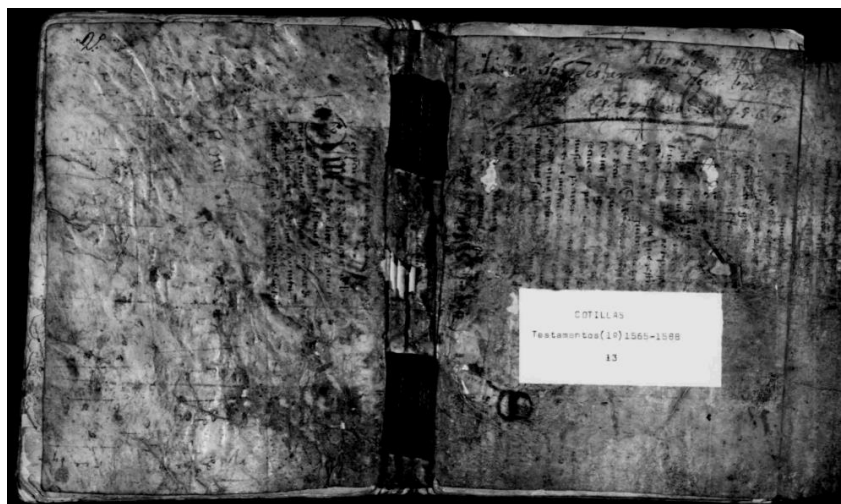
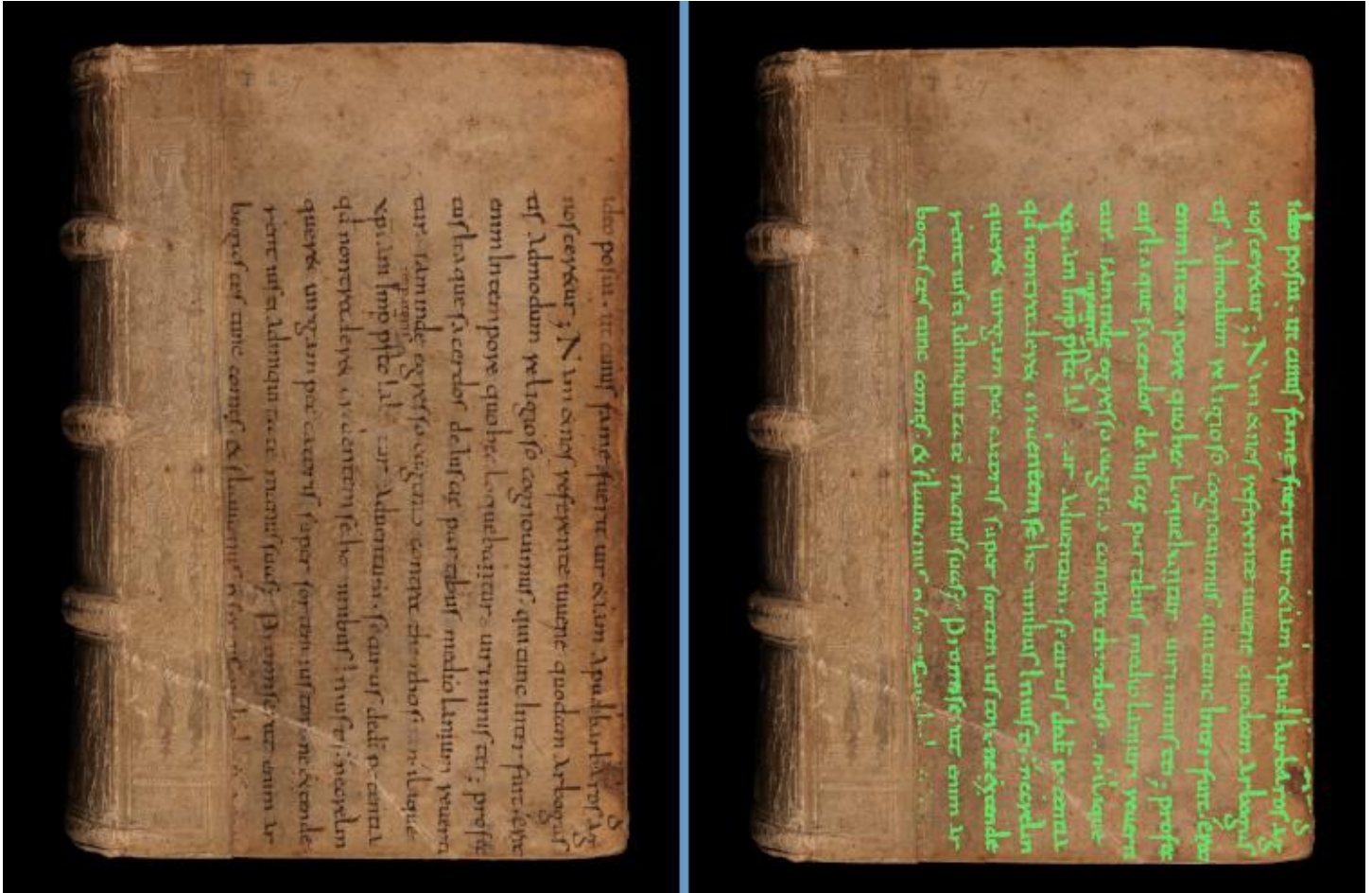


[Classification c1,] "Outside cover reuse"

<DisplayName> **Outside cover reuse** </DisplayName>
<KeyboardShortcut> **O** </KeyboardShortcut>
<DirectoryName> **Outside_Cover_Reuse** </DirectoryName>
<AddedFilenameEnding> **orc** </AddedFilenameEnding>

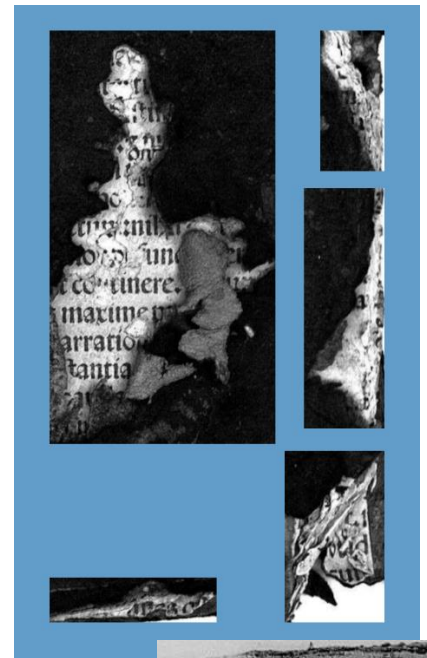
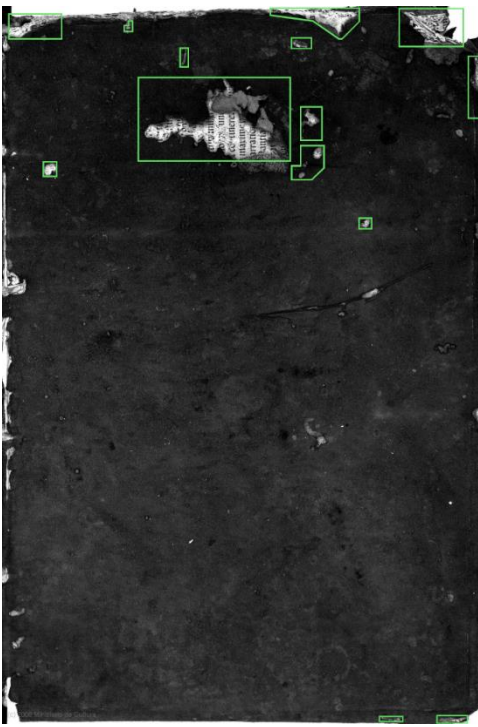
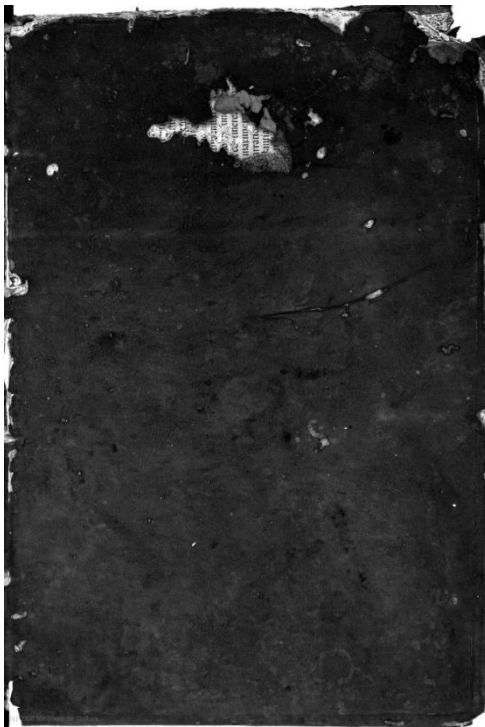
Front cover, back cover, spine, all three. The text/decoration/illumination is visible on the outside cover surface is visible through from the other side. It must be on the codex/book. Limp vellum covers OK, but not wrappers.



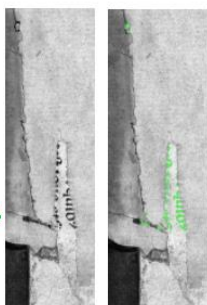
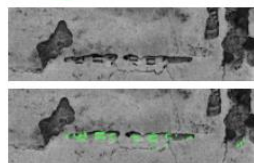
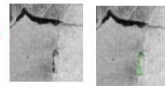
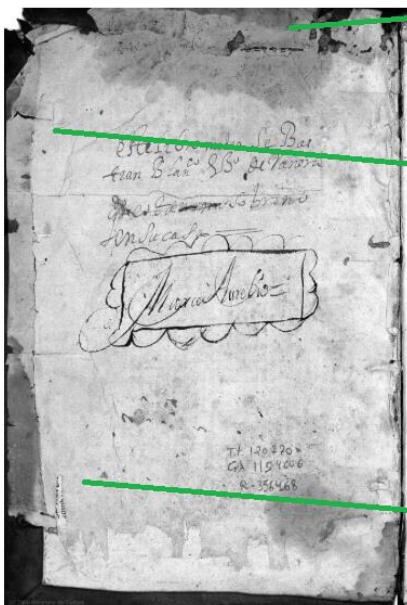
[Classification c2,] "underR cover reuse"

```
<DisplayName> under cover reuse </DisplayName>
<KeyboardShortcut> R </KeyboardShortcut>
<DirectoryName> Under_Cover_Reuse </DirectoryName>
<AddedFilenameEnding> ucr </AddedFilenameEnding>
```

A tear or hole reveals some reuse under the cover or under the paste-down. If it can be determined that this is really reuse protecting the spine, use 'spine Protection reuse'. It is okay to use both of those *for the same piece of reuse*, as long as you DON'T use 'multiple Binding reuse classes'. However, if there is such an unsure piece as well as *another* instance of reuse, *do* use 'multiple Binding reuse classes' along with the classification(s) of the other class(es). Also, even though I named it 'underR cover Reuse', holes in the paste-down that show human signs/symbols/drawings are also classified as 'R'. *Something must be torn, folded, taken away.*

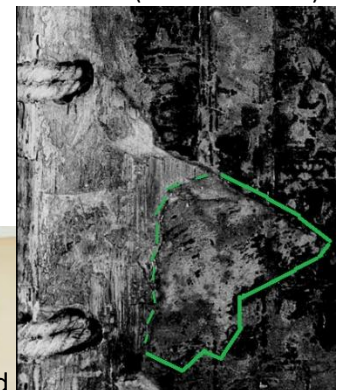


Multiple pieces of paper, probably stacked to make the cover thick, have writing visible through the front-cover's material that appears black here.

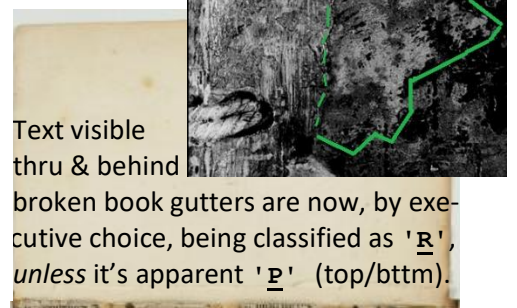


Here, we see an example of 'R' being seen through the front paste-down.

These unpeeled, folded back portions (of what could be ORC if not folded) are now UCR (as of 2025-05-05)

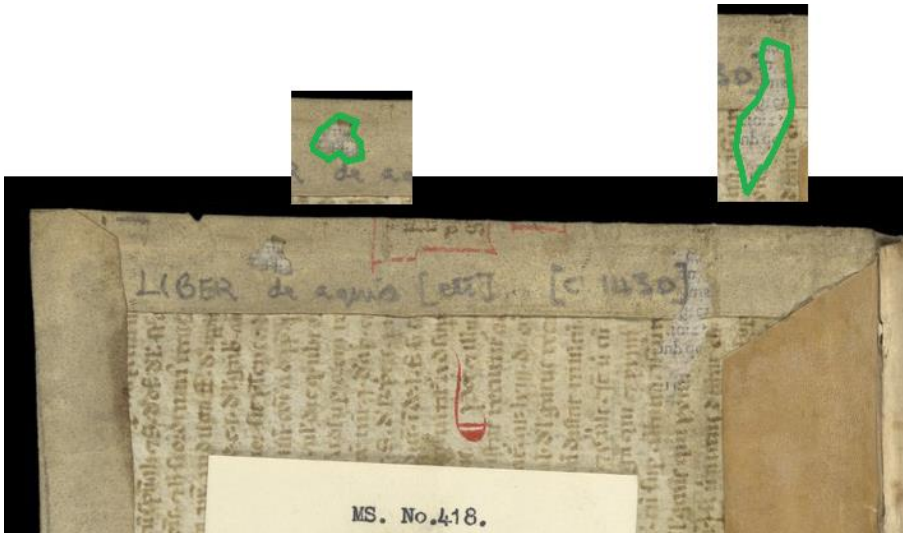


Text visible thru & behind broken book gutters are now, by executive choice, being classified as 'R', unless it's apparent 'P' (top/bttm).



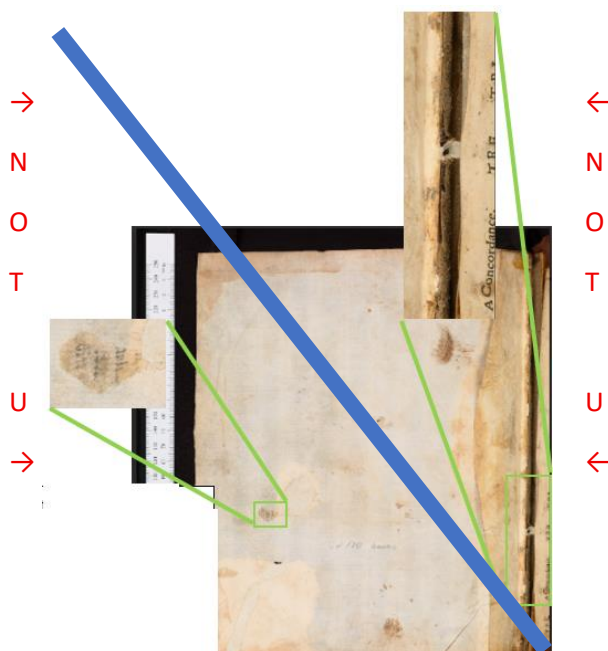
[Classification c2,] "underR cover reuse" (continued)

I've decided that some situations that I think of as over-cover reuse, where part of a page across or a possibly previously-used paste-down (or another book stuck to the current surface, since I don't know that we could tell the difference) remains that's obviously not the same as the main reuse, should also be included in 'R'. Again, this should be obviously different from an existing reuse. For right now (2025-07-18, when I'm making this change), if it's the only reuse visible, say on a front-matter surface, it should not be classified as 'R' (in this hypothetical above—with the front-matter surface—it should be classified as 'F'). See the bottom-right example for c9, i.e. 'G'. [I'll need to review images, especially ones with 'F' and 'O' (and maybe 'P').]

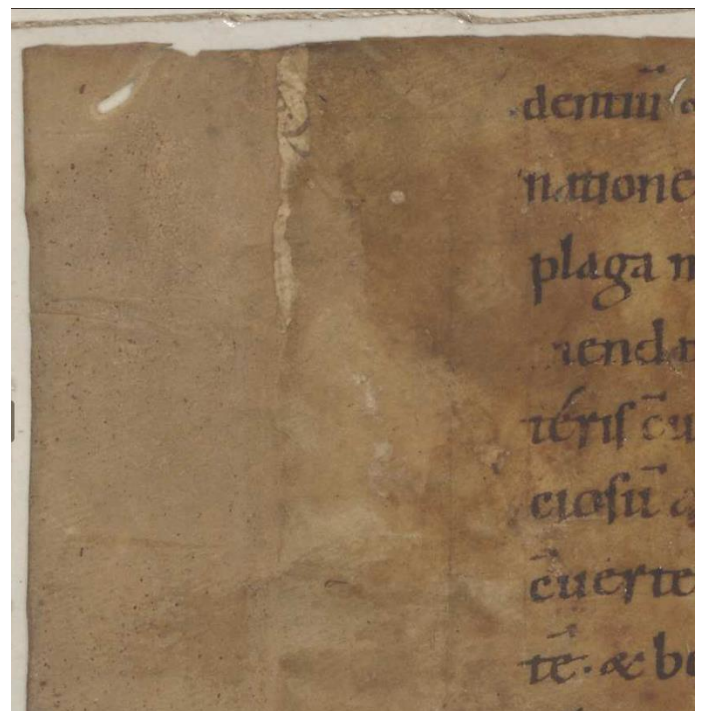


There are two "over-cover" types of 'U' here. (Note that the main deciding factor here is the fact that there are tears (would also work for folds and the opposite of things taken away, the latter being things added)).

Here is the example for c9, which should not be labeled as 'U', but rather as 'F'.



It should get 'G', 'F', 'R' AND 'B'.



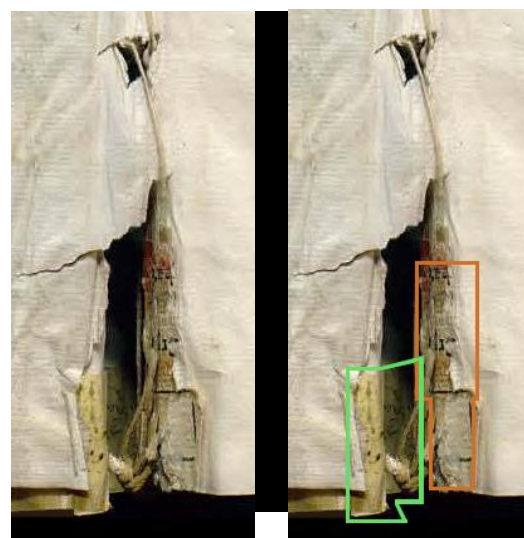
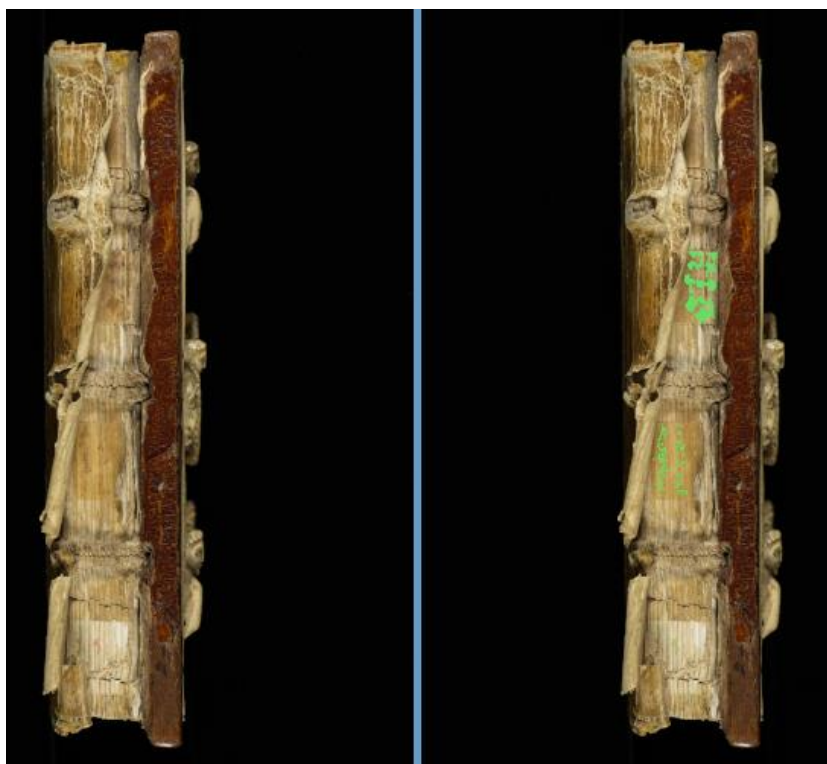
There is a glued-before-and-stayed-when-torn piece, which is one basic situation for the "over-cover" 'U'. It is glued on top of a not-in-situ reuse surface. The gluing need not be intentional.

[Classification c3,] "sPine protection reuse"

```
<DisplayName> sPine protection reuse </DisplayName>  
<KeyboardShortcut> P </KeyboardShortcut>  
<DirectoryName> Spine_Protection_Reuse </DirectoryName>  
<AddedFilenameEnding> spr </AddedFilenameEnding>
```

A fragment is reused to protect the spine. In some cases, it also goes around to protect part of the covers; however, if it can be seen as part of a paste-down or flyleaf, do not classify it as 'sPine Protection reuse' *unless* the image of the surface is meant specifically to show the spine. If it can be seen as part of a paste-down or flyleaf and is not part of a spine image, it should be labeled 'Front-back matter reuse'.

Note that these first two surface views are two different views of the same codex.

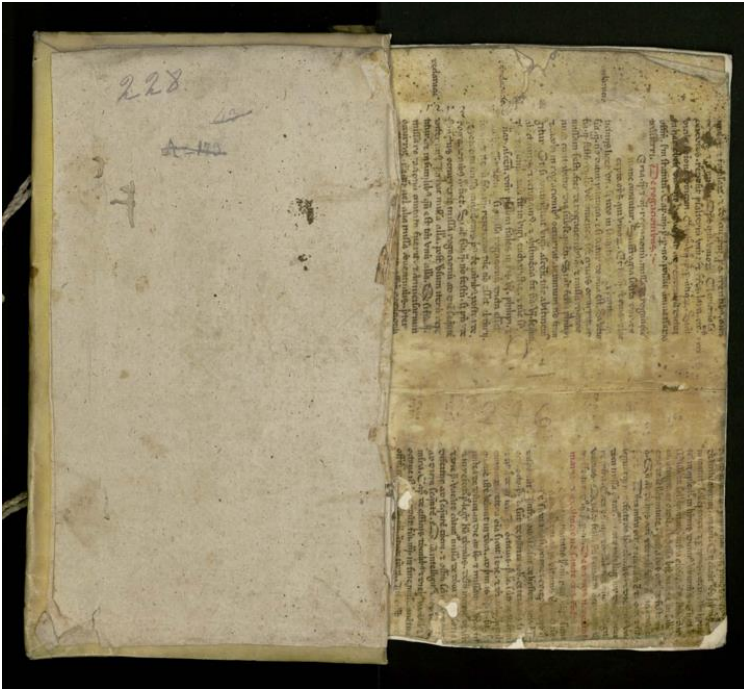


Spine protection (notice position on bottom, highlighted in green). Also 'R' in orange.

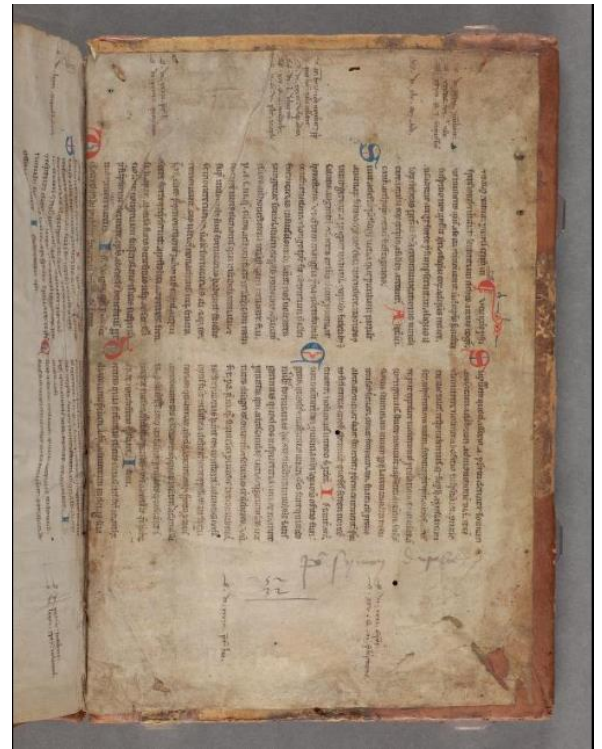
[Classification c4,] "Front-back matter reuse"

<DisplayName> **Front-back matter reuse** </DisplayName>
 <KeyboardShortcut> **F** </KeyboardShortcut>
 <DirectoryName> **Front-back_Matter_Reuse** </DirectoryName>
 <AddedFilenameEnding> **fmr** </AddedFilenameEnding>

A fragment is reused as a paste-down or as a flyleaf. We aren't differentiating paste-down from flyleaf.



The page on the right is what used to be a paste-down (look at the edges closely) but is now a flyleaf. We don't differentiate, so the class is the same. Paper with "228" is the current paste-down.

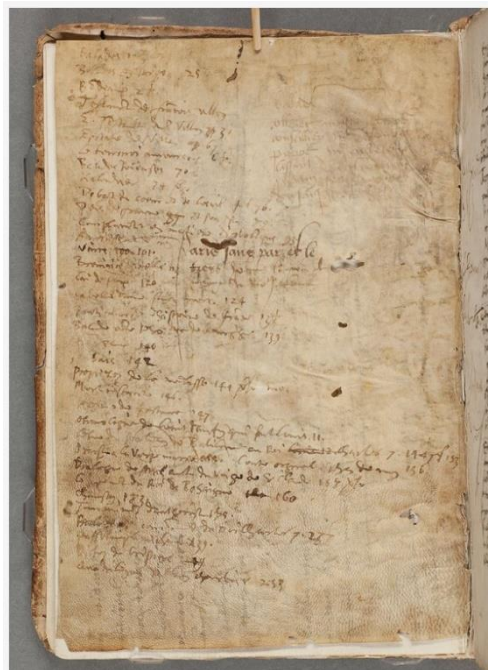


Back paste-down (also across-book-gutter

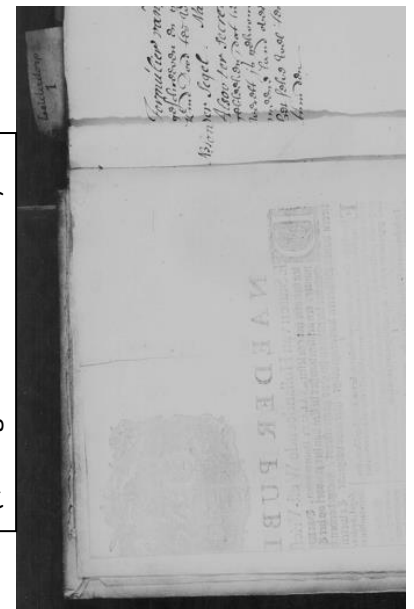
'Front-back matter reuse').



Front flyleaf – recto. The verso will be shown in the next image (to the right).



Front flyleaf – verso. It receives the classification even though you only see through to the reused text.



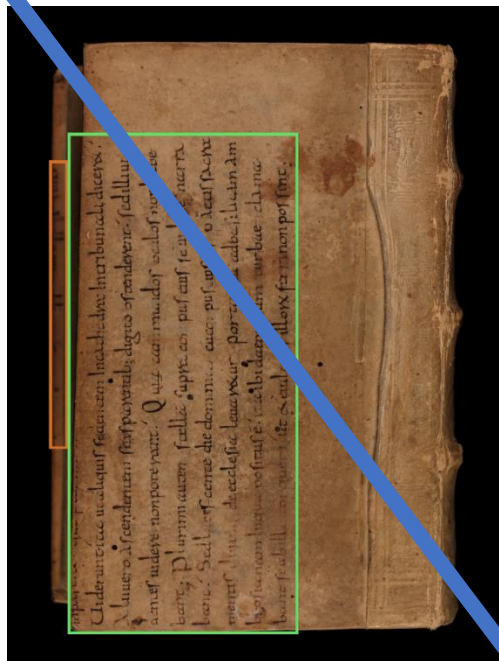
(↓ Image rotated 90° CCW)

Another visible-from-the-other-side paste-down or flyleaf. Since we don't differentiate, no worries!

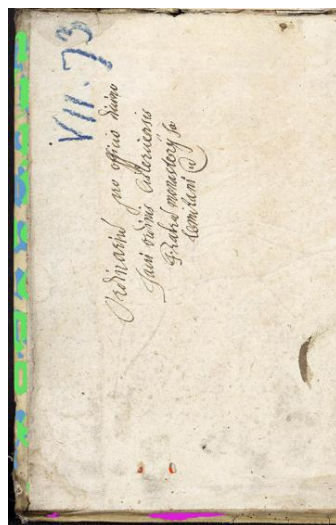
[Classification c6,] "cover Wraparound reuse"

<DisplayName> **cover Wraparound reuse** </DisplayName>
 <KeyboardShortcut> **W** </KeyboardShortcut>
 <DirectoryName> **Cover_Wraparound_Reuse** </DirectoryName>
 <AddedFilenameEnding> **cwa** </AddedFilenameEnding>

It's wraparound – 'cover Wraparound reuse' – if you can see the inside edge of the wraparound, i.e. at least one point. Otherwise, it's 'Tiny background reuse'. If you're unsure I'd suggest 'T'.

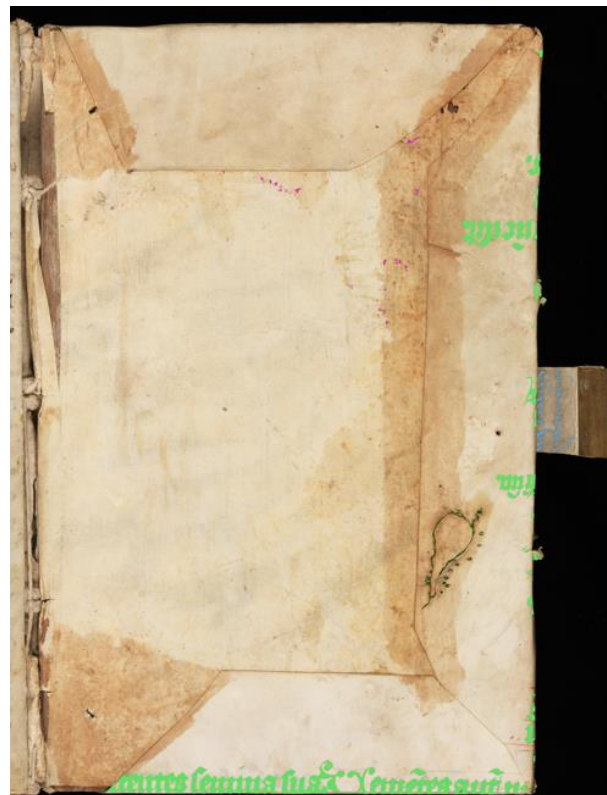


The wraparound or tiny bkg is highlighted
 In orange, choose 'T' over 'O', use 'B', too.



No need for it to be small
 ('O' in bright green, light-blue, and maroon). Also 'T' (red), so 'B', too.
 (part img. rotated CCW.)

Look for the †
 in 'T' (tbr)
 for some
 ruling info



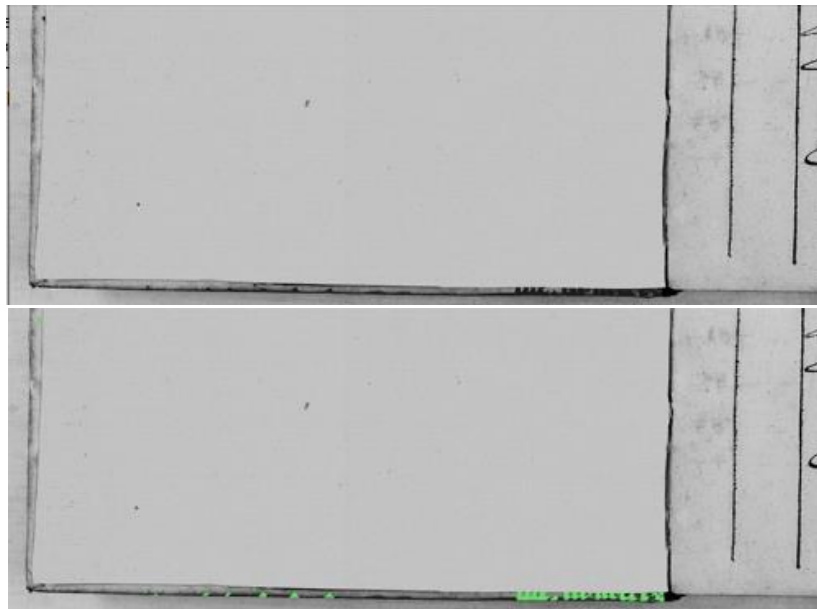
The wraparound is highlighted in bright green.
 There is also 'F' (maroon), 'C' (light-blue), and some stitching (dark-green). You'll need 'B', too.



Notice the visible edge of the wraparound. There are also a couple of manicules (which aren't being labeled now) on the left-hand page.



On head/tail like this considered 'w'. (part image, rotated.)

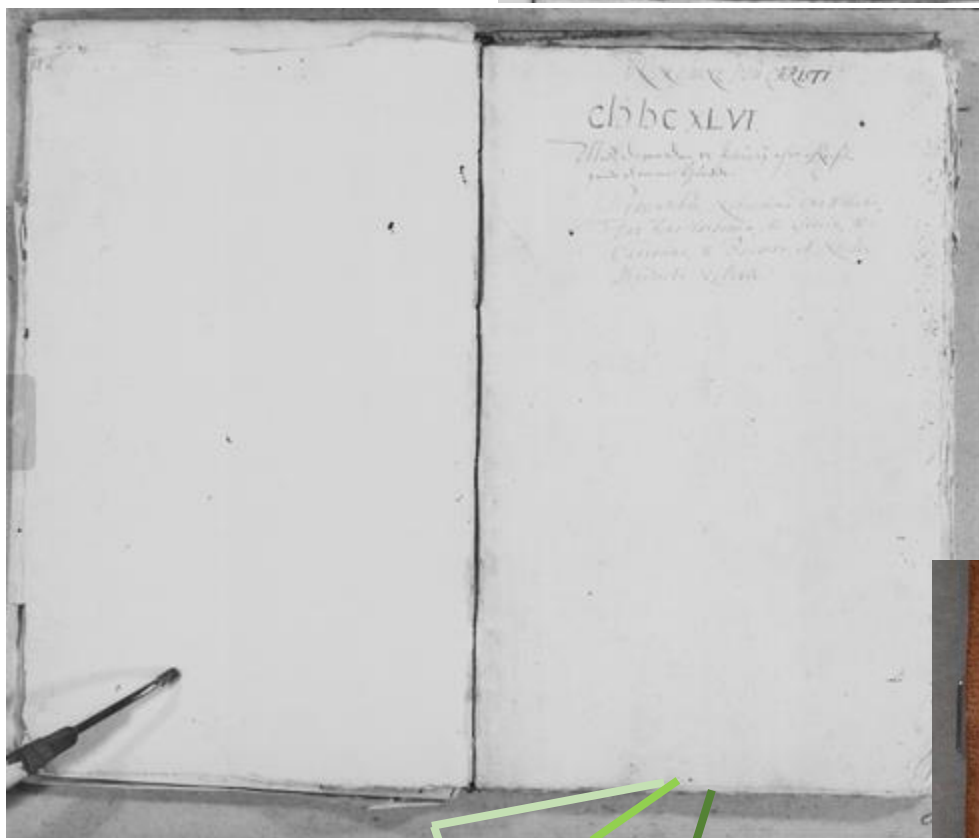
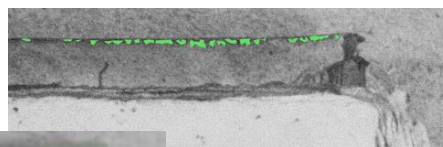
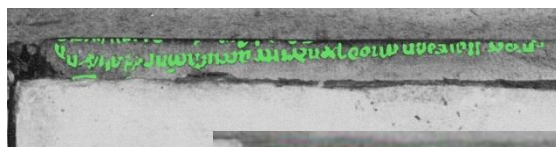
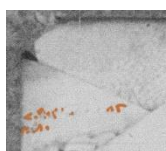


These can be small and hard to see, but they are arguably the most important for finding new and otherwise unseen fragments.

[Classification c7,] "Tiny background reuse"

```
<DisplayName> Tiny background reuse </DisplayName>
<KeyboardShortcut> T </KeyboardShortcut>
<DirectoryName> Tiny_Background_Reuse </DirectoryName>
<AddedFilenameEnding> tbr </AddedFilenameEnding>
```

It's basically wraparound reuse or Front-back matter reuse that's visible when one is reading in the book. It's when you can see the wraparound, but not the inside edge. There are pages in between where you're looking from and where the edge reuse is found (either before "what you've read" or after – I know you probably haven't been reading the codex, but I feel it's the clearest way to explain things). These are small and difficult to find, but I consider them the most important class, because they'll allow us to find codices where the main reuse hasn't been imaged. Knowing about the cases will allow us to contact archives, etc. to ask for access to the codex and see the reuse.



This is some nice 'T' (green). I've put some n orange, because it *could* be classified as 'w', due to a little wraparound-meets paste-down spot.



You might only have two marks from the bottoms of letters to find this.



This can be tiny and tricky. On the left is 'C', but on the right is 'T'; as with 'T' & 'w' cases, if unsure betw. 'T' & 'C', use 'T'. (part imgs.)



However, because of the visible pages in front of the paste-down, I'd call this 'T'.

A 'T' view of a reused paste-down from many pages later (i.e. many pages after the paste-down). (part of image)

[Classification c7,] "Tiny background reuse"

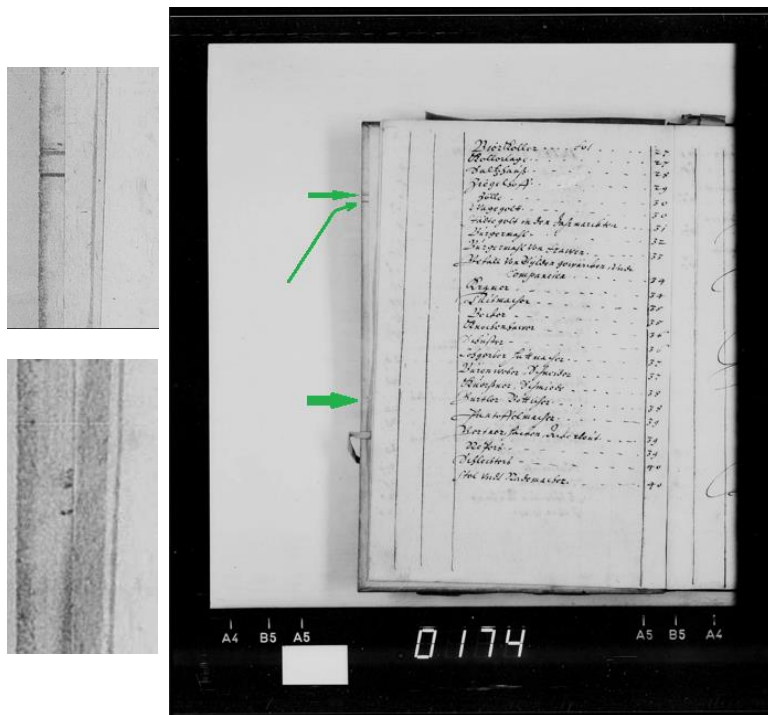
(continued)

I've made a change based on what I think will give more positive finds (though perhaps only when asking the archive to look). This will affect both tiny background reuse and cover wraparound reuse, so I'm going to put a refer-here sign

† When only a sliver of the cover wrap-around is visible, *and* you can see ruling lines, it should be positive for tbr or cwa, depending on the case. Examples should help, though you'll likely have to zoom unless (until) I get back in here to greenify stuff.

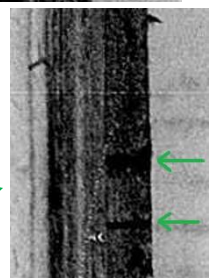
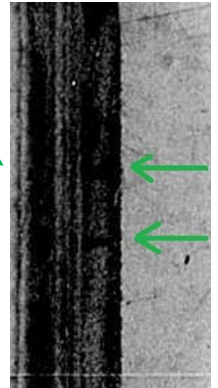
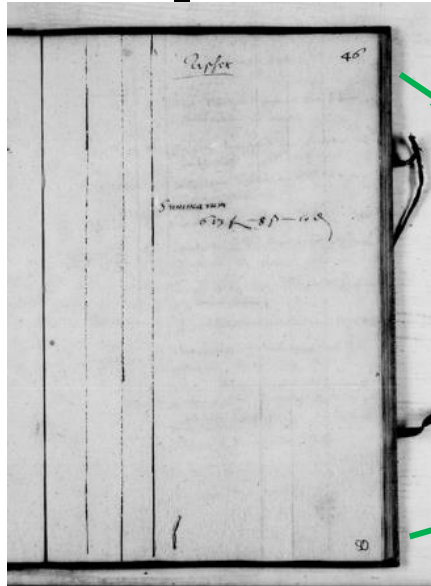
This will require going back to re-classify some stuff, but I think it's worth it.

Note that this only goes for tiny background reuse and cover wraparound reuse. Any other classification base (i.e. front matter, outside cover, connecting/guard ...) on which you see ruling lines but no text/decoration/illustration should be marked as negative for binding reuse.

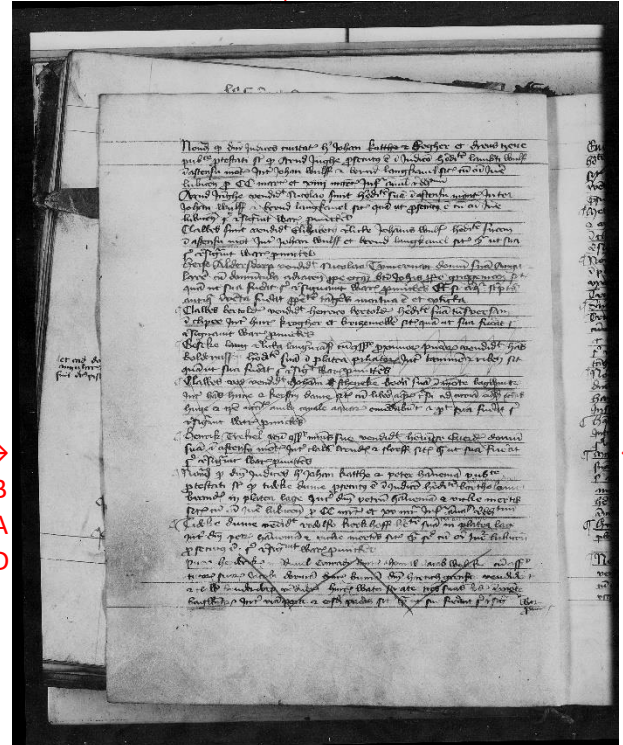


This one should be 'T'; I'd probably let a 'w' pass.

Should be a 'T'.



BAD! NOT THIS ONE ↓, EITHER! NO!!!!



BAD, NOT THIS ONE ↓. NO!!!!



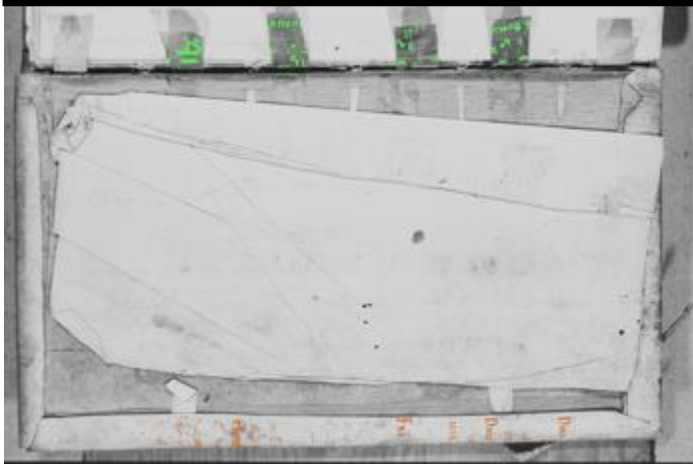
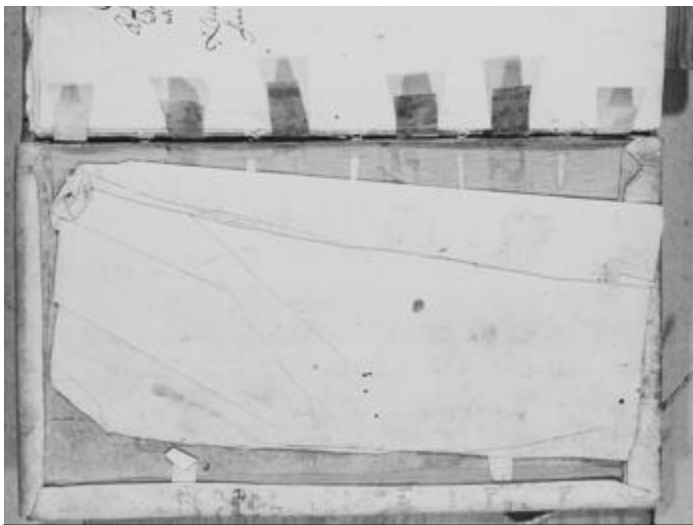
There is ruling without words here, but we're not on an accepted surface type.

On this, you can see the ruling on a sliver, but it's on a folio in the middle of the codex.

[Classification c8,] "Connecting or guard reuse "

<DisplayName> **Connecting or Guard Reuse** </DisplayName>
 <KeyboardShortcut> **C** </KeyboardShortcut>
 <DirectoryName> **Connecting_or_Guard_Reuse** </DirectoryName>
 <AddedFilenameEnding> **scg** </AddedFilenameEnding>

This is often, but not always, small, so I took the "small" out of the name. The 's' in the three-letter directory ending will just stay there, I guess. ~~Just giving examples for now.~~ Oh, if unsure between this ('C') and 'T', choose 'T'. (I really like these.)



↑ Besides 'C' (green) there is 'W' (orange), meaning we need to add 'B' as well. (part image, rotated CCW)

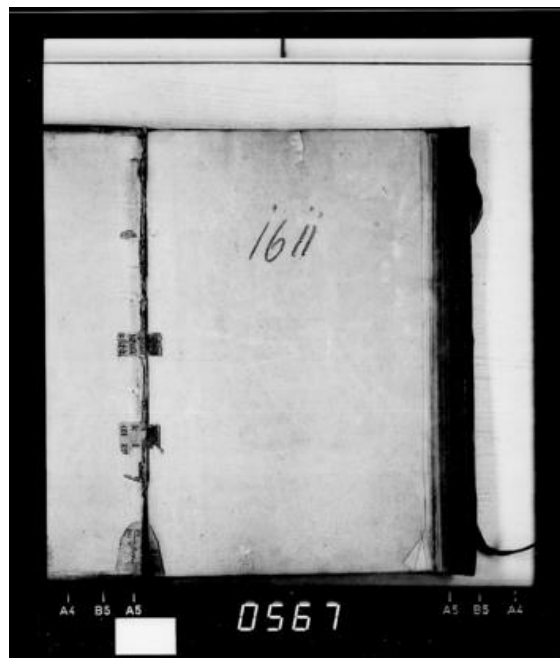


Mid-book (parts of 3 consecutive images)

My only guess for Banitsa Gospels reuse below is



'C'.



I really like these!



This ↑ is a good view of the connecting type of reuse. The straps which tie pages together connect to the the cover by the reused (printed) writing surface.



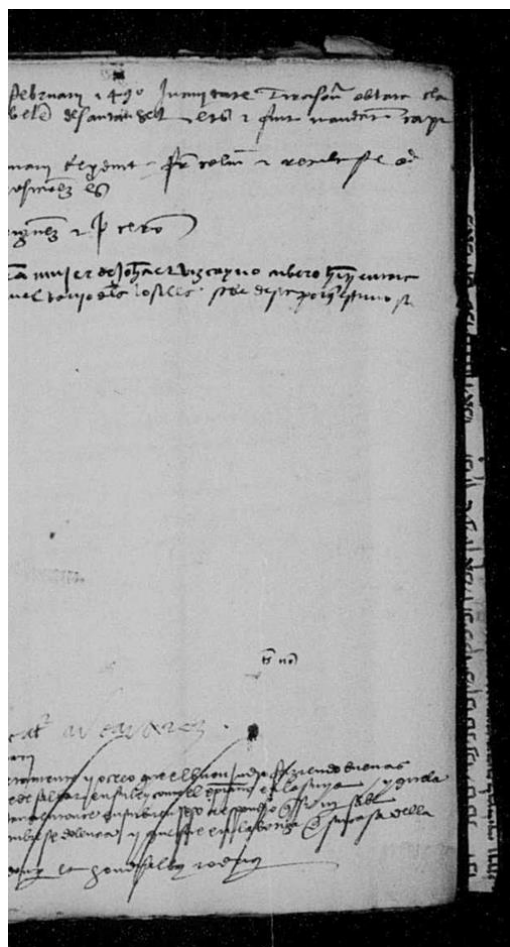
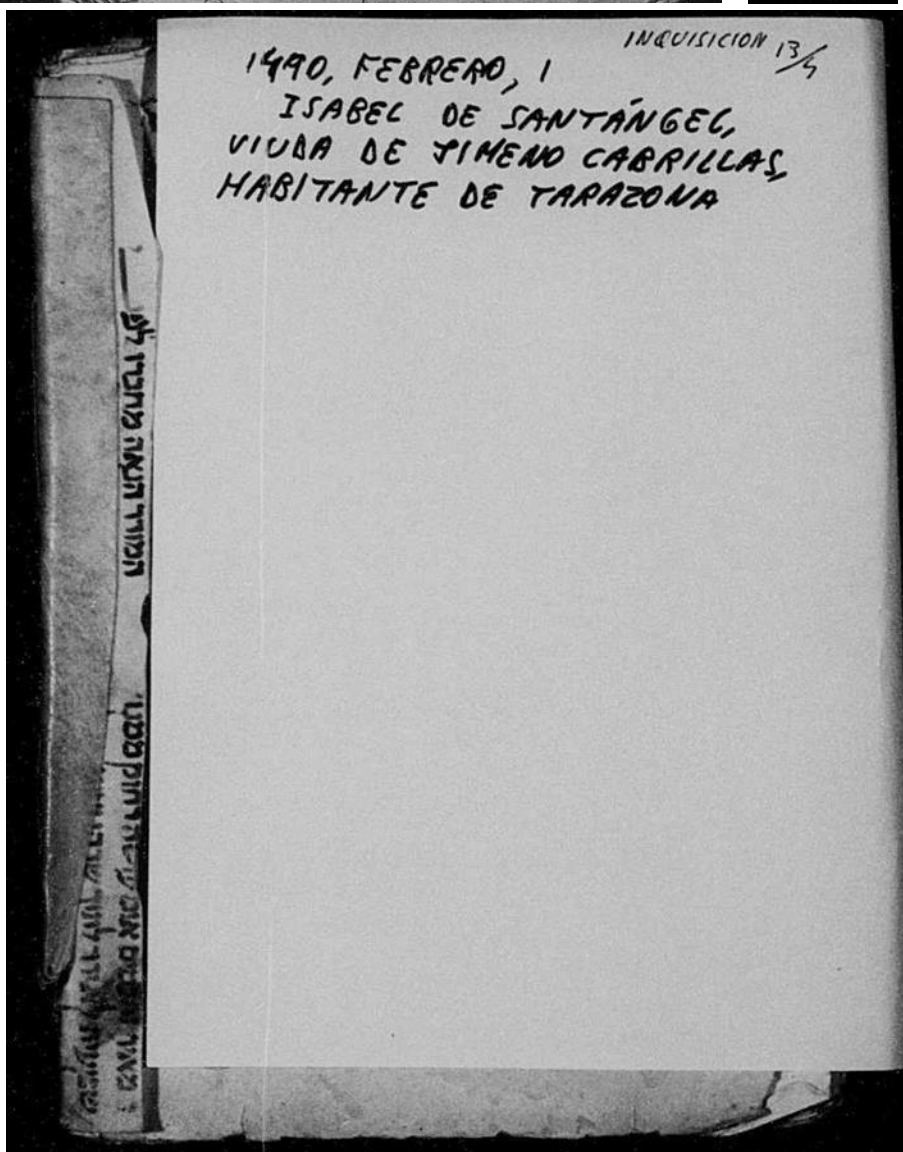
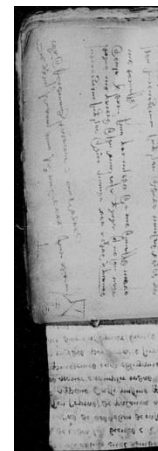
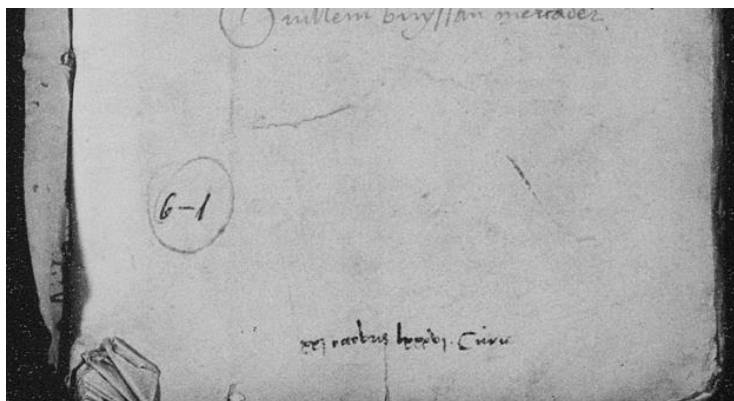
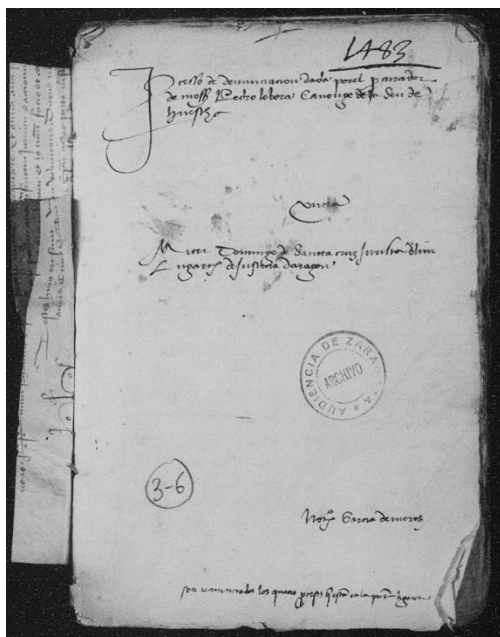
I should really check with a codicologist on this one... (partial image)



Can be found in the middle of books. (part, rotated CCW)

[Classification c8,] "Connecting or guard reuse " (continued)

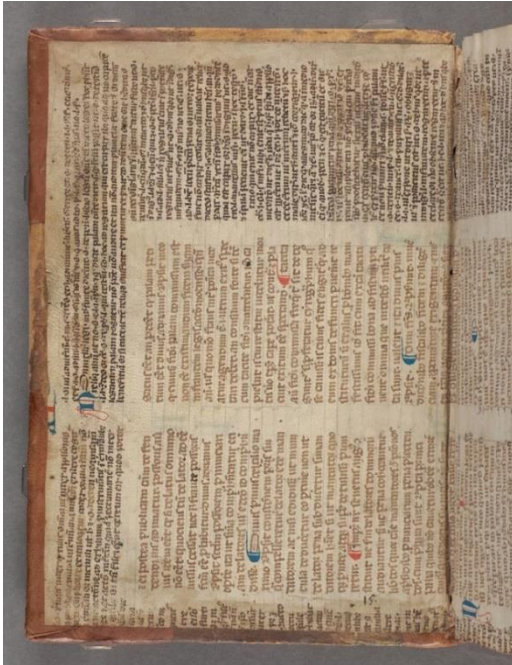
I've run into a new situation where only the spine part of the book has a piece that binds the folia together. See the examples below. Though these would be functionally better described as spine protection reuse, the visual characteristics are more like that of connecting or guard reuse, so they will be classified as 'B'. An interesting note: these have only been found in documents from the Spanish Inquisition.



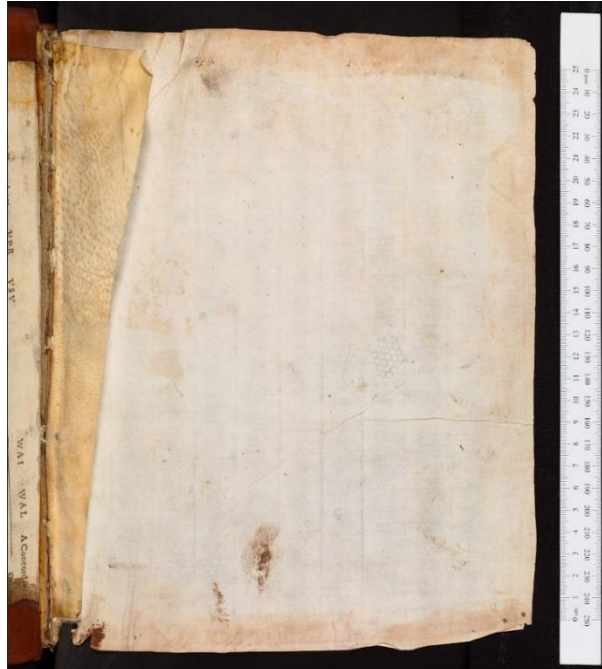
[Classification c9,] "across book Gutter reuse "

<DisplayName> **across book Gutter reuse** </DisplayName>
 <KeyboardShortcut> **G** </KeyboardShortcut>
 <DirectoryName> **Across_Book_Gutter_Reuse** </DirectoryName>
 <AddedFilenameEnding> **abg** </AddedFilenameEnding>

The book gutter is the place in between the two pages you can read without turning a page. This classification will only apply when the image is mainly showing the content of one page (one side of a folio). There will always be another classification used with 'G', but the 'B' classification should only be used if there are two classifications other than 'G'. This can happen if there is a different classification on the main page than that seen on the across-book-gutter page or if there are two classifications seen on the across-book-gutter page. If the only classifications seen on the main and across-book-gutter page are 'F' (which is a frequent occurrence), 'B' shouldn't be used.

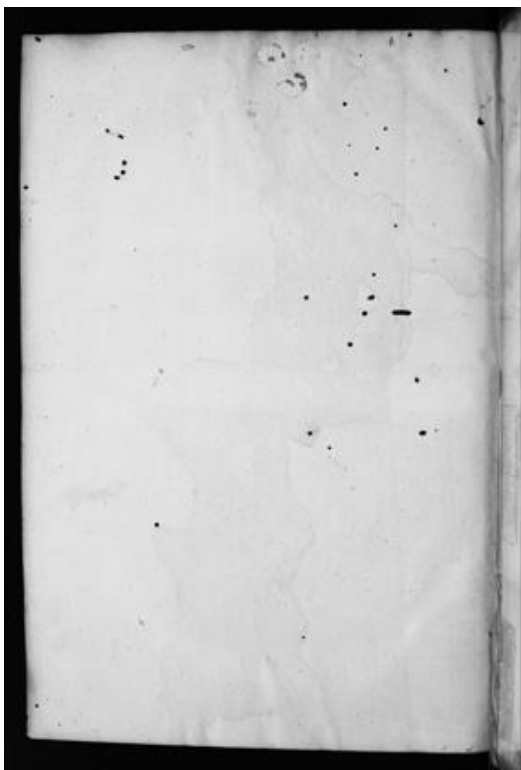


↑ 'G' and 'F' (but not 'B') ↓



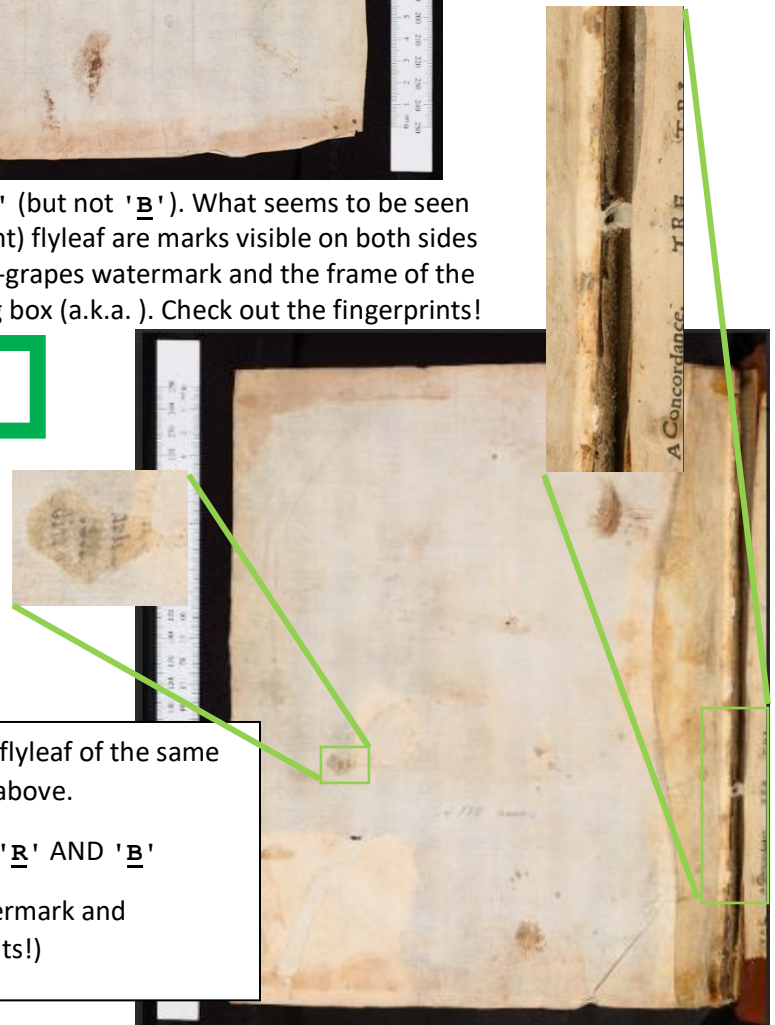
↑ 'G' and 'F' (but not 'B'). What seems to be seen thru the (front) flyleaf are marks visible on both sides of a bunch-of-grapes watermark and the frame of the paper-making box (a.k.a.). Check out the fingerprints!

REUSE OR OIC



The back-flyleaf of the same codex as above.

'G', 'F', 'R' AND 'B'
 (and watermark and fingerprints!)



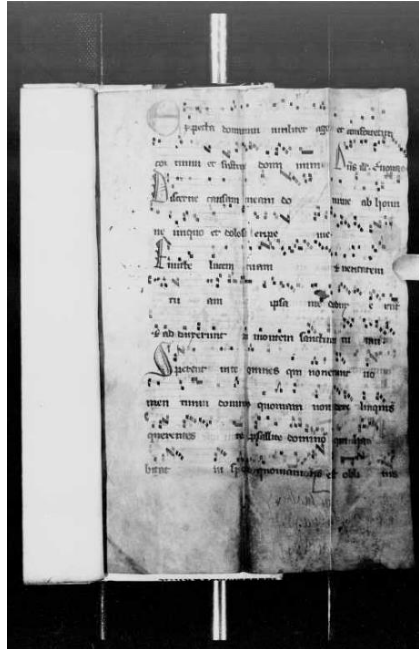
[Classification c10,] "wrapper reuse (4)"

```
<DisplayName> wrapper reuse (4) </DisplayName>  
<KeyboardShortcut> 4 </KeyboardShortcut>  
<DirectoryName> Wrapper_Reuse </DirectoryName>  
<AddedFilenameEnding> wpr </AddedFilenameEnding>
```

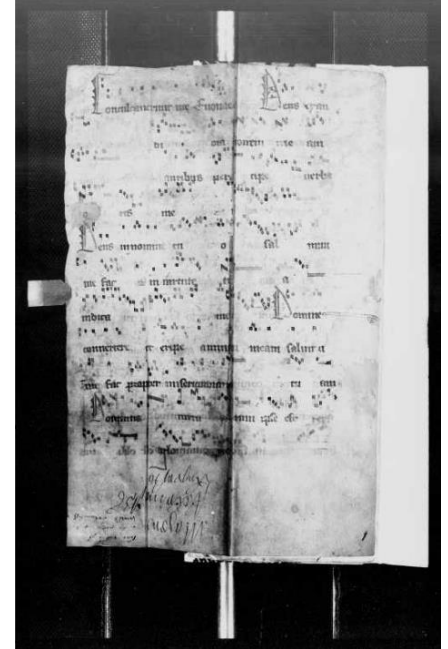
The definition of wrapper will be clarified in the captions to the examples. Basically, a limp-vellum binding without sewing – think of using wrapping paper to hold some papers, but without sewing or taping, more like a folder. The '4' glyph is meant to evoke the folding of a wrapper, especially as would be done (into thirds) with our first example.



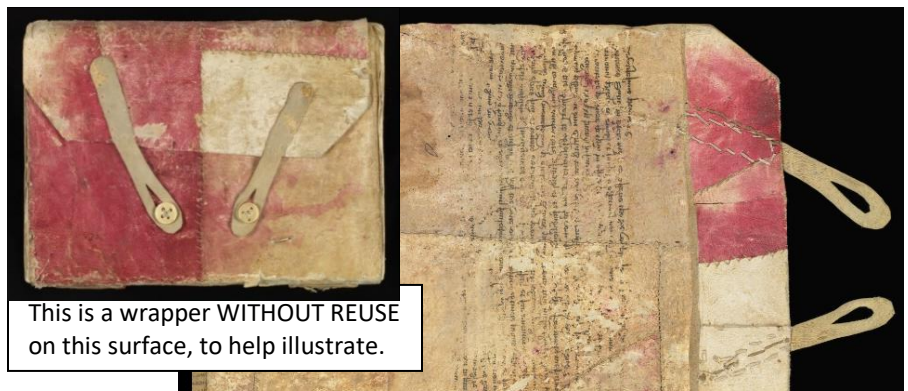
This is a wrapper – almost like a folder holding other documents inside. The binding outside can throw one off, especially without any context. Even w/o context, the lack of any visible sewing would cause me to classify this as '4'. The new binding is now holding what the old wrapper used to hold. I can't tell if the old wrapper is sewn into the new binding or simply inserted. (I suspect the former.) Either way, this same piece should receive 'F'. Also note the 'W' on the bottom of the new binding, or at least what I'd like the algorithm to classify as 'Wraparound reuse'. Hopefully more clarity will come with the two images to the right of this one, which are two of the several images that precede this image in the repository. The image above is image 40 in the DGS. Also 'B', 'J'



This is image 38 in the DGS. None of the surface shown is visible on image 40 (the one to the left). However, the two folds leading to three (surrounding) protective surfaces are readily apparent. Label '4' and 'F'. If it weren't for (what I'm not thinking is actually) 'W' but which I want the algorithm to identify as 'W', we wouldn't need a 'B'. As things are, '4', 'F', 'W', 'B'.



This is image 39. Note the *Dominus* with the long manicule (pointer finger) directed towards it, the same *Dominus* visible on image 40. Here, I can see that what I was calling W is actually not wraparound. However, this should not change the other classifications, since each image is to be classified as if no other outside information were known. '4', 'F', but not 'B', because it's the same piece of writing surface getting the '4' & 'F' labels. (My executive decision)



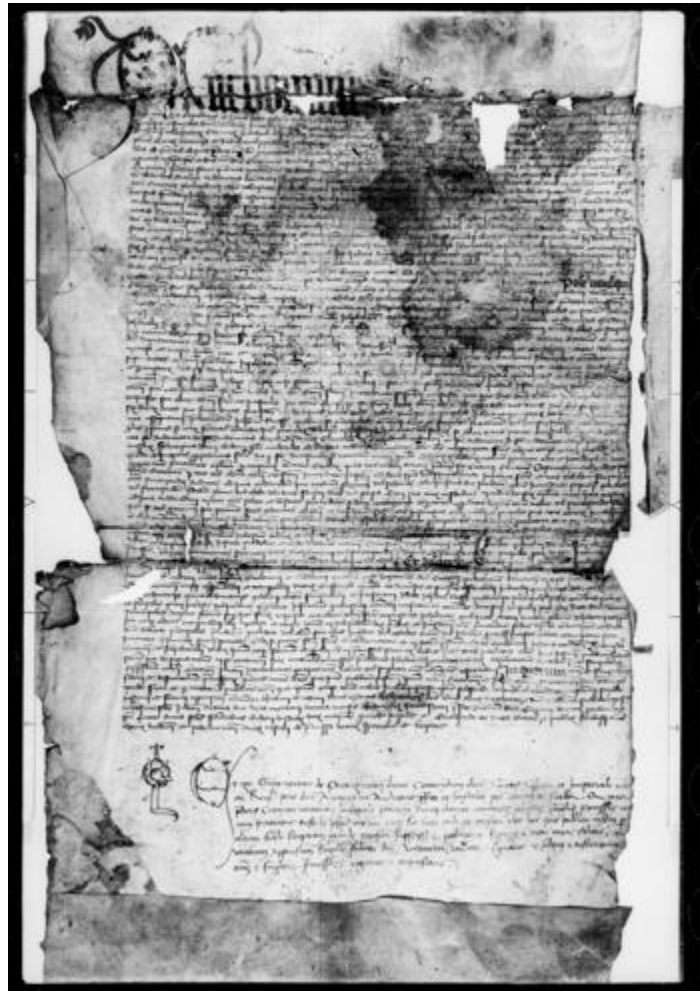
This is a wrapper WITHOUT REUSE on this surface, to help illustrate.

This is the same wrapper, partially unwrapped, and showing reuse. It helps show the concept of a wrapper, especially as you see the lack of sewing between the pages of the "bundle" and the wrapper. It gets '4', 'F', 'B'.

[Classification c11.] "~~not in situ reuse coVer~~" Combined into c15 (Keyboard Y)

<DisplayName> **not in situ reuse coVer** </DisplayName>
 <KeyboardShortcut> **V** </KeyboardShortcut>
 <DirectoryName> **Not_In_Situ_Reuse_Cover** </DirectoryName>
 <AddedFilenameEnding> **nsc** </AddedFilenameEnding>

Blah, I know it, but not so well as I thought.



There's one that looks really nicely like the brown-paper book covers we made at school.

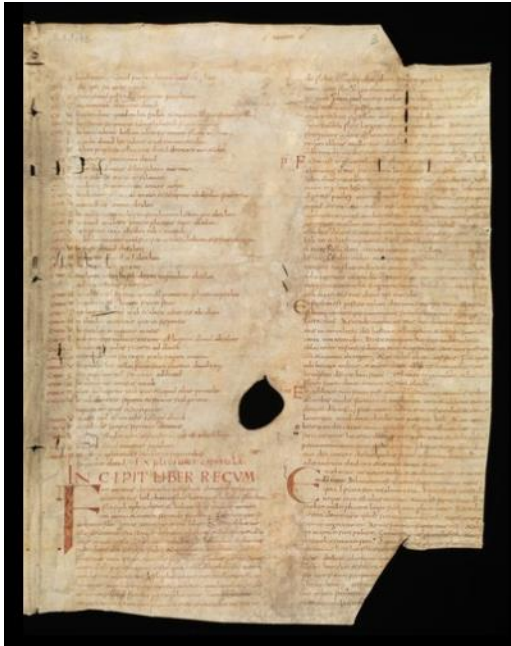
Front matter or cover (?) Title up middle (?)

Okay, Dave realizes he's not specialized enough to know beans about differentiating this not-in-situ stuff. 'v', 'a', 'g', and 'z', will be combined for scoring. Pick <didn't make a pick> for any/all of them, I don't know why I picked that one. In fact, let's just call 'v' general in-situ stuff, because I'm kind of saying "whx?! (can't I figure this out?)".

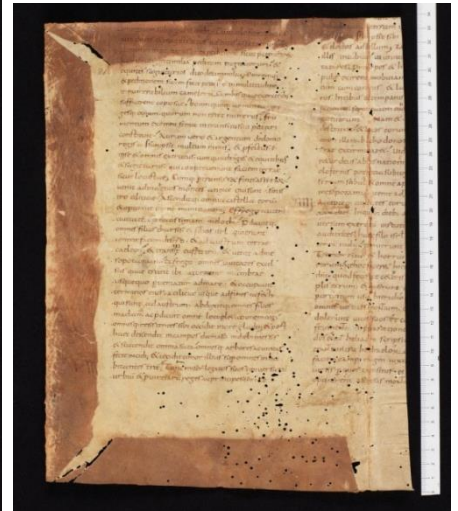
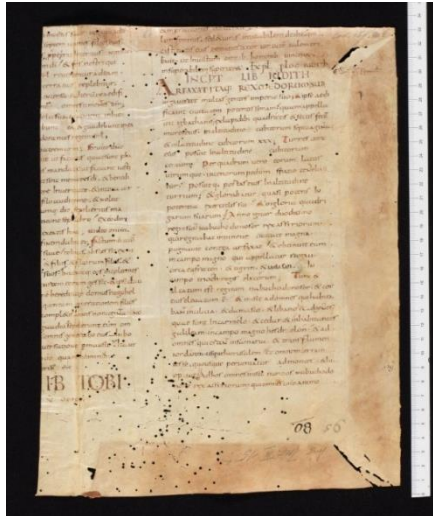
[Classification c12,] "~~not in situ reuse front-back~~" Combined into c15 (Keyboard Y)

<DisplayName> **not in situ reuse front-back** </DisplayName>
<KeyboardShortcut> **A** </KeyboardShortcut>
<DirectoryName> **Not_In_Situ_Reuse_Front-back** </DirectoryName>
<AddedFilenameEnding> **nsf** </AddedFilenameEnding>

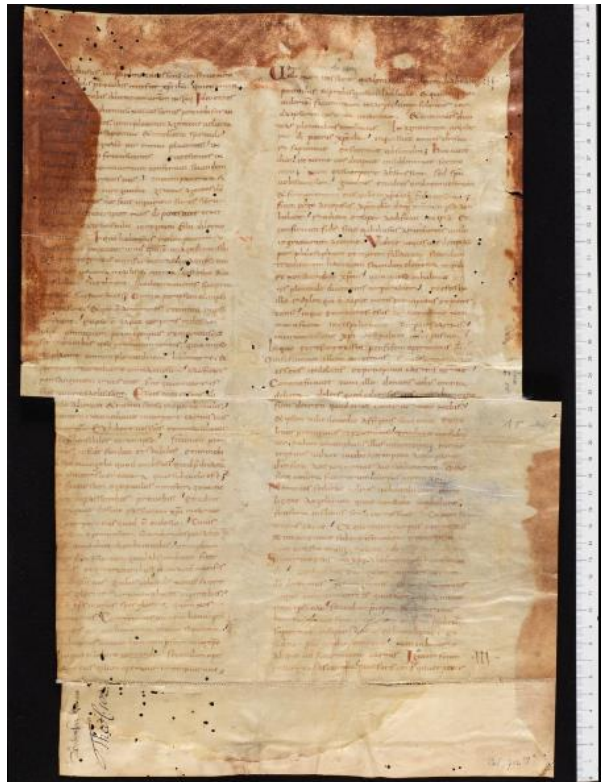
Blah, I know it, maybe ...



Seems like front-matter to me, since you can see the places where the connecting and guard reuse came through from the gatherings of pages



Two sides of what was a pastedown; more paste on the verso.



This one shows how one original sheet (the reused sheet) can be used for front matter at the beginning *and* end of a codex. And it has some nice, yellow embroidery.

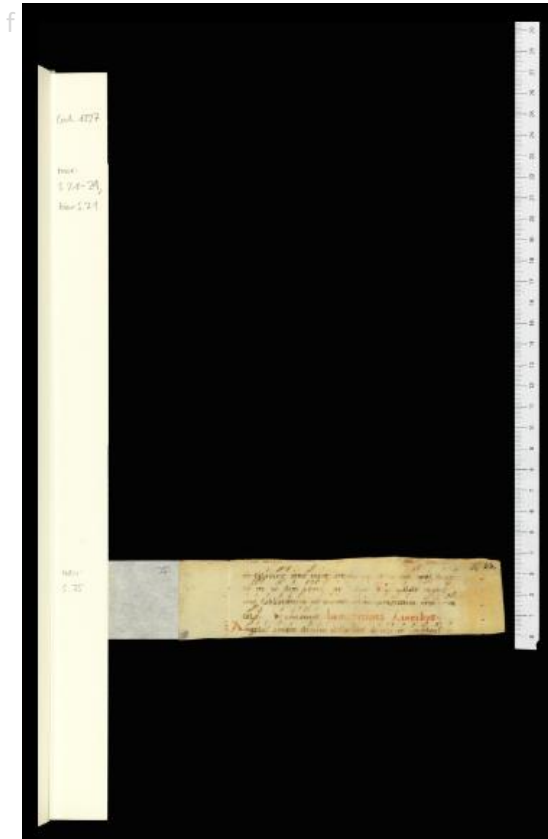
Okay, Dave realizes he's not specialized enough to know beans about differentiating this not-in-situ stuff. 'u', 'A', '9', and '7', will be combined for scoring. Pick <didn't make a pick> for any/all of them, I don't know why I picked that one. In fact, let's just call 'u' general in-situ stuff, because I'm kind of saying "why?!? (can't I figure this out?)".

~~[Classification c13,] "not in situ reuse spine protection (9)"~~ Combined into c15 (Keyboard Y)

```
<DisplayName> not in situ reuse spine protection (9) </DisplayName>  
<KeyboardShortcut> 9 </KeyboardShortcut>  
<DirectoryName> Not_In_Situ_Reuse_Spine_Protection </DirectoryName>  
<AddedFilenameEnding> nsp </AddedFilenameEnding>
```

Blah, I know it; wait, maybe not.

I don't know how many of these there are going to be, and even if I did, I don't know if I could ID them.



Okay, Dave realizes he's not specialized enough to know beans about differentiating this not-in-situ stuff. 'v', 'a', 'g', and 'z', will be combined for scoring. Pick <didn't make a pick> for any/all of them, I don't know why I picked that one. In fact, let's just call 'x' general in-situ stuff, because I'm kind of saying "whx?!?" (can't I figure this out?).

~~[Classification c14,] "not in situ reuse connecting guard (7)"~~ Combined into c15 (Keyboard Y)

```
<DisplayName> not in situ reuse connecting guard (7) </DisplayName>  
<KeyboardShortcut> 7 </KeyboardShortcut>  
<DirectoryName> Not_In_Situ_Reuse_Connecting_Guard </DirectoryName>  
<AddedFilenameEnding> nst </AddedFilenameEnding>
```

Blah, I know it; well, I think so. Maybe not.



Some of the reuse
that you see in the
middle of the book,
and some nice,
yellow embroidery

Okay, Dave realizes he's not specialized enough to know beans about differentiating this not-in-situ stuff. 'u', 'a', 'p', and '7', will be combined for scoring. Pick <didn't make a pick> for any/all of them, I don't know why I picked that one. In fact, let's just call 'u' general in-situ stuff, because I'm kind of saying "why?!? (can't I figure this out?)".

Other classes to be used later in Manuscript Studies things

Possible number/Dir Name		three-letters
c50 / Stitching_Any_Type		stc
Should later be moved into one of the following three		
c51 / Stitching_Level_1		st1
(parchment maker, basic repairs with twine,		
no-longer-there veil stitch holes,		
... anything else I think of)		
c52 / Stitching_Level_2		st2
(beyond basic twine, hole stitch, not embroidery,		
baseball stitch, green Vs,		
... other things maybe)		
c53 / Stitching_Level_3_Embroidery_etc		st3
(Embroidery, in-place veils, other fancy,		
... and blah and blah and blah)		
c54 / Manicule		man
c55 / Non_Manicule_Nota_Bene		nmn
c56 / Fingerprint		fgp
(Has to have loops/whirls, or at least visual		
separation between the grooves		
... any other details)		
c57 / Hair_on_parchment		hop
(Meaning animal hair, like in the holes of the		
parchment, or even still looking like fur/wool		
on a used page)		
c58 / Very_Visible_Watermark		vvw
c59 / Not_For_Binding_Reuse		nfb
c60 / Iron_Gall_or_other_Corrosion_Thru		igt
c61 / Squished_Bug_Remains		sbr
c62 / Alphabet_or_Pen_Trials_or_Counting		apc

Still thinking about

Portrait of Scribe

Portrait of Illustrator/Illuminator

Portrait of Parchment Maker

Portrait of Reader

Portrait of Binder

Portrait of Paper Maker (different ones, here)

Portrait of Printer

Line Drawing

Kinds of Clothes

Missing Initial/Illumination (Marked or Unmarked)

Parchment Animal Veins

Pop-ups, rotating thingies (there's a technical term), etc.

Non-Commentary Marginal Notes

(Not quite same project, I think) abbreviations (let's get completeness)

NSFW (some of those are pretty bawdry, but also look for understanding of human body)

Hole Which Had Initial or Image Removed

Bookmarks – either the ones with string that can rotate or the ones sewn on edges

Difficult (?) Anything Left Inadvertently (Lost)

A Wolf Preaching to Sheep (I wanted to find this, once, but couldn't find it)

Crucifixion Scene

Some study of bookworm, rat, etc. holes

Monk/scribe food in codex

Unique stuff not strained out of paper

Pressed flowers

Anything related to the pope being crossed out (supposedly common in English books around 1570+, but I haven't found one, yet, as of 2025-05-06).

Crumpled pages put back in (Marks of frustration)

Other levels of iron gall (and other) corrosion from that one description. Need expert

Palimpsests. Need expert

Hiding defects with illustrations or creative text things

Inserting missed parts of text

Adoration kiss or indignant scratch

Prussian blue (trying to find palimpsest)

Wound man (include Zodiac man/woman here, too?)

Astronomical bodies/digrams

Maps

Letter as instruction for an initial (whether the initial is there or not, should count if guide letter is visible)

Speech scroll things (like precursor of speech bubble)

Veins (veined parchment)

Family trees

The things on the side that act like quote marks for a section

Erasures, well not so much erased as scraped out with pen knife, (and sometimes re-doing of text)

OTHER IDEAS

Microfilm damage, Duct tape, Human hand (gloved, fuzzy-gloved {Bigfoot}, watch, ring), Page being turned (shutter open for too long and/or page turned too fast at wrong time, Roman numerals (different forms), Hindu / Arabic Numerals (early vs. late), Greek Numerals, Russian Numerals, etc. Charters in decorative MSS. Candle wax drops (definitely need expert). Drool from sleeping (definitely need expert). Hints of reuse that could be imaged with Macro X-ray fluorescence (MA-XRF) Multi-Spectral Imaging (MSI), other penetrative imaging – giving them some good ones to try on, whether the hints be small groups of ink-colored pixels in the structure of text OR some hint in the structure of the binding that is more likely to have possible-to-find-with-penetrative-imaging reuse (*definitely* need expert, even for some ground truth).

[Write others to put in these documents later]

Things to find for contrastive examples (named as 'Important_as_Counter_Example', because I couldn't come up with the word, contrastive, though I knew that the word, differentiating, was wrong, when I was editing the classifier.param file). I think that quite a few of these will involve languages/scripts. I know I found some first pages with Latin where the reuse-as-paste-down was Greek, and such things will be good.

A mixed language-and-not example: I found some negative examples for binding reuse that have big Hebrew text and big film holes on the side; I don't want the algorithm to think the large Hebrew characters or the big film holes are what characterize negative for binding reuse. Perhaps more importantly, I don't want it to classify an instance of reuse that happens to be with large Hebrew text and/or big film holes as being non-reuse, just because no examples of positive-Hebrew-holes are in the dataset.

Big film holes visible.

Smaller images – find out usage for collections on reddit, Flickr (especially Yale's), blogs, pholder, photographs from microfilm machine, phone pics of manuscripts (need to contact BYU's, U of U's libraries), pics of books with examples.

Scans of books with examples. Pics and scans of local library facsimiles.

[Write others to put in these documents later]

Possibly one-offs until later (usually things found discussed or imaged in books, sometimes found in images)

Early illustration showing shadow (need to figure out which audio-book)

Upside-down “brand” in after-Caxton-guy’s kid’s book from printing, now as reuse (need to find audio book)

Pop-up made out of reuse – find that one medical/anatomy book. Book is printed, pop-up is from MS

Interesting sociological/demographic, e.g. the lady’s Gilded (Manuscript) book talking about dark-skinned man.

[Write others to put in these documents later]