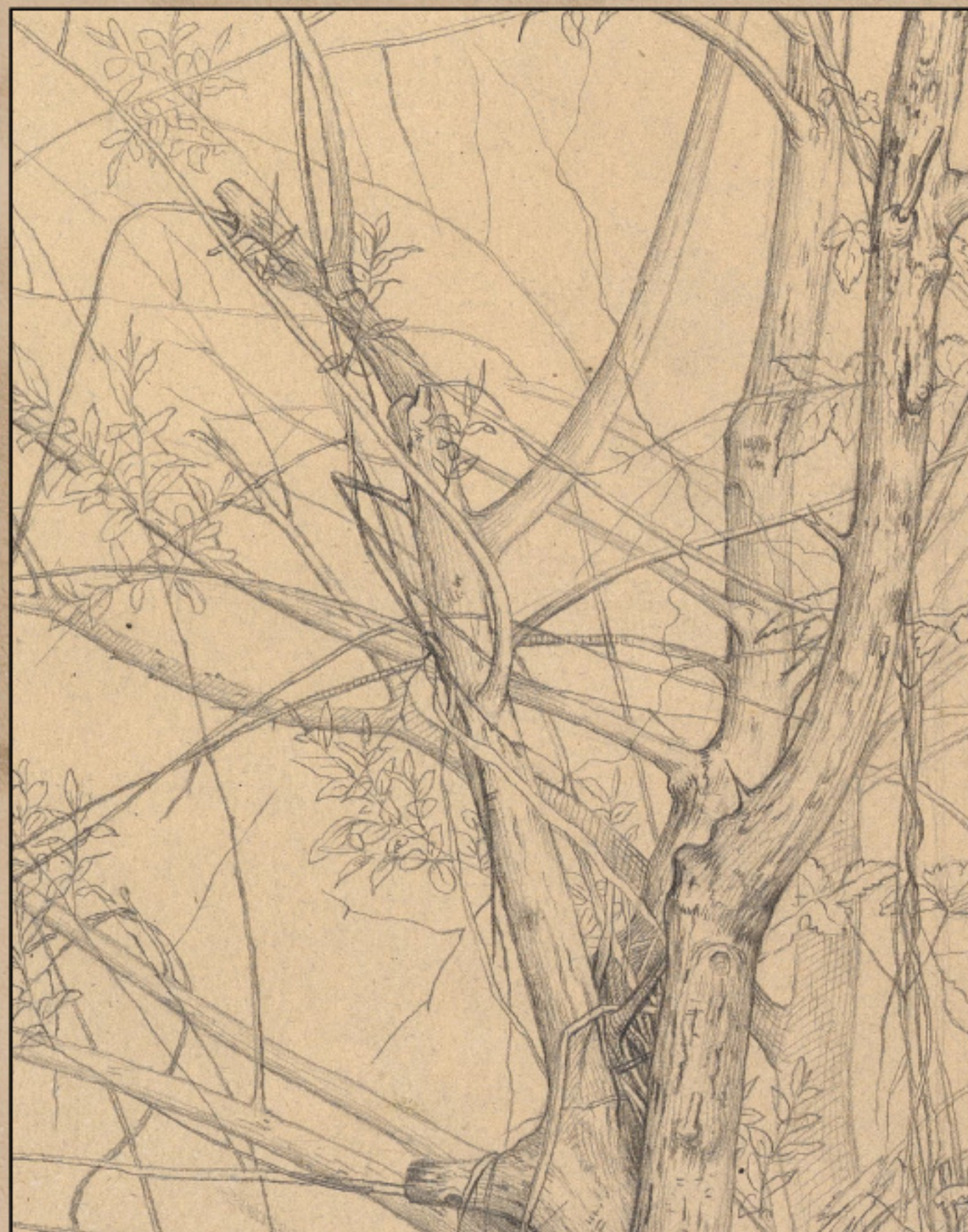

Pencil

Once the graphite deposit was discovered in Cumbrian the early 15th century, metal-point drawings became rare and finally obsolete as the invention of pencils took over.

Early pencils were wrapped in string or animal hide to improve stability; the first wooden casings were made from hollowed-out pieces of juniper, later replaced by two wooden halves glued together around the core.

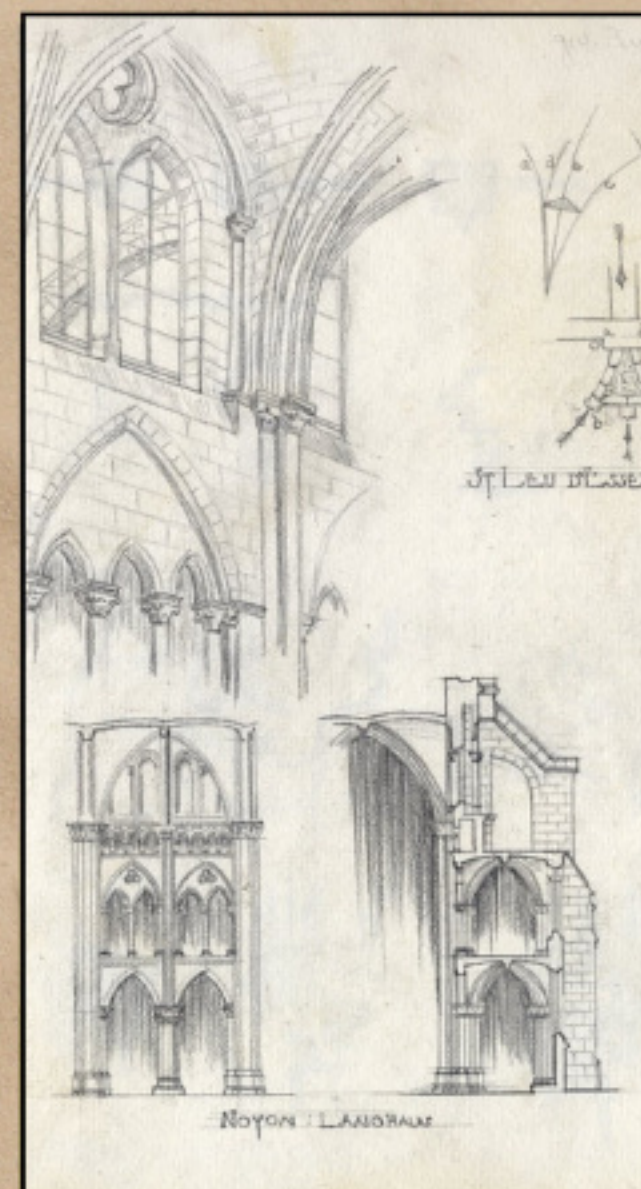
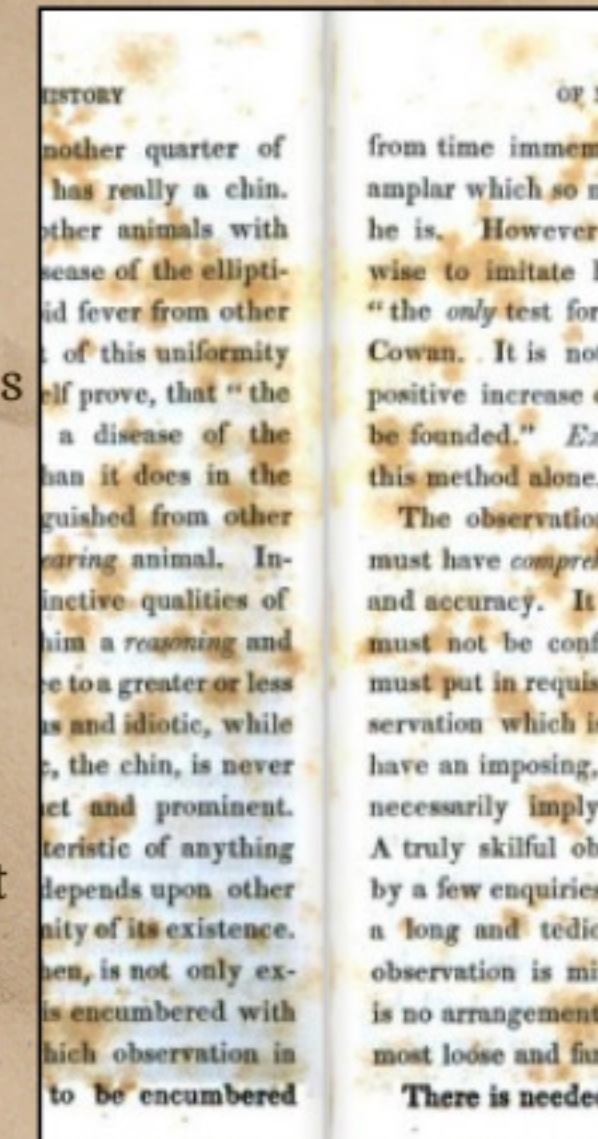


Signs of Damage

Pencil, particularly on paper, has many signs of deterioration, such as yellowing, fading, or browning of the paper.

Friction can cause pencil marks to fade over time.

Pencil itself is fairly stable but the paper is vulnerable, one of the most common issues being foxing, a red-brown speckling that can worsen with time.



Damage Prevention

Avoid touching pencil work as it is more susceptible to fading and smudging.

Paper may suffer from acid staining, to better preserve they are typically framed with low pH conservation grade materials.

To avoid moisture damage, humidity is kept at around 50%.

Unlike colour artworks, drawings created solely in pencil are generally safe to display without concern about fading. This applies only to pure graphite pencil work, however, as other types (such as those containing a fixing agent) may still be affected by UV light.

Manuscript Media



Parchment was reserved for important works as it was expensive and time-consuming to make from animal skin, therefore ink was most commonly used, not pencil.

Paper can be ripped or damaged easier than parchment so when looking at manuscripts written in pencil, minimal handling is recommended.

Chalk and Pigment

Illuminated manuscripts were created with a variety of bright pigments, such as ground lapis lazuli for blue or cinnabar for red. Pigment was used to decorate and add colour to manuscripts.

Chalk is a form of limestone that is composed of calcite.

Signs of Damage

Pigment does not dye the paper or parchment, it sits on top of it leaving it likely to flake or chip away over time.

Chalk is fragile and can be easily smudged or flaked away without careful handling.

Without wearing gloves, the natural oils on our hands risk damaging these works.



Manuscript Media



Damage Prevention

To avoid damage it is recommend to never touch chalk or pigment surfaces directly, keeping manuscripts flat, and supporting them with acid-free board during handling to avoid smudging or pigment loss.

Brush consolidation is a technique used to re-adhere loose pigment to reattach them.

Chalk was used on parchment to brighten the pages and make them smoother for writing by removing any surface grease.

Historically, works on paper were rarely displayed on walls because, without the protection of glazing, they were highly vulnerable to damage. As a result, antique pastels and chalk drawings may face new risks when they are framed and exhibited for display.



When parchment is adhered to a rigid mount for storage or display, it cannot expand and contract as it naturally would. Restricting this movement places stress on the material and can result in tears, perforations, and areas of loss.

Works on paper are at high risk of mould, as their porous surface can attract moisture in a humid environment.

Iron Gall Ink

The solution is initially colourless, but when it is applied to paper and exposed to air, it oxidizes, forming ferric tannate, and turns brown.

It was the primary writing ink used throughout the Western world from the 12th century until the beginning of the 20th century.

Iron gall ink is blue-black and permanent. Unlike carbon ink, it etches the writing surface and can't be easily washed off, quickly making it the preferred ink for writing on parchment.

Signs of Damage

Gradual change in the ink colour from black to brown.

Development of haloes and ink striking through paper.

Friability or cracking of ink.

Ink falls out of the paper entirely.



Damage Prevention

Deacidification - neutralise acids which stops acid hydrolysis.

Splitting - treatment of manuscripts by splitting the paper and inserting a new stable core between the two layers of paper is a technique developed in Germany.

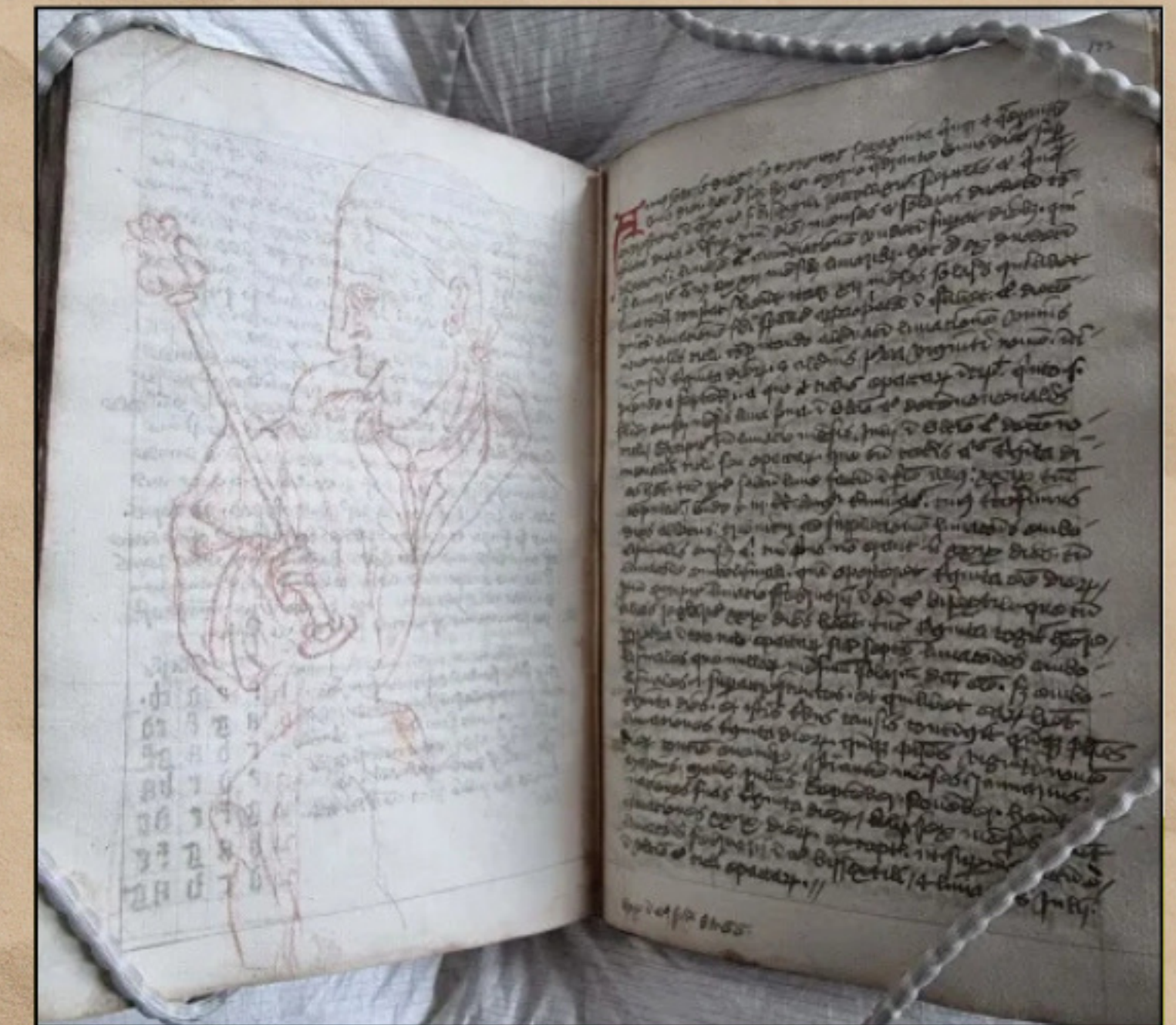
Non-treatment consists usually of strict climatological control and an acid free environment.

To be handled with minimal damage, manuscripts are kept in cool, dry and dark conditions.

Hands should be washed and thoroughly dried to avoid moisture.

Handling should be kept to a minimum to ensure no further damage is caused.

Manuscript Media



You should take care touching these manuscripts due to their fragility.

They are typically placed on a support block and pages are held down with snake weights or clipped carefully but avoiding any writing or decoration on the pages, especially on parchment as ink tends to sit on top unlike paper where it absorbs.

