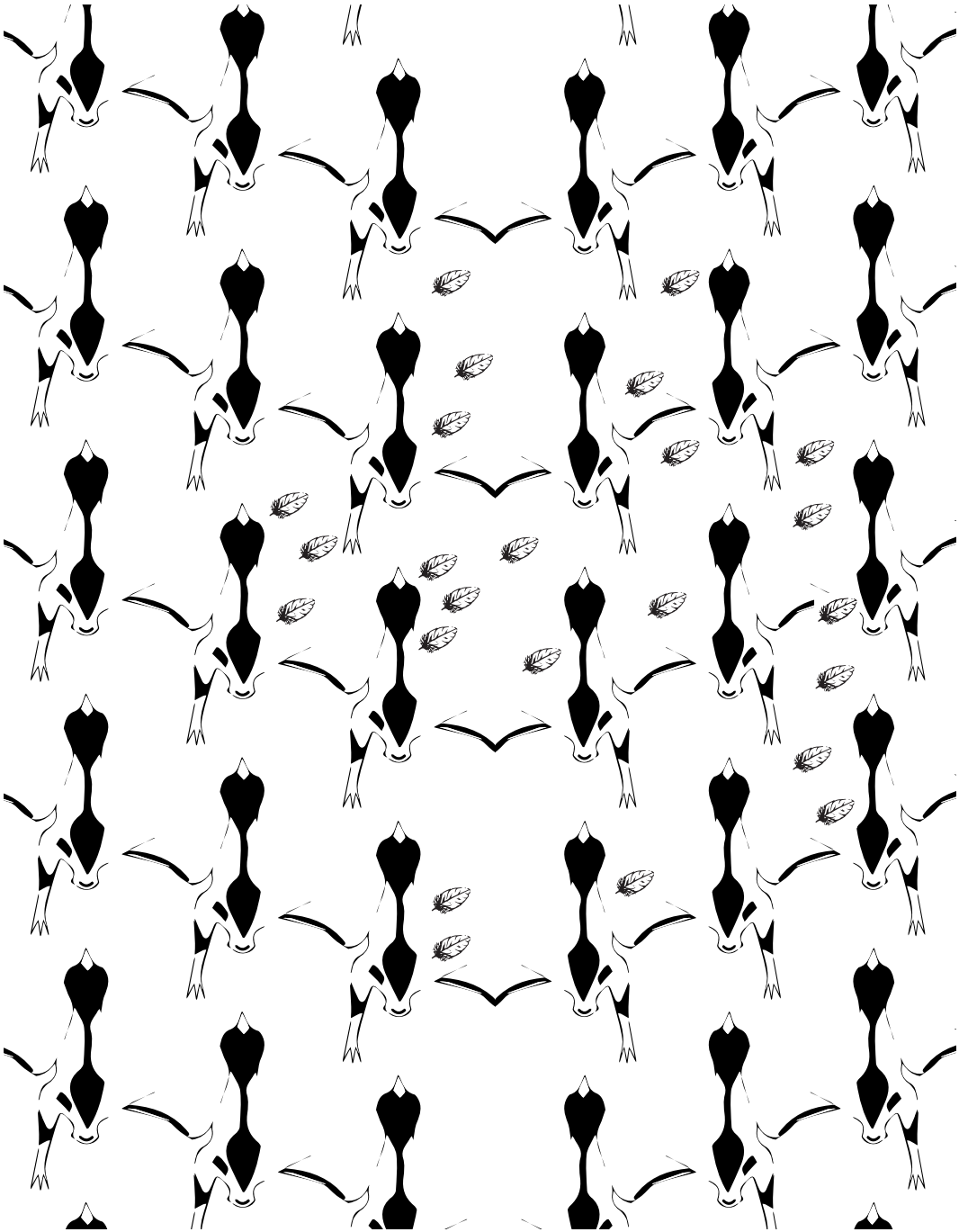
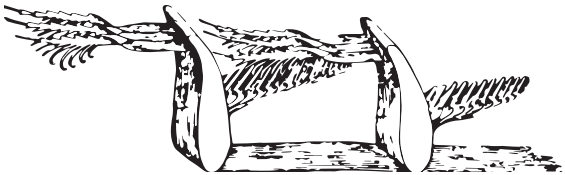
Kramatextiles I



II.



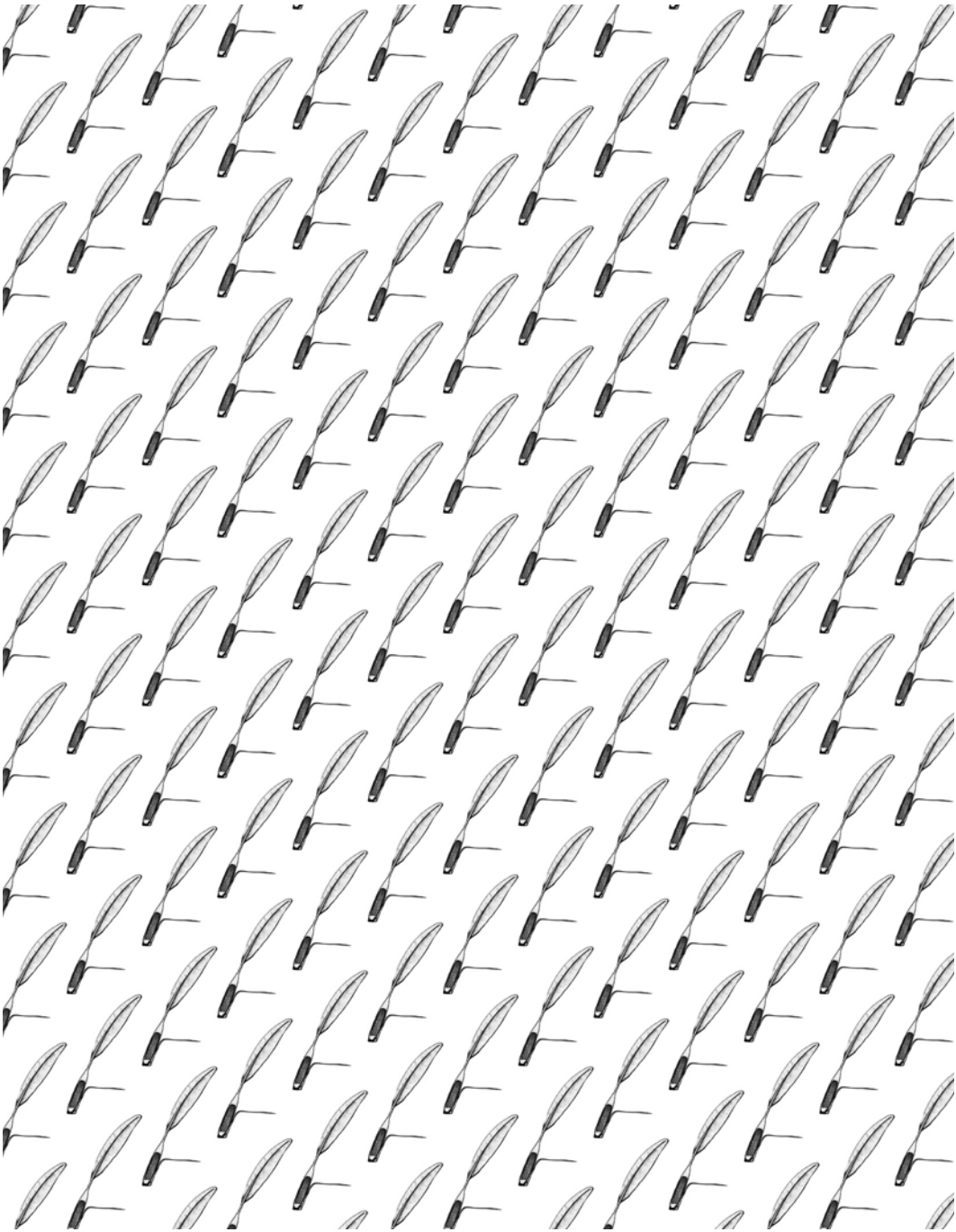
A graphic Catalogue*

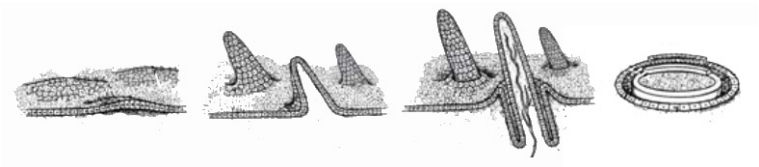
Chapter V contains a graphic cataloge *About Feathers; which collects visual and conceptual information on feathers gathered during the period of research. The sources are listed at the end of this documentation booklet; graphics are digitalised intervened references and photographs are taken by the artist unless clarified in Books and Resources.
The intention of such illustrative reference is to give the reader a compact and concrete background about feathers: an introduction to the complex subject from a structural and graphic perspective.
Through this compillation of graphics the issue of interlocking was analized from a microscopic aswell as macroscopic point of view. The biomechanics happens inside a feather between its microoscopic parts but also between the feather plumage and the birds bone structure at another scale.

V.

#graphicStudies

About Feathers

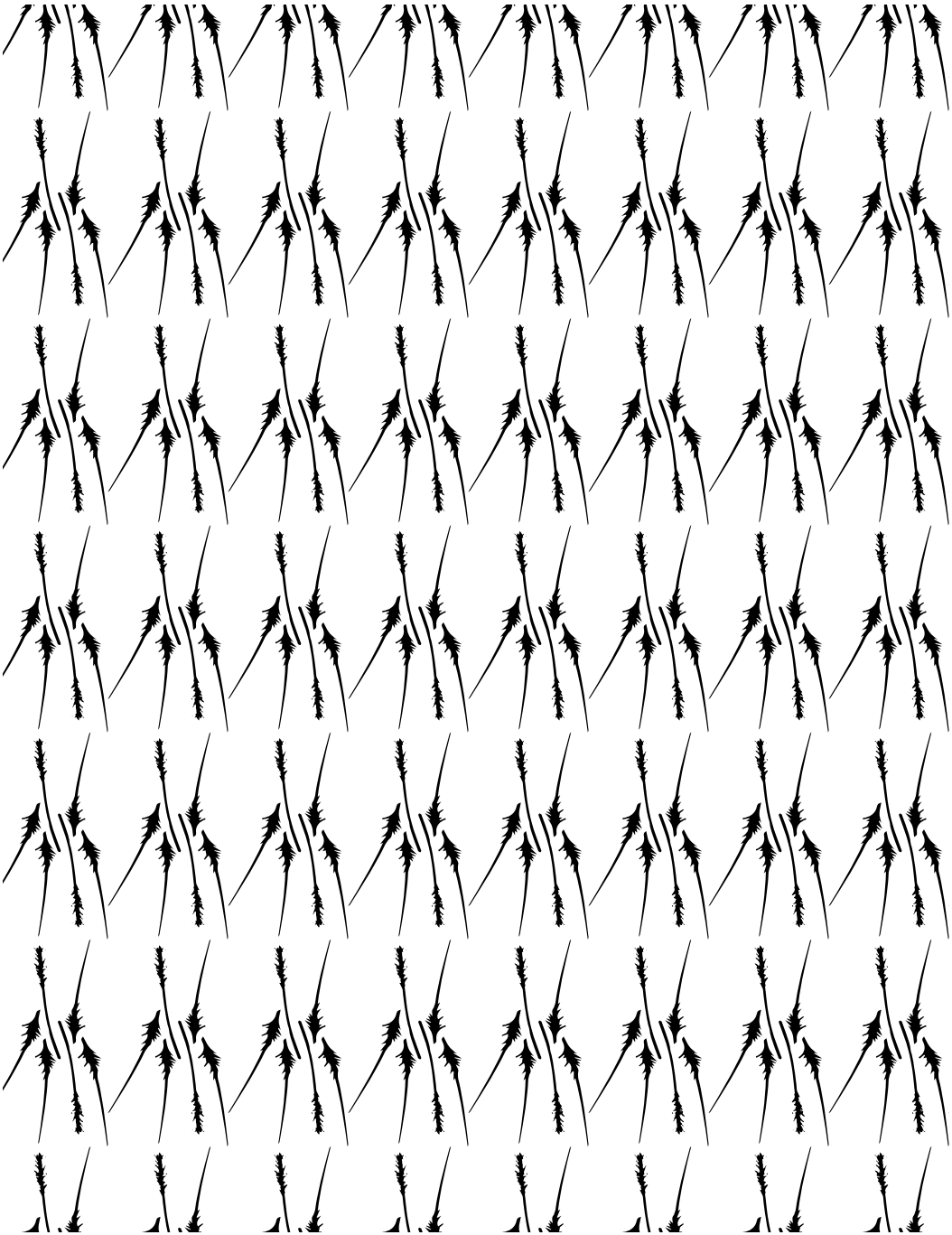


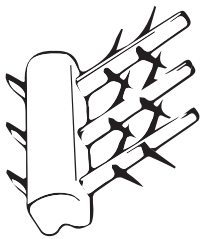


#strong #flexible #shaft #follicle
#keratin #melanine #carotene #molting

Feathers are some of the lightest but strongest materials in nature. They can withstand wind, rain, snowstorm, sunlight and collisions with tree branches but they are flexible too. You can bend a feather shaft and it will straighten back up.
They grow from a follicle inside the skin, just as hair does and are also made of a protein called keratin, melanine and lots of carotene, which give them their bright colors. The lower part of the shaft which is still attached to the skin is called the Calamus.

Feathers are dead structures at maturity, which are gradually abraded and replaced by a singular process of Molting. During this periodic shedding of old feathers new ones are produced inside the same follicle, where the new feathers pushes the old one out.

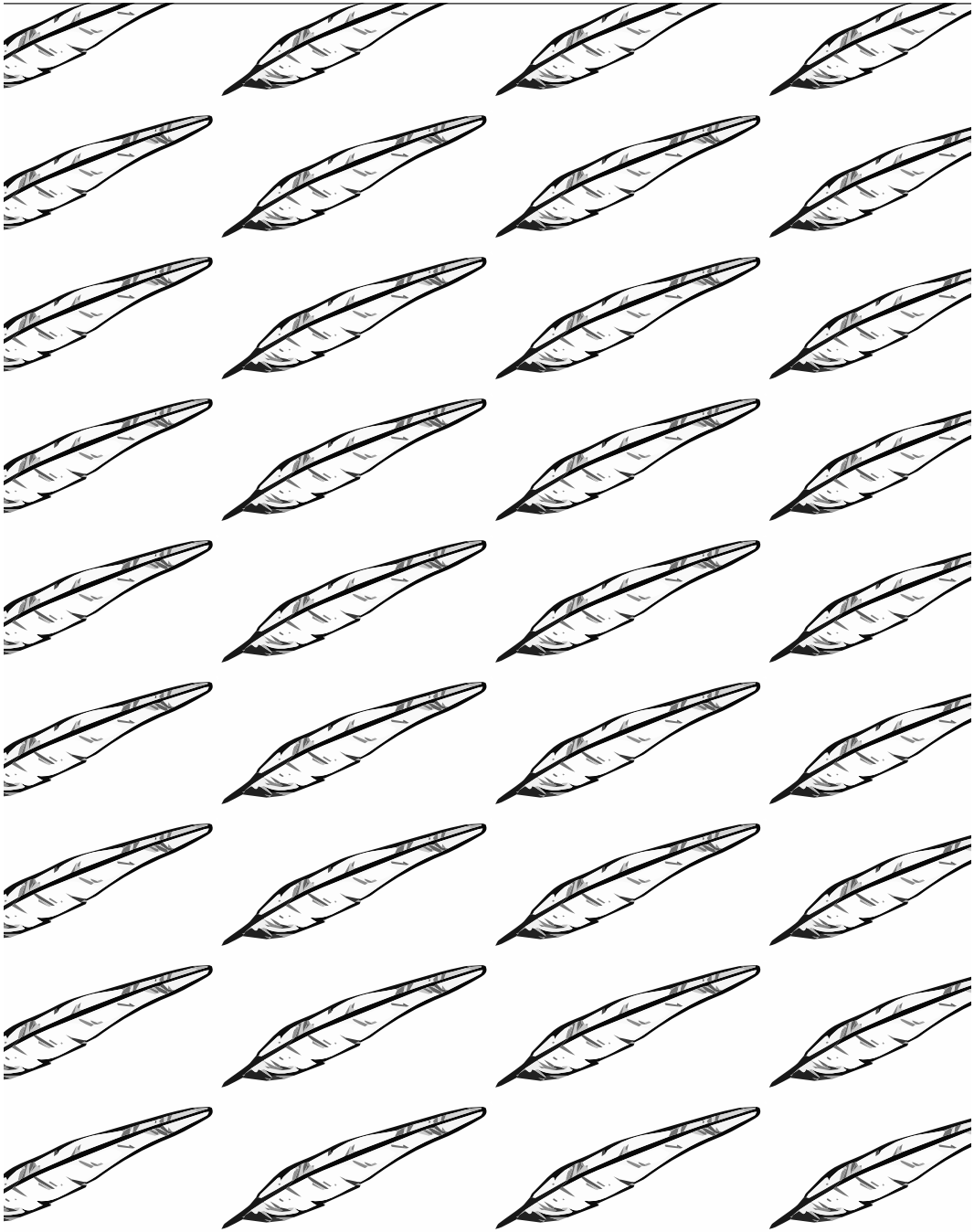




#tracks #calamus #rachis #barbs #barbules
#plumage

The Calamus grows to become the bird's shaft or Rachis and this divides into barbs composed of small barbules. This barbicules also develop some small hooklets which observed under a microscope reproduce this interlocing effect.

Feathers grow all over the bird's body but appear in well-defined patterns of rows called tracks.

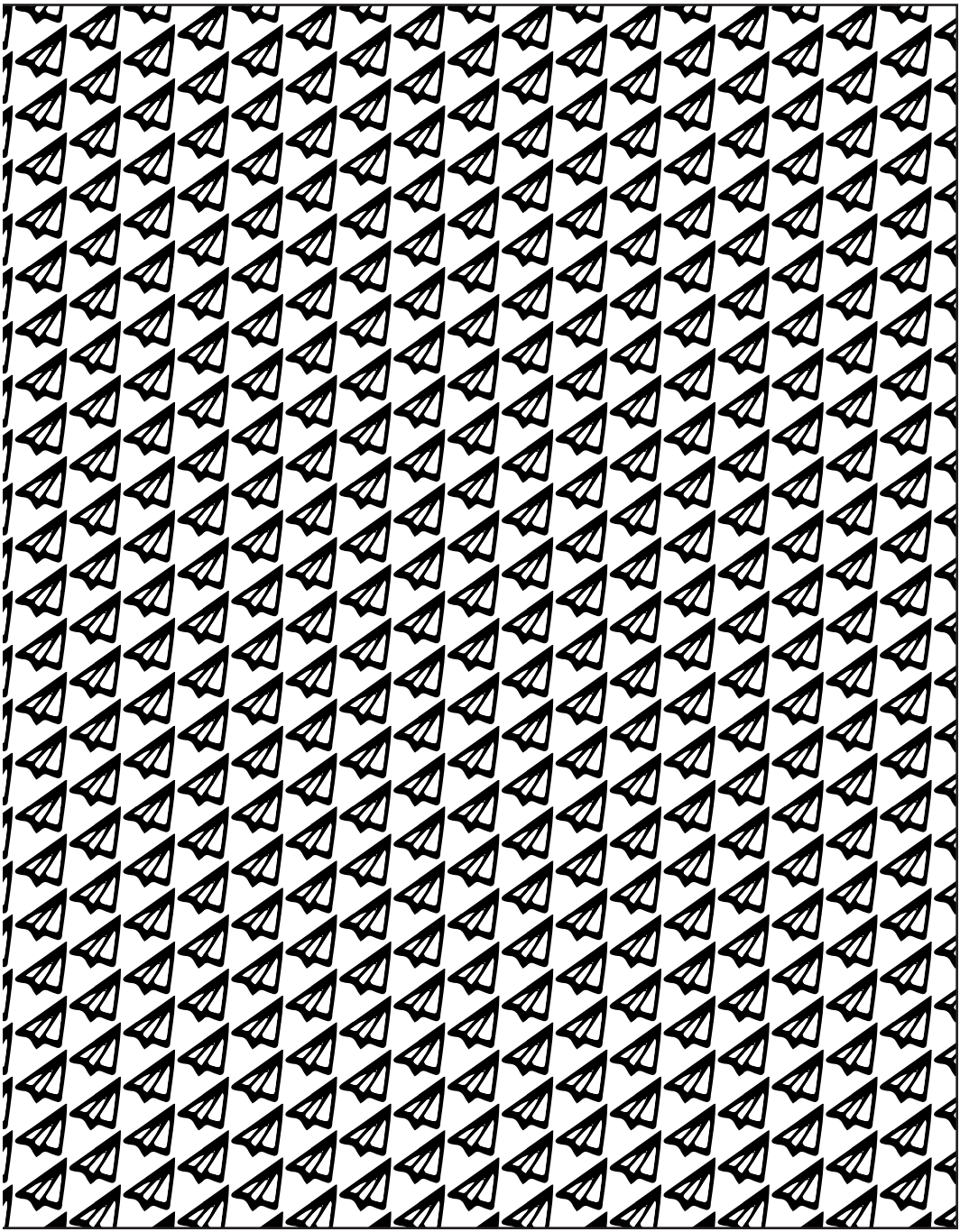


#Integumentary #epidermal
#pennaceous #plumaceous

The group of feathers form a distinctive outer covering called plumage which is a very complex integumentary structure at an epidermal level.

The plumage help birds fly, but they also help them show off, blend in, stay warm and keep dry. They are all made of the same basic parts that have evolved small modifications to serve different functions; depending on the body part they grow from.

They can be divided into Pennaceous which are flight feathers and Plumaceous or insulation feathers.



#flight #highspeed #stability

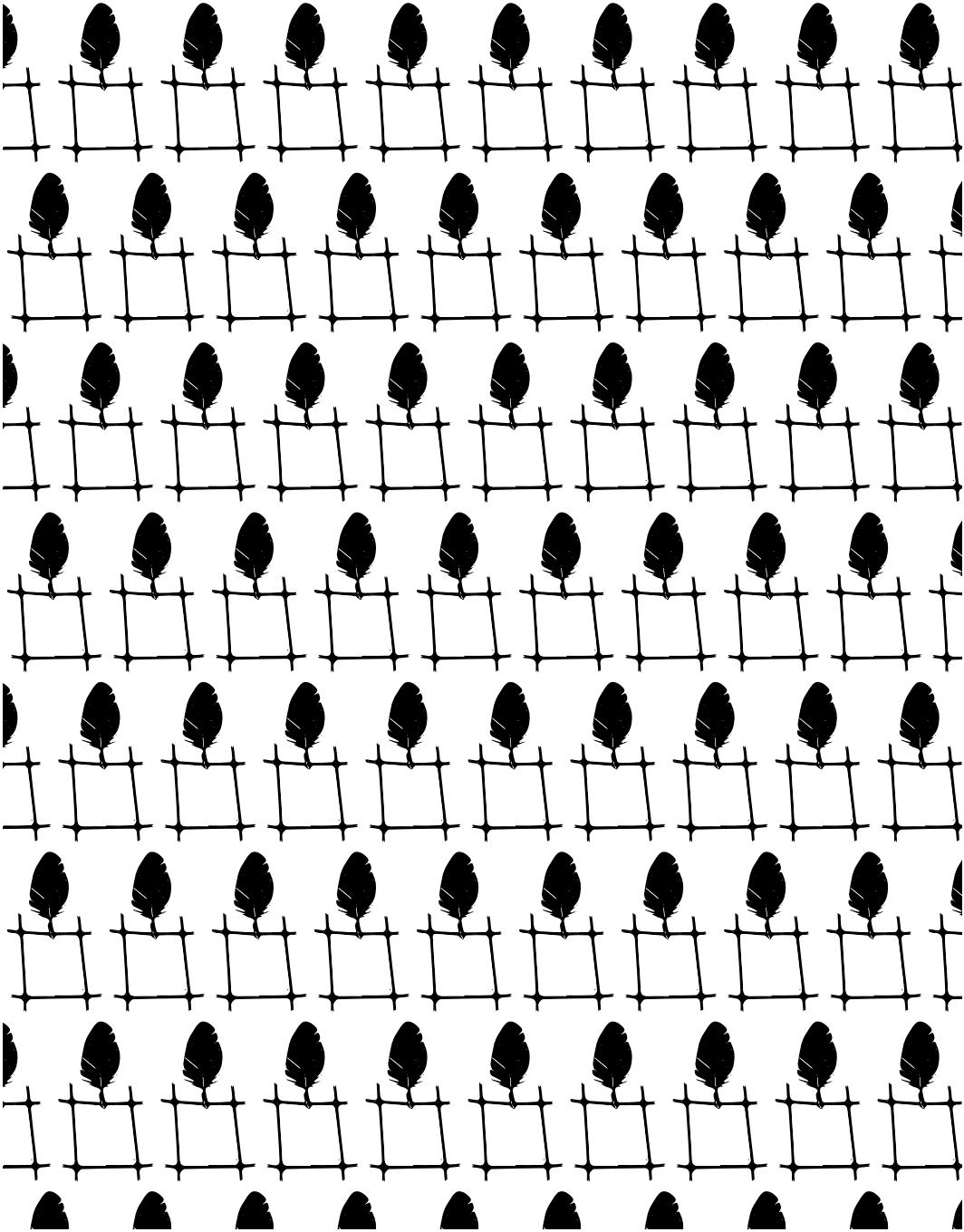
Flight feathers are extra strong and have specially shaped barbs that help keep them from being driven apart by wind, making them more suitable for high-speed travel. This contoured feathers (as oposed to plume feathers) can be found not only in the body but on wings and tail.

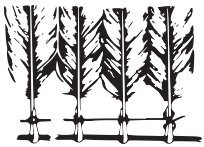
The flight feathers that attach themselves directly to the wing bone add stability for flight control and interlocks the skin tissue with the rest of the body in a very complex way. This feathers are extensions of some spinal bones connecting the inner live tissues to the "dead" exterior surface.

#paisley #design #patterns
#ornamental #endangered #species

The use of feathers as a design motif in Europe can be traced to the 14 th century in Italy where there is graphical reference of of the use of naturalistic ornamental patterns including flowers, vines and birds (petals, leafs and feathers).
During the 18th century textile manufacturing of Indian shawls developed a broad line of ornamental designs in the town of Paisley, Scotland. The most iconic reference is the mango shaped form of droplet which is a mix of leaf and feather, sometimes petal and fruit. A style of graphic and folk design developed until what we now know after "Paisley Design".

Colored feathers are since then coincidently very popular and the hunting of birds for decorative use thus the depretation of natural environments where they live has endangered some beautiful species.





#Birds #symbolism
#magic #garments #insulation

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Feathers grow only from birds and are often linked to a strong symbolism. They are believed to be bringers of messages and spiritual guides and their use can be traced to ancient cultures that worshiped and lived in balance with their organic environment.

Functional common uses include winter garments as well as bedding items because feathers are both soft and excellent at trapping heat.

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