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Agnieszka Helman-Ważny, Liubov Kriakina,  
Alexander Zorin

**The First Tibetan Leaves Acquired  
by the St. Petersburg Academy of Sciences:  
Conservation Issues, Contents and Paper Analysis\***

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*Abstract:* The paper presents the first results of the study of 204 folios from the legendary Ablait monastery recently identified within the IOM, RAS Tibetan collection. The three main aspects touched upon are 1) the condition of the folios and the conservation treatment applied to make the study of their contents possible, 2) identification of texts that turned out to be fragments of an independent version of the Tibetan Buddhist canon, and 3) paper analysis.

*Key words:* conservation of Oriental texts, history of Tibetan paper, Tibetan *thing shog* manuscripts, Tibetan Buddhist Canon, Ablait monastery

In 2012–15, a number of rolled decorated folios were identified among the unprocessed materials held in the Tibetan collection of the IOM, RAS. These book leaves originated from the two Dzungar monasteries discovered by Russian soldiers along the Irtysh river in southern Siberia<sup>1</sup> in 1717–21. The study of their history<sup>2</sup> showed that some of them, with blue margins and gold letters, were acquired first, perhaps, in 1718 from the Sem Palat Monastery, while the greater portion of the leaves, with dark violet margins and silver and gold letters, were sent to the Russian capital by two members of the St. Petersburg Academy of Sciences, Gerhard Friedrich Müller (1705–1783) and Johann Georg Gmelin (1709–1755), from Ablait Monastery in 1734<sup>3</sup>.

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<sup>1</sup> It is now the territory of East Kazakhstan Province in the Republic of Kazakhstan.

<sup>2</sup> ZORIN forthcoming.

<sup>3</sup> The first batch of six leaves from the Ablait library was sent to St. Petersburg in 1721 and one of them must have been reproduced in Leipzig in 1722 ([MENCKE?] 1722) and then sent to Paris where É. and M. Fourmont attempted its translation (WALRAVENS 2008, 150–

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After all the calamities of the 1930s and 1940s, the folios were effectively lost within the Institute's huge Tibetan collection, especially after it was enlarged by several thousand texts brought to Leningrad from closed and destroyed Buryat Buddhist monasteries in the late 1930s. Later, during the 1960s and 1970s, the Tibetan collection was in the main sorted out by Margarita Vorobiova-Desiatovskaya, Lev Savitsky and Elena Ogneva but these materials remained among the scattered items until their re-discovery in 2012. They were found in several locations. Most were being kept rolled up, while the remainder were arranged in three piles placed between sheets of thick cardboard, possibly by Lev Savitsky, the curator of the Tibetan collection in the years 1969–2004. Unfortunately, this measure proved far from sufficient to return the damaged leaves to a usable condition. In fact, all the leaves, both rolled and slightly flattened, needed urgent conservation due to numerous defects and great fragility. This work started in 2014.

The paper of the folios turned out to be very dry and brittle; their edges, being the most vulnerable parts, were especially fragile and seriously deformed from the rolling; the numerous cracks, small losses of paper, flaws and dirty spots, through and incomplete splits, flaking of golden paint and ink layers, erosions of text, faded paper dye along the outer part of leaves, breaks and exfoliations in the paper were clearly visible, the traces of the holes made by the larva of bark beetles were noticed.

During initial conservation treatment, first a general dry cleaning of the paper, consisting of the removal of dust with a soft brush and of bird droppings with a scalpel, was undertaken. The most seriously soiled places were cleaned with a non-abrasive rubber eraser and a special *Wishab* sponge. Spots of pastose flows were cleaned with a cotton wool tampon barely moistened with a 1:1 water-alcohol solution (Pl. 1).

A test on dye flow by the application method gave a positive result, showing that the folios would be harmed if processed with water. We then employed a method of indirect moistening using special membranous materials such as *Gore-tex* and *Bondina*, which are recommended for the delicate moistening of paper objects sensitive to water. This method produced good results. Moreover, it allowed us to return the lost hydro component to the paper pulp, making it more flexible, thanks to which paper could be flattened more evenly, without any new losses or splits. Each folio was put on technical textile and covered with a sheet of *Gore-tex*, several

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152). The other five folios may be at the British Library, under the shelf number Sloane 2837. They could have been left in London by J.D. Schumacher (1690–1761) in early 1722 (SCHIEFNER 1864, 44–45) but this still needs to be ascertained.

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Pl. 1. One of the fragments: before and after conservation treatment

sheets of moistened filter paper, a layer of polyester film, and a layer of plywood beneath a weight. The level of moisturizing, with liquid from the filter paper, remained under control. After the folios were flattened and moistened, they were kept between two layers of technical textiles to complete the drying process and remove deformation.

To restore aesthetic unity and structural integrity to the leaves the special paper inserts and reinforcements were applied together with wheat paste (3% to 7%). Lost parts were replaced and tears reinforced with paper produced in Japan that was then painted to match the original colours with water-soluble dyes. The fragments of the most damaged folios were consolidated, but not reconstructed to original size.

Along with conservation treatment the folios were all numbered and contents of each folio identified (the *RKTS* and, in few cases, *TBRC* search tools were used).<sup>4</sup> There are 237 unique folios all together. Most of them are complete but a number were found to be in fragments, some rather small. The folios consist of two groups:

1) 33 ff. on blue paper with golden writing originated from Sem Palat. They consist of two subgroups of folios<sup>5</sup> belonging to two different copies of a four-volume set of the *Prajñāpāramitā Sūtra* in 25,000 stanzas;

2) 204 ff. on paper with dark violet margins and silver or/and gold writings originated from Ablait. They belong to various volumes from the set of an unknown edition of the Tibetan Buddhist Canon.<sup>6</sup> A few other leaves found in various European repositories<sup>7</sup> belong to this same work.

The following analysis deals only with the Ablait materials although some aspects of it are true for both groups of texts.

The Ablait library certainly had the entire first part of the Tibetan Buddhist Canon, the *Kagyur*. The second part, the *Tengyur*, could also have been present there, at least partially. The bulk of the 204 ff. kept at the IOM, RAS are fragments of various texts from the six divisions of *Kagyur*:

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<sup>4</sup> Marginalia to the left of the text on the recto contain the numbers of the volumes (indicated with Tibetan letters) and folio numbers, no brief names of the sections or other titles are provided.

<sup>5</sup> The shelf numbers at the IOM, RAS — Tib.957 and Tib.958.

<sup>6</sup> The shelf number at the IOM, RAS is Tib.959.

<sup>7</sup> The following are known so far: National Library of Russia, St. Petersburg, 3 items — two are found under No. 857 in DORN 1852, the third in the fund 390, inv. 1, unit 80, all three identified by A. Zorin in 2014; British Library, London, 5 items — Sloane 2837a-e, information provided by S. van Schaik; Herzog August Library, Wolfenbüttel, Germany, 2 items — Cod. Guelf. 9 Extra v IV and V, see HEISSIG 1979, KNÜPPEL 2014; Library of Kassel University, 1 item — Ms. orient. Anhang 4 [1, see KNÜPPEL 2014; Linköping City Library, 1 item — Ol 4, information provided by M. von Wachenfeldt; Berlin State Library, 1 item, information provided by K.V. Alekseev and A.A. Turanskaya. There are also eight Tibetan and Mongolian folios in the National Library of France, Paris, including the most famous one reproduced in [MENCKE?] 1722, see ABEL-RÉMUSAT 1820, 332, n. 1; MXT, 41, No. 464.

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- 1) *Vinaya* — 60 ff.<sup>8</sup>
- 2) *Prajñāpāramitā* — 46 ff.<sup>9</sup>
- 3) *Avataṃsaka* — 6 ff.<sup>10</sup>
- 4) *Ratnakūṭa* — 13 ff.<sup>11</sup>
- 5) *Sūtra* — 33 ff.
- 6) *Tantra* — 41 ff.

The comparison of the order of texts in the Ablait *Kagyur Sūtra* and *Tantra* sections with that in other editions shows no exact or close parallels (see the Appendix). It seems that there are similarities with the latest Lhasa edition (1934), especially in *Tantra* section, yet the difference is still too great. Apparently, we are dealing here with an independent version of the canon.<sup>12</sup>

The remaining five folios from three different volumes seem to belong to a *Tengyur*. The following texts are represented:

- 1) *Rang gi lta ba'i 'dod pa mdor bstan pa yongs su brtag pa zhes bya ba* (vol. ka?) by Mañjuśrīvarman, from the *Rgyud 'grel* section in the later xylographic editions of the *Tengyur*,
- 2) *Sa bcu pa'i rnam par bshad pa* (2 ff., vol. ma) by Vasubandhu, from the *Mdo 'grel* section;
- 3) *Rgyu gdags pa* (vol. za) ascribed to Maudgalyāyana, from the *Mngon pa* section;
- 4) *'Jig rten gzhag pa* (vol. za) ascribed to Maudgalyāyana, from the *Mngon pa* section.

The *Kagyur* editions of the Them spangs ma group also contain *Rgyu gdags pa* and *'Jig rten gzhag pa* but the Ablait *Kagyur* seems to be very different from them, hence there are more chances they were a part of the

<sup>8</sup> The following texts are represented: *'Dul ba gzhi* (vols. ka-nga), *'Dul ba rnam par 'byed pa* (vols. ca-nya), *Dge slong ma'i 'dul ba rnam par 'byed pa* (vol. nya), *'Dul ba phran tshegs kyi gzhi* (vols. ta, tha), *'Dul ba gzhung dam pa* (vol. da, a), *'Dul ba gzhung bla ma* (vol. a).

<sup>9</sup> The following texts are represented: *Prajñāpāramitā Sūtra in 100,000 stanzas* (vols. ka-da), *Prajñāpāramitā Sūtra in 25,000 stanzas* (vol. kha), *Prajñāpāramitā Sūtra in 18,000 stanzas* (vols. ka, kha), *'Phags pa rab kyi rtsal gyis rnam par gnong pas zhus pa shes rab kyi pha rol tu phyin pa bstan pa* (vol. pha?).

<sup>10</sup> Folios from vols. kha, ga(?), nga and ca are found.

<sup>11</sup> Folios from vols. ka, kha, ga and nga are found.

<sup>12</sup> All known editions of the *Kagyur* are divided into five groups: Tshal pa group, Them spangs ma group, Mustang group (scarcely represented), mixed and independent editions. We would suggest that the Ablait edition can be included in the last category, joining the Phugbrag, Bhatang, Dolpo and Tawang *Kagyurs* (for details check the RKTS web resource). A deeper textual study of the fragments of the Ablait *Kagyur* is certainly needed to back up this statement.

Ablaikit Tengyur. In any case, the first two texts in the list can hardly be expected to be found in any edition of the Kagyur so at least some volumes from a Tengyur must have been kept at Ablaikit.<sup>13</sup>

The technique of writing in gold or/and silver on a decorated background employed in the preserved manuscripts from Ablaikit monastery suggests that they belong to the deluxe editions of canonical texts called in Tibetan *thing shog* (referring to blue-black paper). Such luxurious productions would often be commissioned by a patron for a family or shrine, or as a gift to a monastery. The most common texts chosen for this technique were the *Prajñāpāramitā* Sūtras, but often entire *Kagyur* sets were produced. The distinct practice of writing Tibetan manuscripts in gold on a dark background and embellishing them with precious stones began during the period known as the Tibetan Renaissance (spanning the 10th to 13th cc.), but this technique was known earlier in other book cultures as well. During the production of such decorative manuscripts, sheets of paper were cut down to the appropriate size, glued in a number of layers in order to create an adequately thick leaf, then processed on the surface to provide a good background for writing and painting. After the general layout of the page was planned (e.g., number of text lines, frames/borders, circles, initial signs), the page was lightly ruled with a sharp, pointed stick or wooden colouring stick, and the scribe set to work with an ink-pot and reed pen to execute the text.

Writing in gold involved the use of powdered gold mixed with a binding material to create an ink that was usually burnished when dry. The traditional production of *thing shog* paper involves a range of specific products, such as paper (*shog bu*), brains (*glad pa*), yak-hide glue (*phing*) and soot.<sup>14</sup> However, we do not know when and where exactly Tibetans started to use such peculiar ingredients. In fact, there are many varieties of both materials and techniques used for this luxurious type of manuscript, which are preserved within Tibetan books written in gold in many library and museum collections. According to Jim Canary, who has recently made a study of the Tibetan craftsmen's technique, for preparing the black mixture a paste of yak, sheep or goat brains with very fine black powdered soot and a small amount of cooked hide glue is kneaded.<sup>15</sup> He points to the fact that if there is too much brain material the paper will have an oiliness that will resist the writing and can also develop saponification problems, resulting in a white,

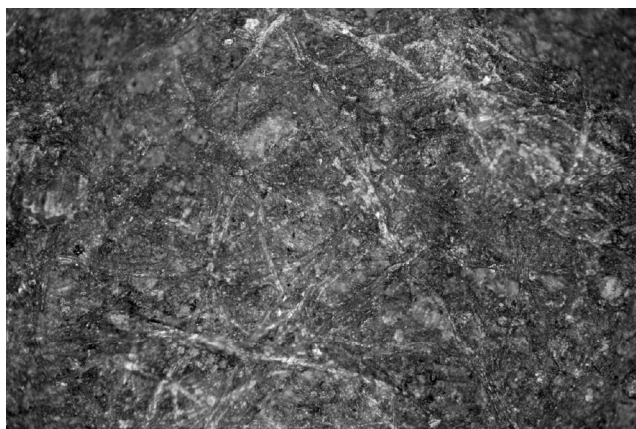
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<sup>13</sup> One of the leaves (from vol. pa) kept at the British Library with the shelf number Sloane 2837e may also belong to the Tengyur but this has yet to be checked.

<sup>14</sup> CANARY 2014, 109.

<sup>15</sup> CANARY 2014, 109.

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Pl. 2. Surface of paper painted with diluted dark violet or brown paint in 200× magnification (sample 1).



Pl. 3. F. 2 recto from the 4th volume of the *Vinaya* section, Ablakit Kagyur (after initial conservation)

soapy bloom on the surface. This mixture is painted on the surface and left to dry. Then the surface is burnished (*dbur ba*) with a smooth piece of conch shell or a *gzi* stone. Both the specific ingredients and burnishing process turn the matte surface into a beautiful shining support for writing in gold.

The Ablakit folios are of large format, about 19×62.5 (text area 14×57) cm. All have a black part in the central area of each page, intended as a foundation for the text, with blue or black coloured borders. Some of the folios have been burnished like lacquer sheets, which is a distinguishing feature of this technique. All of them have dark violet or brownish borders, probably painted on the surface with diluted ink with the possible addition of brown paint (Pl. 2).

Some folios have small “clips” — narrow strips of brownish red paper which join several paper layers together, having both a decorative and structural function. Thicker folios with this feature, often placed at the beginning of the book or book section, serve as a kind of inner cover (and title page).<sup>16</sup> For example, folio 2 from one of the volumes of the *Vinaya* section is made up of three layers of thick paper and has a dark blue passe-partout that is not glued to the other layers along its inner perimeter. It is clear, then, that in this case the “clips” are a structural element fastening the layers of the thick leaf together (Pl. 3). The rectangular frame, composed of red and black lines edged with thin golden lines, is a purely decorative element here. On the right side, beneath the passe-partout, there is a fragment of untwisted yellow silk thread. On the verso side of the folio, we can see rather careless traces of the brush with which the black background for the text was applied. Some folios have appliqués of white or grey paper bearing *stūpa* images painted bright yellow, lemon red, bright vermillion red or pink.

Scribal base lines can be dimly seen on some folios. The binding places, symbolic rather than actual, are marked with characteristic double circles. This is a common feature of Tibetan manuscript layout: circles located exactly in the places where holes would have been pierced for stringing pages together in the Indian *pustaka*. These circles were primary to the layout of the text. First, frames, side margins, and circles were sketched, and then text was inscribed. These circles are found in many Tibetan books such as the Tibetan manuscripts from Dunhuang, the Tibetan *Sel dkar* Kagyur from the British Library, and gold manuscripts in the Columbia University Library.<sup>17</sup> There are a variety of forms, such as one or two circular shapes sketched by a sharp tool, often redrawn multicoloured with gold, red or silver ink. Some of these circles are also richly decorated with ornaments and even gems. In rare instances these circles can even be found in early prints from Central Tibet.

The materials composing ink and paints require further analysis, but we can assume that lamp-black was used here. Black ink in Tibet is usually made of carbonized plants or oil soot with yak hide glue. The most essential ingredient for Tibetan black ink (*nagtsha*, *snag tsha*) is the soot of burned pine trees (*Pinus wallichiana*) or sometimes the soot from burning oil (*num*, *snum*). Traditionally, a boiled solution of animal glue allowed to cool and congeal was added to soot.<sup>18</sup> This solution was repeatedly pressed in a

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<sup>16</sup> PAKHOUTOVA and HELMAN-WAŻNY 2012, 125.

<sup>17</sup> HELMAN-WAŻNY 2014, 86–88.

<sup>18</sup> RICCIARDI and PALLIPURATH 2014, 105.

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leather bag, and then water was gradually added. After the solution had been mixed and dried, it was ground to a powder, sometimes with the addition of mica.<sup>19</sup> However, it could also contain other organic components that modified its properties to meet particular needs. Various recipes for its preparation include soot from burnt resinous wood or butter lamps, other pigments, or metal as the ink's main components, with the possible admixture of gum, honey, borax or, for some special occasion, other unusual and extravagant materials. Soot would be collected from the interiors of stacked bottomless clay pots after selected components were burned at the bottom of the vessels.

Paper analysis was performed on one sample that cannot be ascribed to any particular folio but was taken from numerous tiny fragments easily separating from the fragile edges. We assume that this analysis can be taken to apply to all the Ablakit folios, given their evident close similarity, but to be sure some more tests of random samples are to be made later.

The paper sample No. 1 shows the presence of two types of fibre belonging to the Thymelaeaceae family: *Edgeworthia/Daphne* sp. mixed with a small addition of *Stellera chamaejasme* fibres. Fibres of the first type were generally narrower and more rigid. The broad portions were not associated with cross-markings, which occurred densely and were often visible as a 'v' or zigzag shape in polarized light. Dislocations and irregularities in the fibre-thick walls and narrow-lumens stained pinkish with Herzberg were clearly visible. This type may be one of two species — *Edgeworthia* sp. or *Daphne* sp., both belonging to the Thymelaeaceae family. It was very difficult to tell these two species apart, but they can at least be distinguished from the second type by observing the shape and size of fibres. Both species were used as the basic materials in papers originating from the foothills of the Himalayas. Fibres of the second type were wider, flat, and presented a very wide lumen and narrow fibre walls. (Pl. 4) Ribbon-like fibre placement and significant irregularities in fibre length make it possible to identify this type as *Stellera chamaejasme*, which is distinctive among the range of fibres found in historical papers and can be clearly differentiated from *Daphne* and *Edgeworthia* despite the fact that all three plants belong to the Thymelaeaceae family. (Pl. 5)

The fibre composition of the sample examined suggests that this paper was produced in Tibet. Similarly composed original Tibetan paper was made mainly from the phloem of shrubs belonging to the *Daphne* and *Edgeworthia*

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<sup>19</sup> CÜPPERS 1989.

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Pl. 4. *Edgeworthia/Daphne* sp. fibres with addition of *Stellera chameejasme* fibres stained olive-grey/greenish with Herzberg at 100× magnification.



Pl. 5. *Edgeworthia/Daphne* sp. and *Stellera chameejasme* fibres (on the left) stained olive-grey/greenish with Herzberg at 400× magnification. The narrow lumen with some broad portions in the *Edgeworthia/Daphne* fibre (in the middle) and very wide lumen and thin fibre walls on the *Stellera* fibre on the left are clearly visible in the above photograph.

species (*shog shing* in Tibetan) by the 9th century and the roots of the *Stellera chamaejasme* species (*re lcag pa* in Tibetan) by the 10th century in Central Tibet. We cannot date the folios from Ablakit,<sup>20</sup> however, we can

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<sup>20</sup> It is clear they must have been produced before 1671 when Ablakit was left by its founder, the Dzungar chieftain Ablai, and it was destined to oblivion. We can also speculate that the canon could be obtained in connection with the visit of the famous Oirat teacher and translator Zaya Pandita (1599–1662) who consecrated Ablakit in 1657 (BORODAEV and KONTEV 1999).

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recognize some general indications on the regional origin of paper production, since the usage of particular raw materials is strongly dependent on geographical region. The altitude range of *Daphne* sp. extends to 3,600 m above sea level, while *Stellera* sp. is widely distributed across the Himalayan range at altitudes of 2,700 to 4,500 m. Additionally *Daphne* plants need much more moisture than *Stellera*. Thus, these two species very rarely grow in the same habitat. Preliminary research shows that the *Stellera* root fibres are confirmed as a dominant component in manuscripts from both Central and Western Tibet. However, we should undertake further research to see if other features of the Ablait leaves correspond to their paper support.

The main conclusions of our research can be listed as follows.

In spite of high fragility and numerous defects of the manuscripts that were kept for about three centuries without any special treatment, initial conservation using the method of remote moistening proved rather effective in returning them to academic and cultural spheres.

The 204 manuscripts folios from Ablait monastery are fragments from various volumes of a set of the Tibetan Buddhist Canon. The bulk of them, 199 ff., represent an independent edition of the Kagyur, while the other five (or at least three) indicate that an entire Tengyur, or some volumes of one, was also kept at Ablait.

The manuscripts belong to the deluxe editions of canonical texts called in Tibetan *thing shog* (referring to blue-black paper) and so they must have been produced to a special commission from some patron who could finance such a costly project.

The paper sample shows the presence of two types of Thymelaeaceae family fibres: *Edgeworthia/Daphne* sp. mixed with a small amount of *Stellera chamaejasme* fibres. This supports a hypothesis of a Central or Western Tibetan origin for the manuscripts.

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### Electronic resources

- RKTS: Resources for Kanjur and Tanjur Studies; <https://www.istb.univie.ac.at/kanjur/xml3/xml/>
- TBRC: Tibetan Buddhist Research Center; <http://www.tbrc.org>
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## Appendix

To compare the structure of the Ablaitik Kagyur, which can only be reconstructed in a very limited way due to the small number of folios known, we compiled a list of concordances between the Ablaitik manuscripts and all the Kagyur editions represented on the *RKTS* web resource. We did this only for the *Sūtra* and *Tantra* sections since the other sections are fairly standard and do not vary much in structure.

The two tables presented below are reduced versions of the full ones since the order of the texts in the two basic groups proved almost identical while the mixed Lhasa and Narthang editions also have much in common. Two independent editions, Phugbrag and Dolpo, turned out to be totally different from the Ablaitik Kagyur so their data are omitted here. All the other editions seem to be too scarce to be included, either.

The first column of the tables contains the access numbers at the IOM, RAS (from Tib. 959, No. 113 to Tib. 959, No. 174 and from Tib. 959, No. 193 to Tib. 959, No. 204<sup>21</sup>), the second the folio marginalia if legible, the third the standard Tibetan titles as provided by the *RKTS*. In addition to the manuscripts kept at the IOM, RAS we used the texts of three leaves from the same set found at other libraries in Europe (see footnotes). Those entries are marked with italics.

### *Sūtra Section*

<b>Tib.959 No.</b>	<b>Folio No.</b>	<b>Tibetan title</b>	<b>Vol. in Tshal pa group</b>	<b>Vol. in Them spangs ma group</b>	<b>Vol. in Lhasa / Narthang eds.</b>
113–115 193–197	Ka, 295 Ka, 306 Ka, 413 Ka, 19 Ka, 122 Ka, 183 Ka, 268	'Phags pa bskal pa bzang po zhes bya ba theg pa chen po'i mdo	ka	ka	ka / ka
197	Kha, 11	'Phags pa rgya cher rol pa zhes bya ba theg pa chen po'i mdo	kha	kha	kha / kha
198	Ga?, 19	'Phags pa lang kar gshegs pa'i theg pa chen po'i mdo	ca	da	ca / ca
116	Nga, 207	'Phags pa khye'u snang ba bsam gyis mi khyab pas bstan pa zhes bya ba'i chos kyi nam grangs	nga	ta	nga / nga
117	?, 1(?)37	'Phags pa dgongs pa nges par 'grel pa zhes bya ba theg pa chen po'i mdo	ca	na	ca / ca
118	Ca, 325	'Phags pa don rgyas pa zhes bya ba'i chos kyi nam grangs	sa	dza	la / la

<sup>21</sup> Two rolls that contained 25 ff. were found in 2015, after the previously found folios had been already given their access numbers.

199	Cha, 36	'Phags pa khye'u bzhi'i ting nge 'dzin ces bya ba theg pa chen po'i mdo	na	nya	tha / tha
119	Cha, 221	'Phags pa las kyi sgrib pa rgyun gcod pa zhes bya ba theg pa chen po'i mdo	tsha	nya	ma / ma
120	Cha, 259	'Phags pa klu'i rgyal po rgya mtshos zhush pa zhes bya ba theg pa chen po'i mdo	pha	ba	na / na
121–122	Nya, 207 Nya, 249	'Phags pa dam pa'i chos dran pa nye bar gzhang pa	ya	ki	za / za
123	Na, 4	'Phags pa blo gros rgya mtshos zhush ba zhes bya ba theg pa chen po'i mdo	pha	ba	na / na
124	Na, 256	'Phags pa sangs rgyas kyi dbu rgyan zhes bya ba theg pa chen po'i mdo chos kyi rnam grangs chen po	ya	cha	za / za
125–126	Tsa, 57 Tsa, 67	'Phags pa lang kar gshegs pa'i theg pa chen po'i mdo 'Phags pa lang kar gshegs pa'i theg pa chen po'i mdo	ca	da	ca / ca
200	Tsa, 280	ltung ba sde lnga'i dge ba dang mi dge ba'i 'bras bu brtag pa'i mdo	sa	chi	la / la
127	Zha, 198	'Phags pa 'dus pa chen po rin po che tog gi gzungs zhes bya ba theg pa chen po'i mdo	na	ra	tha / tha
128	'A, 115	Thabs mkhas pa chen po sangs rgyas drin lan bsab pa'i mdo	aḥ	wa	a / a
129–130	Ya, 162 Ra, 9	'Phags pa yongs su mya ngan las 'das pa chen po'i mdo	nya	ka	ka <sup>22</sup>
131–132	La, 279 La, 282	Las brgya tham pa	ha	ha	sha / sha
133–134	A, 16 A, 27	'Phags pa phung po gsum pa zhes bya ba theg pa chen po'i mdo	ya	cha	za / za
201	A, 232	'Phags pa chos thams cad kyi rang bzhin mnyam pa nyid rnam par spros pa ting nge 'dzin gyi rgyal po zhes bya ba theg pa chen po'i mdo	da	ja	ta / ta
202	?	'Phags pa sangs rgyas bgro ba zhes bya ba theg pa chen po'i mdo	dza	cha	a / a
135	?	Tshangs pa'i dra ba'i mdo	aḥ	cha	a / a

<sup>22</sup> Here and in the Them spangs ma group this long Sūtra is presented as a separate section briefly titled *Myang 'das*.

## Tantra Section

Tib.959 No.	Folio No.	Tibetan title	Vol. in Tshal pa group	Vol. in Them spangs ma group	Vol. in Lhasa / Narthang eds.
136	Ka, 192	Dpal sangs rgyas thams cad dang mnyam par sbyor ba mkha' 'gro ma sgyu ma bde ba'i mchog ces bya ba'i rgyud bla ma	ka	ka (var. nga)	ka / ka
203	Ka, 230	Dpal sangs rgyas thams cad dang mnyam par sbyor ba mkha' 'gro ma sgyu ma bde ba'i mchog ces bya ba'i rgyud bla ma	ka	ka (var. nga)	ka / ka
137	Kha, 96	Rgyud kyi rgyal po chen po dpal rdo rje mkha' 'gro zhes bya ba	kha	ka (var. kha)	kha / kha
138	Ga, 84	Yang dag par sbyor ba zhes bya ba'i rgyud chen po	ga	ga (var. kha)	ga / ga
139	Ca, 111	Dgongs pa lung bstan pa zhes bya ba'i rgyud	ca	ca	ca / ca
140	Ga, 170	Dpal stobs po che'i rgyud kyi rgyal po	nga (var. ga)	ka (var. kha)	—
204	Ca, 142	Rnal 'byor chen po'i rgyud dpal rdo rje phreng ba mngon par brjod pa rgyud thams cad kyi snying po gsang ba nam par phye ba zhes bya ba	ca	ca	ca / ca
141–143	Cha, 37 Cha, 43 Cha, 45	Rgyud kyi rgyal po chen po sgyu 'phrul dra ba zhes bya ba	ja	cha	ca / cha
144	Cha, 123	Dpal gshin rje'i gshed dmar po zhes bya ba'i rgyud kyi rgyal po	ja	cha	ca / ja
145–147	Cha, 134 Cha, 148 Cha, 152	Dpal ldan gshin rje gshed dmar po'i rgyud kyi rgyal po zhes bya ba	—	cha	ca / —
148–150	Ja, 22 Ja, 105 Ja, 127	Gsang ba rnal 'byor chen po'i rgyud rdo rje rtse mo	nya	ja	cha / nya
151	Nya, 110	'Phags pa gsang ba nor bu thig le zhes bya ba'i mdo	tha	ta	nya / ta
152–153	Nya, 128 Nya, 135	De bzhin gshegs pa thams cad kyi sku dang gsung dang thugs kyi gsang ba rgyan gyi bkod pa zhes bya ba'i rgyud kyi rgyal po	ta (var. tha)	ta	ja / nya
	<i>Nya, ?</i> <sup>23</sup> <i>Nya, 188</i> <sup>24</sup>	<i>Rnam par snang mdzad chen po mngon par rdzogs par byang chub pa rnam par sprul ba byin gyis rlob pa shin tu rgyas pa mdo sde'i dbang po rgyal po zhes bya ba'i chos kyi rnam grangs</i>	tha	ta	nya / ta

<sup>23</sup> Cod. Guelf. 9 Extra v IV.<sup>24</sup> [Mencke?] 1722.

154–155	Nya, 389 Nya, 421	'Phags pa lag na rdo rje dbang bskur ba'i rgyud chen po	da	tha	ta / tha
156–157	Ta, 141 Ta, 147	Dam tshig gsum bkod pa'i rgyal po zhes bya ba'i rgyud	da	tha	ta / tha
158	Ta, 208	Dpa' bo gcig bu grub pa zhes bya ba'i rgyud kyi rgyal po chen po	pa	da	tha / da
159	Tha, 155	'Phags pa 'jam dpal gyi rtsa ba'i rgyud	na	da	tha / da
160	Tha, 250	'Phags pa gser 'od dam pa mchog tu rnam par rgyal ba'i mdo sde'i rgyal po zhes bya ba theg pa chen po'i mdo	pa	na	da / na
161–164	Da, ? Da, 68 Da, 91 Da, 96	'Phagspagser 'oddampamdosde'idbangpo'irgyalpoz hesbyabathegpachenpo'imdo	pa	na	da / na
	Da, 118 <sup>25</sup>	<i>Kun nas sgor 'jug pa'i 'od zer gtsug tor dri ma med par snang ba de bzhin gshegs pa thams cad kyi snying po dang dam tshig la rnam par lta ba zhes bya ba'i gzungs</i>	pha	pa	na / pa
165	Da, 286	'Phags pa de bzhin gshegs pa thams cad kyi gtsug tor nas byung ba gdugs dkar mo can zhes bya ba gzhan gyis mi thub ma phyr zlog pa'i rig sngags kyi rgyal mo chen mo	pha	pa	na / pa
166	Da, 332– 333	'Phags pa 'od zer dri ma med pa rnam par dag pa'i 'od ces bya ba'i gzungs	pha	pa	na / pa
167	Na, 261	'Phags pa spyang ras gzigs dbang phyug gi rtsa ba'i rgyud kyi rgyal po pad ma dra ba zhes bya ba	ba	pha	pa / pha
168	Pa, 285	'Phags pa don yod pa'i zhags pa'i cho ga zhib mo'i rgyal po	ma	ba	pha / ba ( 'og)
169	?, 106	'Phags pa rig pa mchog gi rgyud chen po	tsa (var. dza)	tsa	ba / ma
170	Pha, 258	Ral pa gyen brdzes kyi rtog pa chen po byang chub sems dpa' chen po'i rnam par 'phrul pa le'u rab 'byams las bcom ldan 'das ma 'phags ma sgröl ma'i rtsa ba'i rtog pa zhes bya ba	—	ma	tsa
171	A, 94	1. Rdo rje mchu zhes bya ba klu'i dam tshig 2. Rdo rje gnam lcags mchu zhes bya ba'i gzungs	tsha (var. wa)	tsha	ma / ma
172	?, ?8	Dpal rdo rje snying po rgyan ces bya ba'i rgyud kyi rgyal po chen po	tha	nya	nya / ta
173	?	Dpal ye shes phreng ba'i rgyud kyi rgyal po	nga (var. ga)	ga (var. kha)	— / —
174	?	Gnod sbyin nor bu bzang po'i rtog pa	tsha (var. wa)	tsha	tsha / tsha

<sup>25</sup> Sloane 2837d.