A Codicological Description of the Georgian Lectionary at Graz University Library

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The University of Graz houses five Georgian manuscripts that come from the Monastery of St Catherine on Mount Sinai (Ms 2058/1-5). The manuscript that is the subject of this paper is Ms 2058/1 that forms part of this collection. There is clear bibliographic evidence that 2058/1 was still at the Monastery of St Catherine in 1888.[1] The story goes that a few years later it was sold on an antique market in Cairo where it was acquired by the Austrian artist, Alfons Leopold Mielich (1863–1929). Through Mielich's paintings one could see that the artist must have been familiar with art dealers in the Egyptian metropolis. Paintings such as the "Carpet and pottery dealer" show how the artist vividly captured life on the market in Cairo. With his interest in painting antique dealers, it is somehow not surprising that he may have also had an interest in old manuscripts.

In 1897 the Austrian linguist Hugo Schuchardt (1842–1929), who was then working at the University of Graz, had bought the manuscript from the artist. This is documented through correspondence between them.[2] It appears that Mielich was therefore the middleman between the Cairo antique dealer and the professor in Graz. Upon his death in 1929, Schuchardt left the Georgian manuscript in his will to the University of Graz together with his entire library. He had also acquired and bequeathed to the University of Graz the other four Georgian manuscripts.

Ms 2058/1 is a lectionary composed of 27 leaves with uninterrupted text but with missing parts at the beginning and the end. According to the literature the first folio is found in Paris at the Bibliothèque nationale de France (as manuscript géorg. 30)[3] and the last one, which includes a colophon by Ioane Zosime and a date – 983 – with information saying that it was bound by him the third time, in the Mingana Collection at the Selly Oak College in Birmingham (as Mingana Georg. 7).[4]

The text is written in *asomtavruli* majuscules (cf. Fig. 1) and bears similarities with the oldest known Georgian inscriptions in the Cathedral of Bolnisi (ca. 494 CE) and of Jvari near Mtskheta (ca. 595–605 CE).[5] The Graz lectionary is a unique *khanmeti* manuscript which means that it contains the archaic verb prefix *x-* (*khan*) that has been erased in several places throughout the text, presumably at a later stage when the prefix was no longer in use (cf. Fig. 2). Jost Gippert in collaboration with a group of Georgian scholars published the new readings of the text that clearly indicate these erasures. I detected at least seven erasures in addition to the 105 already

[1] The manuscript was described as no. 9 in Aleksandre Tsagareli's *Catalogue* of 1883 (Tsagareli 1888: 199).
[2] See Renhart 2015: 13–14 and the collection of eleven letters written from Mielich to Schuchardt on https://gams.uni-graz.at/search/gsearch?queryAsAnd=&dc.creatorAsPhrase=Mielich%2C+Alphons+Leopold&dc.contributorAsPhrase=&dc.coverageAsPhrase=&dc.date=&textlang=&dc.subjectAsAnd=&hitPageSize=10&hitPageStart=1&pid=hsaletter&locale=en&search=advanced&x2=https%3A%2F%2Fgams.uni-graz.at%2Fhsa%2Fhsa-search.xsl. For a Georgian translation of these and other relevant letters cf. Imnaishvili 2004: 14–46 (here: 19–43).
[3] See Outtier 1972; for images cf. https://gallica.bnf.fr/ark:/12148/btv1b525149727/f9.item.
[4] See Garitte 1960: 254–257; Chkhikvadze et al. 2018: 57–58 and 221–222; and Imnaishvili 1996: 120.
[5] See Shanidze 1944: 029.

found, now totalling to 112 erasures of the prefix. Owing to its palaeographic features and to this archaic linguistic presence, the manuscript has been dated to the 7th century.

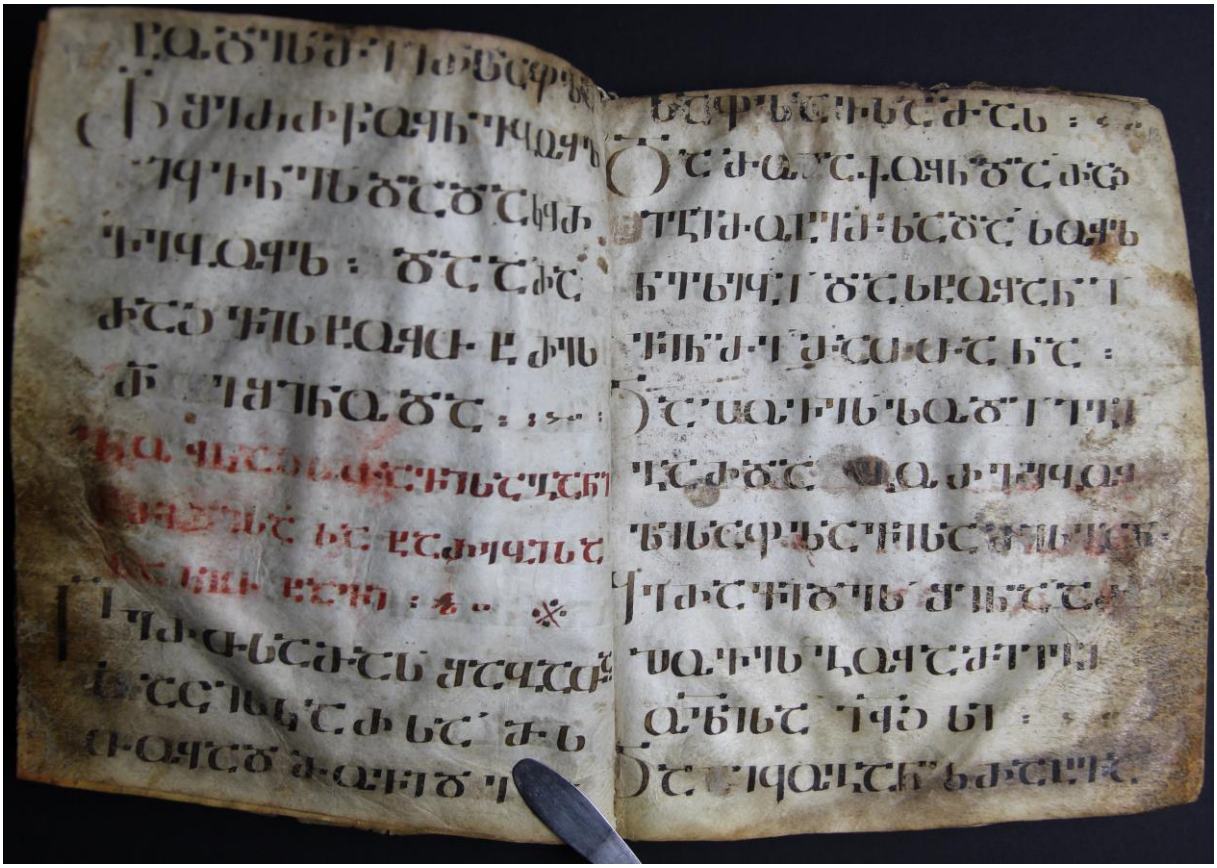

Fig. 1: 2058/1, fols. 12v–13r

2058/1 contains the office readings for Holy Saturday and Easter, vespers for Easter and the Easter Triodion. All readings are from the New Testament, which indicates that a basic and simplified type of lectionary is being used without the complexities of including Old Testament readings. According to Shanidze, who wrote about 2058/1 in most detail, it reflects the more ancient practice of the Jerusalem Church, therefore placing this manuscript within an archaic time period.[6]

Fig. 2: 2058/1, fol. 11r, line 9 with erased *khan*

1. The codicology of Ms 2058/1

There is no doubt that this manuscript presents a codicological challenge. It is complex, heavily glued and damaged, and has multiple sewing routes making it difficult to understand.

[6] See Shanidze 1944: 030.

2058/1 is made of parchment, probably a mixture of sheep and goat skin. Sheep skin tends to be yellow on the hairside and in a pale cream-grey on the fleshside. Goat skin, on the other hand, tends to be greyer on the hairside. In the last folios we can see a distinct change of surface characteristics and skin colour from sheep to goat.[7] Much of the texture of the manuscript has otherwise been lost from centuries of handling, and that makes it difficult to identify the hair pattern. But judging from its Sinaitic provenance, one is drawn towards considering sheep and goat skin as probable substrates for writing. The Sinai Peninsula till today is largely sheep and goat, (and camel) territory. It has probably very little changed since the first millennium.[8]

It is clear that the manuscript was sewn several times. The edges were cropped and reshaped so that, when the leaves were regrouped for sewing, they were not realigned in exactly the same way. The ruling hardly ever aligns, making it tricky to make sense of how the folios were prepared, grouped and sewn. This also makes it difficult to pair bifolios as one would do with manuscripts from more recent centuries. Additionally, the spine has been heavily glued over the centuries making it problematic to see the spine folds from the head. Fortunately, the tail end of the textblock provides some indication of the quire structure.

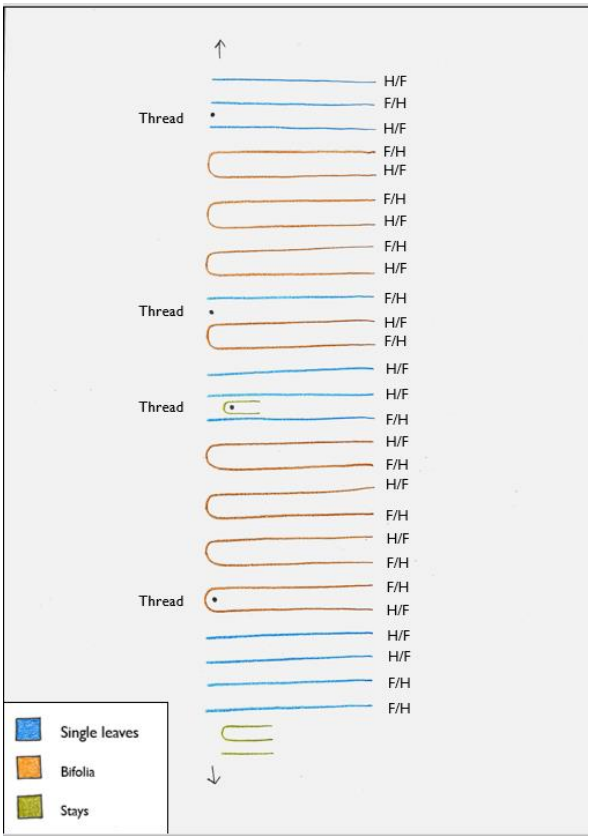

Fig. 3: Textblock structure showing hair and flesh sides

The system that was used to understand the layout was by firstly figuring out the hair and flesh sides of each folio. The hair sides are always yellower while the flesh sides are always whiter and less able to absorb ink, so the ink presents itself differently on both sides. The second thing was to look closely at the lower edge of the textblock and try to identify the way in which the leaves were placed or folded. From the observations made on the codex, it appears to be composed of single leaves or bifolios that are stab sewn together. Fig. 3 shows the arrangement of the leaves according to my observations and the way in which the hair and flesh sides are positioned. There are clear changes in the positioning of the hair-to-hair and the flesh-to-flesh sides. But this was not uncommon, especially with early codices. Much of the first and last leaves could not be given a structure because of the fragmentary nature of the material. It is quite clear, however, that there was more than just one folio each at the beginning and at the end of the existing textblock, which means that there were more leaves than just the two surviving ones in Paris and Birmingham.

[7] For more information on early skins see Vnouček 2019.
[8] Cf. Moorhead 2009.

2. Prick marks

From the evidence of prick marks on 2058/1, we are able to deduce that there was a very organised preparation of the substrate before it was written upon. The leaves were pricked both vertically and horizontally to create the bounding lines for the margins and the text. There is evidence of prick marks in the upper and lower margins of both the left and right sides of the folios. The marks are not present on each folio as some have been trimmed away when the textblock was reshaped. The ruling for the bounding lines and text lines is all in blind. The codex is composed of leaves with text on 10 to 12 lines that are also written on blind ruling lines. The lines are clearly ruled from the fleshside of the skin. The distance between one line and another varies by 2–3mm.

Apart from the prick marks for the text there are other prick marks whose function remains a bit of a mystery. The first type is seen as a set of triple pricks on the lower outer margin of the folio. Most of these are seen in the form of star-shaped pricks such as those on fol. 6v (Fig. 4). There are others that are seen as tiny knife cuts that also come in threes. These were almost impossible to detect because from one side they are almost invisible which at times really made me doubt what I was seeing. It is not known what the function of these prick marks could have been because they do not align with the ruling patterns or from one folio to the next. Could they have been used to steady the page during writing or perhaps during ruling itself? But then why do they come in threes? What is certain is that they are individual pricks that were punctured in three separate moments, and unlike rake ruling, are not made by one tool that pierces at the same time. This is seen from the inconsistent way in which they are positioned: sometimes they are equidistant, sometimes in a random arrangement, and sometimes linear (cf. Fig. 5).

Fig. 4: Triple prick marks in the outer margin (fol. 6v)

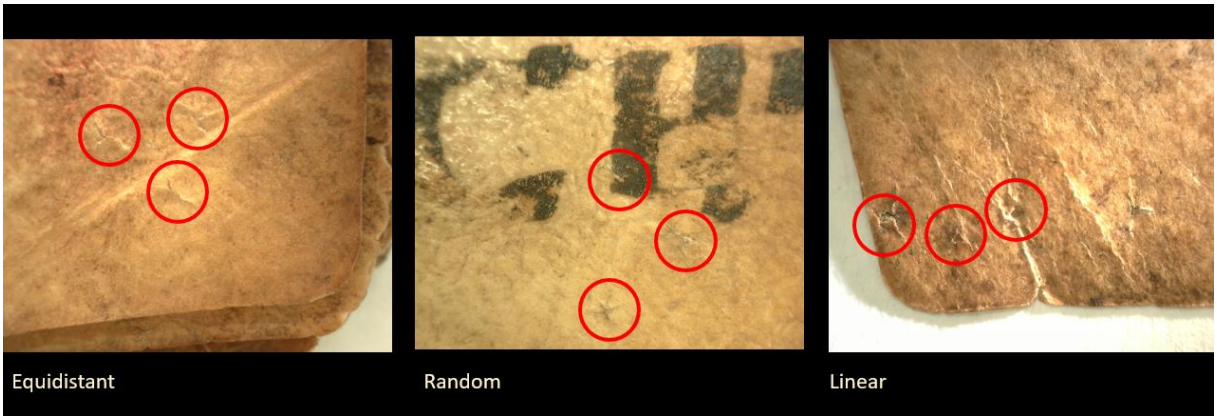

Fig. 5: Triple prick marks equidistant, random, linear

From the existing pricks we are able to deduce that there were two types of tools being used and the marks are always consistently positioned in the same place. This could mean that a scribe may have had more than one tool at hand or that a second scribe was assisting in the material preparation. The function of these marks, however remains unknown. My first

interpretation of this is as a marker for the binder. This ensured that the order and position of the leaves remained in sequence, perhaps if the binder was illiterate. My second interpretation is that they could have been points to create the parameters of a folio before it was cut down from a larger skin. It would be intriguing for researchers to come forward with any similar observations.

The second type of mysterious prick mark is found in the centre of each of the leaves. The prick is always performed from the verso and again is either star-shaped or knife cut. It is clear that groups of leaves were being punctured together because the holes get increasingly smaller on each succeeding folio. What is interesting is that these holes only start from fol. 7 and are punctured through the writing which means that this was carried out after the text was written. After several hours of brain-wracking to identify the use of these marks, our efforts remain inconclusive.

3. The ink

The ink used to write the text of 2058/1 is iron gall ink. This is clear from visual observations especially from the *khan* letters that were scraped away on the hairside where the ink was readily absorbed into the skin. The iron ions in the ink assumed a red-brown colour that is typical of oxidised iron gall ink. Overall, the ink is very stable and uniform but on one particular folio, the ink that is visible from verso to recto appears to have a greenish tinge. This is typical of an iron gall ink that contains copper particles. So far, no scientific analysis has been carried out but from the visual observations made, we can already tell what materials were available to a 7th-century scribe in the Sinai desert (that is, assuming that the provenance is Sinaitic).

The rubricated headings in 2058/1 are written in red ink which is probably vermilion (pulverized cinnabar). Vermillion is composed of mercuric sulphide which is toxic and appears as a red-orange pigment. It is a dry process vermilion or mineral cinnabar because the wet process cinnabar did not appear until after the 18th century.[9] Vermillion does not show as one specific hue because mercuric sulphides produce a range of warm red hues from orange-red to reddish-purple. The difference in the hues is created by the size of the ground pigment particles. When the particles are large, they produce duller hues. But what is fascinating is that vermilion darkens when in touch with elements of chloride, sulphur or oxygen (cf. Fig. 6).[10]

Fig. 6: Red ink, probably vermilion showing darkened areas as a reaction to mercuric sulphide (fol. 12)

Now the process of making parchment from an animal skin involves the application of a lime solution, the most popularly used for centuries being those using calcium hydroxide or sodium sulphide. If the leaves of 2058/1 were produced with such a lime solution, it would not be surprising that the mercuric sulphide particles became even darker upon their reaction to the sulphur ions. Additionally, changes in relative humidity would mean that oxygen would react with the mercuric sulphide resulting in further darkened vermillion. This is a phenomenon

[9] See Spring & Grout 2002: 50.
[10] Cf. Moskowitz 2013.

that has been studied for later paintings but I cannot see why the same principle is not applicable to early manuscripts such as this. There are also some carbon ink insertions in the text, probably done at a much later stage because the style of writing is entirely different.

4. Decorations and binding

This lectionary also has some minor decorations. These include the diagonal cross with four points and end pieces that come in the form of squiggles in red and black.

The textblock also includes a leather tab made of goat skin. From its clear-cut edge, we can see that this was snipped off when the manuscript was trimmed down. There is also a fragment of a thread that runs through a hole on the edge of one of the folios. This could have once been a form of a tab but it does not correspond to the beginning or end of a significant part of the text. It could also be related to the ruling process of the folios but it is only seen once throughout the textblock. It is not known what exact function this fragment of a thread could have had.

The sewing and binding structure of 2058/1 is as complicated as it can be. Because of the multiple and tight sewing structure and the heavy gluing of the spine, it was extremely challenging to detect the way in which the sewing was carried out (cf. Fig. 7). What is being presented here is an attempt to understand how the leaves are positioned and how the sewing process was carried out in different stages.

Fig. 7: Head of the textblock showing a heavily glued spine

Fig. 8 shows the reconstruction of the manuscript. It is not an exact rendering of the textblock but is simply meant to give an impression of the sequence of the single leaves and bifolios. The drawing does not even include the same number of leaves because it only acts as a model to understand the randomness of how the textblock was put together. The single leaves are indicated in blue, the bifolia in orange and the stays (or stiffeners) are in green. The stays are used to support the sewing in the spine fold. In our case they are made of recycled parchment folios which are discussed further down.

According to observations made, this manuscript was stab sewn, perhaps by grouping individual leaves or bifolios together. It was then given an overcast sewing, and finally sewn on hemp supports (Fig. 9) What we see today is a mixture of all sewing styles at once making it increasingly difficult to understand (Fig. 10).

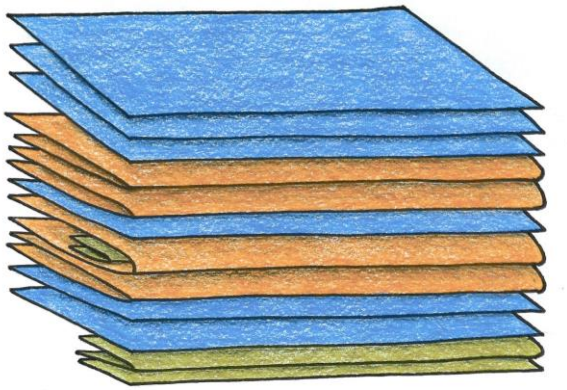

Fig. 8: Model showing how randomly the leaves were put together

A fascinating feature is the way in which the stab and overcast sewing was carried out using parchment and sinew. The parchment appears to be rolled or folded while the sinew, which is a tough tissue made from a tendon or ligament, is plied in a Z twist (Fig. 11). A successive sewing to the first two has a supported structure on five hemp cords. We can see that the cords are external to the textblock and a system of packed sewing was used. This can be observed from the several pieces of remaining threads that are still glued to the spine. There are also thread fragments at the head and tail which were probably tie-downs.

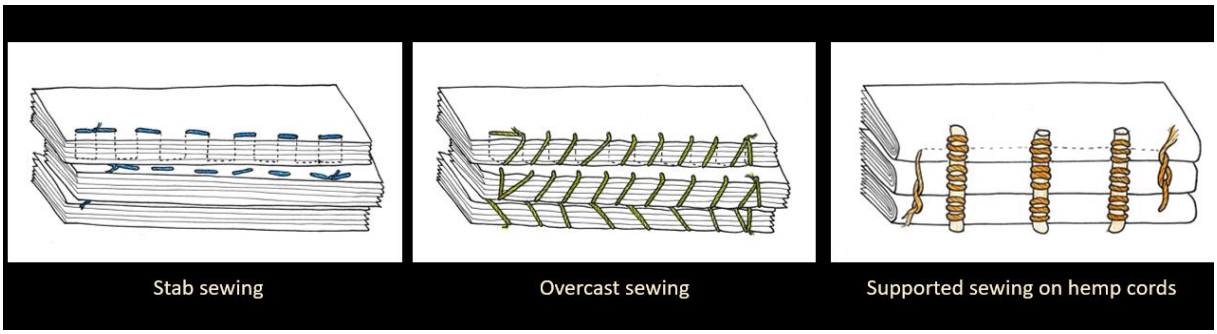

Fig. 9: Model diagram showing individual sewing structures; these are not exact renditions of the original

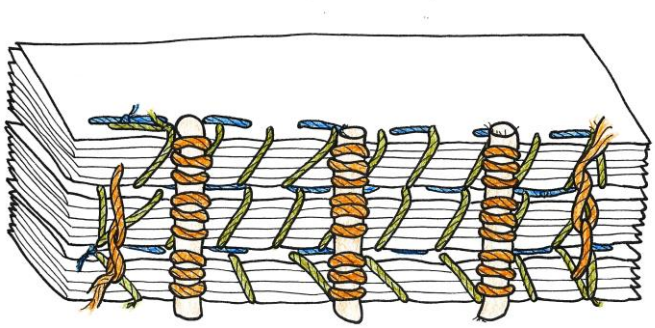

Fig. 10: The above three sewing structures together; this is not an exact rendition of the original.

Fig. 11: Sinew used for stab sewing

Fig. 12 shows a cross section of a part of the manuscript: from top to bottom one can see the linen cloth that is used as a cover or spine lining that comes in three layers. Then there is the sewing support which is the hemp cord. The hemp threads are clearly looped around the cord.

Then comes the textblock with some fragments of parchment leaves that are now lost. And finally, the transluscent sinew that was used for sewing.

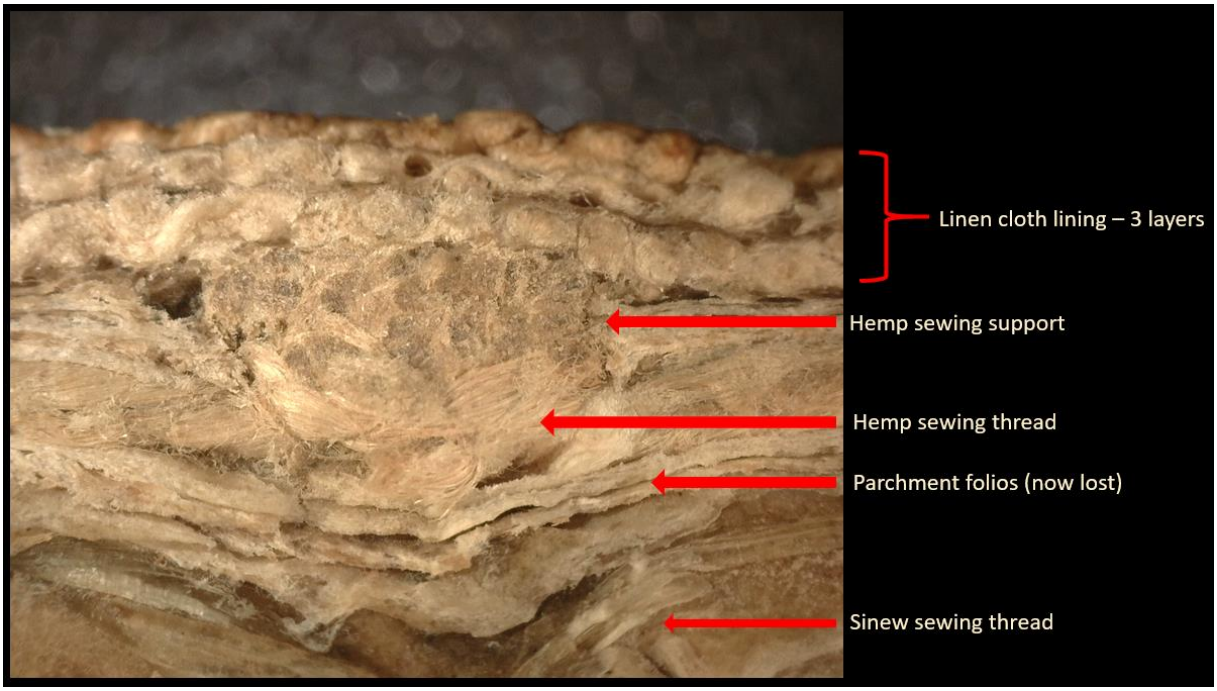

Fig. 12: Cross section of a part of 2058/1

There is also a fragment of papyrus tucked between the stab sewing of the first leaves. This piece of papyrus may have slipped in the gutter and may not be part of the binding process but I find it hardly accidental that it should fit so tightly and exactly beneath the stab sewing. It is not known what its purpose could have been. Perhaps it was used as a stiffener?

2058/1 has stays made of parchment that are made of recycled fragments with Sinaitic text (Fig. 13). One stay has been detached and the other three are still *in situ*. It has been awkward to be able to read the letters also because the stays are quite tightly sewn to the spine. A prism was therefore used to help reach the innermost parts of the text closer to the spine region. Thanks to Erich Renhart we are now able to identify the text on one of the sets of stays.[11]

5. Conclusive remarks

In as much as new elements about 2058/1 have been brought to light, it remains a challenge to interpret them. The questions that arise from this research are: How many times was it sewn? Were the stays with Sinaitic text inserted in the 7th century with its first sewing? Or were they inserted at a later date? What is the function of the triple prick marks and the central prick? How were scribes working and how were their parchment skins prepared? And ultimately, the question we want to ask is how meaningful is this manuscript in understanding Georgian texts and the history of the book in the first millennium?

It is hoped that with the details brought together in this paper, other scholars who are familiar with Georgian manuscripts are able to piece together the story of the making of this book. I thank Prof Erich Renhart for encouraging me to write about this manuscript, for discussing it

[11] The results of Erich Renhart's research will be published independently from this paper.

with me and providing me with the essential literature about it. It is thanks to him that I ended up studying the codicology of this manuscript. It has been a taxing yet enjoyable experience in sharpening my skills in looking at complicated structures, and no doubt one that places infinite yet unanswered questions to scientific research.

Fig. 13: Parchment stays with Sinaitic text used to strengthen the sewing betwee fols. 26v and 27r

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გრაცის ქართული ლექციონარის კოდიკოლოგიური აღწერილობა

ტერეზა ზამიტ ლუპი (გრაცი)

ნაშრომში აღწერილია VII საუკუნის ერთი უნიკალური ქართული ხელნაწერის – გრაცის ხანმეტი ლექციონარის კოდიკოლოგიური მახასიათებლები. ხელნაწერი 2058/1 ლექციონარია და განეკუთვნება ხელნაწერთა იმ ჯგუფს, რომლებსაც სინური წარმომავლობა აქვთ. 5 ხელნაწერისგან შემდგარი აღნიშნული ჯგუფი გრაცის უნივერსიტეტის ბიბლიოთეკის სპეციალური კოლექციების განყოფილებაში ინახება და თარიღდება VII–XI საუკუნეებით.

როგორც არსებული სამეცნიერო ლიტერატურიდან ჩანს, ლექციონარი კარგად არის შესწავლილი როგორც შედგენილობის, ისე ფილოლოგიური თვალსაზრისით. თუმცა შეუსწავლელი დარჩა ხელნაწერის დამზადების ისეთი მახასიათებლები, როგორებიცაა: ნაწერის განლაგება ხელნაწერის გვერდზე (mise-en-page), ხელნაწერის აკინძვის სტრუქტურა და მეთოდოლოგია, რვეულების, ყუისა და ყდის დამზადება. აქ ჩამოთვლილი მახასიათებლები ხელნაწერის სრულფასოვანი შესწავლისათვის უაღრესად მნიშვნელოვანია და, შესაბამისად, იმსახურებს შემდგომ კვლევას. გრაცის ხანმეტმა ლექციონარმა შექმნიდან მოყოლებული თავისი არსებობის განმავლობაში რამდენჯერმე განიცადა ცვლილება და ეს ცვლილებებიც საგანგებო ანალიზს მოითხოვს. გარდა ამისა, ხელნაწერთან ერთად დაცულია ეტრატის დაუწერელი ფრაგმენტები, რომლებიც, როგორც ჩანს, ხელნაწერის საცავ

ფურცლებად იყო გამოყენებული. პერგამენტის ეს მეორეული ნაწილებიც შესწავლას ელიან.

კოდიკოლოგია სწავლობს ხელნაწერის არა მხოლოდ სტრუქტურასა და ფუნქციას, არამედ მასალის შესწავლასა და მის იდენტიფიკაციასაც გულისხმობს. წარმოდგენილ ნაშრომში განხილულია გრაცის ხანმეტი ლექციონარის დასამზადებლად გამოყენებული სხვადასხვა სახის მასალა, როგორებიცაა: ეტრატი, მელანი და ძაფები. ვიმედოვნებთ, რომ ეს კვლევა ახალ შუქს მოჰფენს 2058/1 ხელნაწერის მნიშვნელობას, რაც, თავის მხრივ, ხელს შეუწყობს პირველ ათასწლეულში ქართული წიგნის წარმოების საიდუმლოს გაგებას.

პალეოგრაფიისა და ხელოვნების ისტორიული ანალიზის მსგავსად, კოდიკოლოგია ერთნაირად მნიშვნელოვან როლს ასრულებს ნებისმიერი ისტორიული წიგნის შესწავლაში. ხელნაწერების კვლევისას ბოლო დრომდე ყურადღება ყოველთვის გადატანილი იყო ტექსტზე და/ან ტექსტის დეკორაციაზე, მაგრამ ცხადია, რომ წიგნის ფიზიკური მდგომარეობის კვლევა ასევე სანდო მტკიცებულებებს იძლევა.