact that (especially when explaining *gces pa* "important qualities") later scribes who copied his text of the *ML* had trouble discerning them and employed various versions of the terms: *yas 'phur/yar phul/yar 'phul* "upper prefixed [graphic element]," *sked gtsang/ske gtsang/rke gtsang* "clear neck," *phyir 'bring/phyi 'brang* "chasing forward,"[60] etc.

At the same time, along with the unique terms, there are some terms that can be attributed to Tibetan general calligraphic knowledge.[61] Among them are the names of calligraphic styles and schools, and names of some basic graphic elements like *mgo* (or its honorific form *dbu*) "head," *rkang* (hon. *zhabs*) "leg" and *so* (hon. *mche ba*) "tooth."[62] The term *sha* "flesh [of the letter]" usually is paired with

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[57] Khyung bo's student.

[58] One of the types of grapheme *mig* "eye."

[59] It should be noted that the latter can be to some extent explained by the fact that many classical Indian works on poetics were translated into Tibetan only after the mid–12th century.

[60] One of the *gces pa* "important [qualities]."

[61] It should be noted that though there are no other known original Tibetan works on calligraphy prior to the 20th century, every monastery and master of calligraphy had their own oral tradition of teaching it. Some of these traditions nowadays are getting a written form, e.g., "Principles of Tibetan Art" published by Tibetan artist and calligrapher Gega Lama in Darjeeling in 1983.

[62] Gega Lama 1983 vol. 2: 59–60.

the term *rus* "bones [of the letter]"[63] and apparently comes from the Chinese notion of measuring the thickness of strokes while writing a character.[64]

All in all, the text of the *ML* seems to be a written practical instruction on how to draw letters and prepare one's writing utensils and it was originally locally transmitted from Khyung bo g.yu khri to his apprentices at the workshop. The terminological system developed by Khyung bo g.yu khri over the years of teaching calligraphy is systematized to a certain extent, but as in all naturally evolving terminologies the hierarchical relations between the most basic notions are not specified. It is no surprise that being a rare work on calligraphy of a professional calligrapher, the *ML* was acknowledged by different scholars and later reinterpreted as a fundamental theoretical work on Tibetan calligraphy.

Sa skya Paṇḍita, on the other hand, was just at the beginning of his scholastic career when he wrote the *TM*. The treatise was created in 1204—even before he took his full monastic ordination in 1209. In the colophon of the treatise, written in a somewhat humorous tone, he calls himself an *upāsaka,* a "Buddhist layman":

> Thus, having previously studied all objects of knowledge,
> Here the one who completely attained [discriminating] intellect,
> Glorious *upāsaka* Kun dga' rgyal mtshan,
> Compiled [this treatise] to increase the happiness of friends.[65]

At that time Kun dga' rgyal mtshan was forced to return to Sa skya Monastery because of the long illness of his father, where he became interested in grammar and music, which was unusual for a scholar of that period.[66]

Later Sa skya Paṇḍita became a part of the "neoconservative movement" that aimed to preserve the purity of the Indian Buddhist tradition.[67] Supporting this idea, he developed a concept of a perfect Buddhist scholar, who would not only have a correct understanding of the Teaching of the Buddha but would also be well versed in other sciences such as poetics, grammar, and fine arts, so that with his vast knowledge he would help other sentient beings. Similarly, in the *TM* Kun dga' rgyal mtshan presents an ideal of a musician who is

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[63] Gega Lama 1983 vol. 2: 58.
[64] As a famous calligrapher Lady Wei Shao wrote in circa 320 AD, "There should not be too many bones, veins or flesh in the hieroglyph" (Gaur 1985: 176).
[65] *de ltar shes bya kun la sngon sbyangs mthus/ / 'dir ni blo gros rnam par gsal thob ba/ / dpal ldan dge bsnyen kun dga' rgyal mtshan gyis/ / grogs po dga' ba spel phyir bkod pa yin/* (Sa skya Paṇḍita 1992–1993: 7a).
[66] Jackson 1987: 66.
[67] Davidson 2005: 375.

competent both in the theory of musical composition and the laws of song writing.

It is impossible today to find out if Kun dga' rgyal mtshan received any vocal training at Sa skya Monastery, but the analysis of his terminology proves that he at least was acquainted with the basic notions of Tibetan musical tradition as some of the terms used by him correlate with musical terminology of other musical works. For example, 'gyur ba "changing [tone]," 'khug "bending [tone]," 'phra "thin voice," lus kyi skyon "deficiency of the body," and other terms similar to the *TM*'s terminology occur in a treatise by Bkra shis rgya mtsho (14th–15th centuries) and, arguably, in a treatise by Klong rdol bla ma Ngag dbang blo bzang (1719–1805).[68] Mgo kar ba Bsod nams dbang po (17th century), the author of Sa skya's basic musical treatises, uses several similar categories like 'gyur and stod "high tone" (similar to the *TM*'s bstod pa "high [drawing]").[69] Furthermore, Ricardo Canzio points to some similarity of the *TM*'s terminology to the four types of musical melodies from Indian tradition (Skt. varṇa): sthāyī ("smooth sound"), arohī ("rising sound"), avarohī ("lowering sound") and sañcarī ("changing sound").[70]

When comparing the *TM*'s terminology with those of other Tibetan works on music, it becomes obvious that Kun dga' rgyal mtshan coined many specialized terms himself. The terms for two basic types of music (lhan cig skyes pa'i rol mo "vocal music" and rkyen gzhan las byung ba'i rol mo "instrumental music") are among the most important ones. At the same time, he did not use any Sanskrit musical terms, characteristic of Tibetan musical tradition.[71]

Although it is common for the Tibetan musical tradition to borrow terms from grammatical terminology, as for instance in dbyangs "melody" from the grammatical dbyangs "vowel,"[72] many researchers note in the *TM* the usage of grammatical terms that are uncommon for other musical treatises. For example, the four types of nga ro "sound" that coincide with the traditional characteristics of four basic vowels occur only in the *TM*: bsgreng ba "elevated" (characteristic of the vowel a), bkug pa "curved" (characteristic of the vowel e), bstod pa "high" (characteristic of the vowel o) and smad pa "low" (characteristic of the vowel u) respectively.[73]

Some specialized terms that seem very original were later used by

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[68]   Butsyk *et al.* 2018: 60–62.
[69]   Butsyk *et al.* 2018: 68.
[70]   Canzio 1978: 58.
[71]   For example, names of the seven basic degrees of a scale (Skt. ṣadja, ṛṣabha, gandhara, madhyama, pañcama, dhaivata).
[72]   Smirnova 2015: 115.
[73]   Ellingson 1979a: 387.

Kun dga' rgyal mtshan in his works on grammar. For example, terms *rkyang pa* "single" and *brtsegs pa* "layering" that denote different types of *bkug pa* "bending [tone]" were used in the work entitled "Head-Ornament of the Wise"[74] along with *'phul pa* "affixed" to designate the three basic types of phonemes depending on their position in a Tibetan word.[75]

Unlike other treatises and traditional works on music such as collections of chants (*dbyangs yig*) or instrumental music (*rol tshig, dung tshig*) and ritual manuals (*phyag len*), the *TM* does not cover the instrumental aspect of musical tradition.

Through the conducted analysis of the *TM*'s terminology and Sa skya Paṇḍita's background, along with the comparison to other musical treatises, it becomes evident that the *TM* does not reflect the Sa skya school's musical tradition, but Kun dga' rgyal mtshan's own views on vocal music. Using notions of Sa skya school's musical tradition and his knowledge in grammar and poetics as a foundation, Kun dga' rgyal mtshan, already an aspiring intellectual at the time, developed his own logical analysis of vocal ritual music as he would later do with other objects of knowledge like doctrine, grammar, and poetics.

All in all, Kun dga' rgyal mtshan wrote this treatise as an interested observer and not as a specialist in music. There was no need to explain and theorize an already existing practical tradition at Sa skya Monastery, and again, any musical training was done orally at the monastery's workshops by trained musicians and did not require any written theoretical manual.[76] It is no wonder then that even the followers of Sa skya for a long time were unfamiliar with the *TM*, not to mention professional musicians. Thus the *TM* did not receive much recognition among Tibetan scholars for its musicological value, but it can be without doubt considered one of the first theoretical works on Tibetan music.

5. Conclusion

The *Magical Lantern: An Encompassing Treatise on Writing and a Treatise on Pens* appears to be originally a didactic mnemonic instruction created by a professional calligrapher that later—outside of the teaching tradition—lent itself to reinterpretation as a theoretical treatise. At the same time, the *Treatise on Music* was created as a theoretical work from the very start, it was written by an amateur

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[74] *Mkhas pa'i kha rgyan*.
[75] Butsyk *et al.* 2018: 91–93.
[76] Canzio 1978: 7.

musician and an enthusiastic intellectual, who treated music as a means of perfecting oneself on the path of an ideal scholar and who described his own views on music rather than the existing tradition itself. As a result, the two treatises were treated differently throughout the course of history.

Regardless of the historical fates of these works, both of them fortunately survived to our days and nowadays both texts are rightfully held in esteem as valuable examples of written Tibetan literature with the help of which one can try to look into the history of Tibetan cultural heritage.

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