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THE LOST ART OF THE HASHISHIN

The Workshop: Part 2

Science & Traditions

The trichomes we work with define the methodology and the tools we use. Now that we have covered a synopsis of trichome formation, development, and functions in Part 1 of this workshop, it is time to study the techniques of collecting Cannabis glandular trichomes and the instruments necessary to do so.

The oldest concentrate ever made was the live resin collected on the fingers of our distant ancestor while she was harvesting Cannabis seeds the first time since it is pretty much impossible to touch cannabis flowers without collecting resin on fingers and hands. Hand rubbing resin directly on the plant at the peak of flowering is surely the most ancient resin collection technique and is still practiced at the feet of the Himalayas due mostly to climatic conditions.

Words by Frenchy Cannoli
Images by IG @trichomeartstudio

It is relatively easy to collect fresh resin from live plants but a totally different challenge to harvest trichome heads when the flowers are dry and broken up.

The methodology used to separate plant matter from the resin glands and to collect the separated trichome heads depends on a customized tool made of perforations and a tightly woven fiber receptacle to catch and contain the fallen resin – the sieve. This traditional methodology of collecting Cannabis resin is called “Dry Sieving” and may be as old as agriculture (13,000 B.C.). The dry plant matter is agitated, and the fallen resin heads are separated from contaminants through the perforations of the tool. The process uses effort or force to separate the resin heads from the stalks, but this does not make it an extraction. The Capitate Stalked and Capitate Sessile trichomes are epidermal protuberances covering the leaves, bracts, and stems of plants and as such not part of the plant structural mass. An extraction uses a mechanical force or a solvent to isolate an element held in the mass of a medium as the following definition of the word clearly indicates.

“Extract, extracted; extracting; extracts (transitive verb)
• to draw forth (as by research) extract data
• to pull or take out forcibly extracting a wisdom tooth
• to withdraw (something, such as a juice or a constituent element) by physical or chemical process
• to treat with a solvent to remove a soluble substance
• to separate (a metal) from an ore”

Source: www.merriam-webster.com/dictionary/extract

The action of agitating Cannabis material forcefully with or without mechanical assistance to collect falling trichomes heads cannot be defined as an extraction from the plant matter. The methodology of detaching the resin heads from their stalks and separating the fallen trichomes heads from plant contaminants is named after the tool used to separate the material: The Sieve.

The following definition of the word has unspoken implications that are vital to the comprehension and optimization of the process:

“A sieve is a device with meshes or perforations through

the fragility of the plant material, the smallest touch creates contaminants. Quality is therefore defined by the final cleanliness of the resin heads collected. The maturity of the trichomes are a given in producing countries; the genetics are landraces grown for hundreds of generations in the same region. The planting and harvesting cycles have been fine-tuned to perfection season after season, generation after generation for thousands of years.

Each Hashish producing country has a distinct sieving technique and tools adapted to their methodology. However, the core principles of the sieving process are the same.

LEBANON

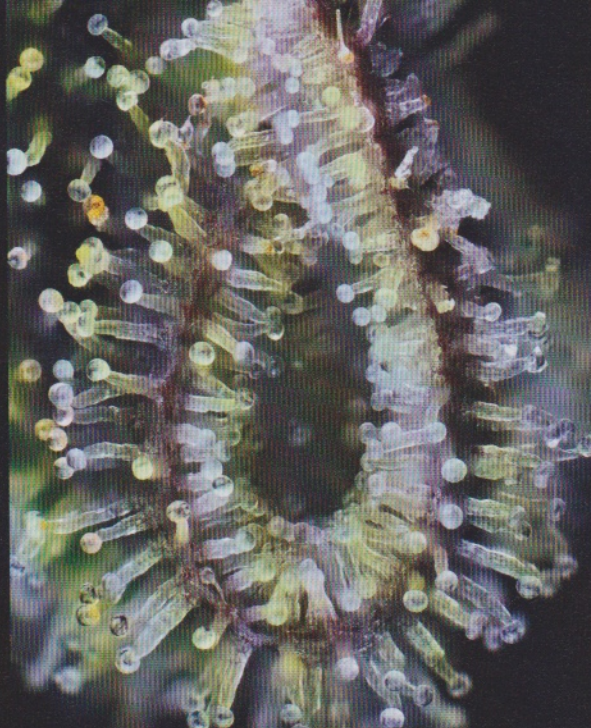
Lebanon has most certainly the oldest Hashish culture on the Mediterranean Sea; it is at the end of the oldest trading route on the Euro-Asian continent, the Silk Road. The Silk Road starts in China, goes through India, Afghanistan and Central Asia, passing through the three potential birthplaces of Cannabis, to end on the shores of the Mediterranean Sea, in Lebanon.

The sieving technique used in Lebanon is different from other producing countries; it is done in a closed room and more akin to separating the chaff from grains or sieving flour. Using a traditional sieving tool, a circular wood frame two inches wide covered with a tightly stretched sieving material, different size of sieves are used to separate the plant material from the trichomes by stage. With each successive sieving of the material, the resin is separated from the contaminants step-by-step defining quantity. Gentle handling of the material added to the use of the appropriately sized sieves have maintained Lebanese hashish excellence over time.

AFGHANISTAN

Afghanistan was the Mecca of Hashish with a long reputation for the highest quality, with traditions possibly going back to the mysterious and secretive origins of Hashish.

The main sieving equipment in Afghanistan is made of a large rectangular wood frame over which silk material is tightly stretched. A worker on each end shakes the frame, and a third handles the threshed material so that no material piles up in the sieving space. Dry sieving is done in the winter, in dry and cold conditions and usually in an open sheltered courtyard. The material is first lightly agitated side-to-side by the two handlers and hardly touched by the third so that as little contaminants as possible are created during this first light agitation. The resin from the first light sieving of the material is collected before a second handling of the material. This high level of purity is the First Grade. The material is agitated a second time, a little more forcefully by the two handlers as the flowers are gently broken down by the third person which starts to create contaminants and is therefore classified as Second Grade. The material is agitated a third time with an up-and-down motion and side-to-side movements to facilitate separation as the material is broken up further for the Third Grade. The agitation at that level remains the same going forward. However, the handling of the



material becomes step-by-step a little stronger each time, from a light caressing pressure to a more forceful hand spreading of the material over the perforations of the sieve. The harder the touch, the higher the potential contaminants will be created.

A wide bowl with a silk or nylon material tightly stretched over it to contain the collected resin and minimize impurities is also used in Afghanistan. It is more adapted to processing smaller quantities of flowers for their seeds while collecting the resin or processing imperfectly sieved resin to enhance the level of purity. The principle remains nonetheless the same, the bowl with the sieve material stretched over it is held at the slight angle with a receptacle

under it to receive the falling material. The flowers are placed on the higher part of the bowl, and by tapping with one hand on the stretched sieve like a drum, the flowers bounce gently over the perforations detaching trichomes heads from their stalks before separating and falling through the perforations to the receiving container below; the resin is collected before further processing. The drumming remains the same, but on the second pass, the flowers are starting to be broken up. On the third pass, the flowers are fully broken. On the fourth, the broken material is gently caressed over the meshes. On the fifth, a little harder and so on until no trichomes are left. The harder the touch, the higher the percentage of contaminants created.

The technique is slightly different when working with sieved resin, only one or two passes and just one-handed drumming are necessary with loose trichomes heads. Anything that does not pass through the meshes of the sieve will not be processed further.

MOROCCO

The history of Hashish in Morocco is relatively recent, the export of Hashish started in the late 1960s. The smallest producing region of the world with the shortest history of Cannabis resin processing has become the largest exporter of Hashish in the world in a little over half a century. The techniques used in Morocco are a fusion of different sieving techniques imported possibly by foreign Hashishin and hippies in the late 60s.

The Moroccan technique also favors the use of a wide bowl, however the sieve material forms a large pocket securely strapped to the bowl instead of being stretched like a drum skin. The flowers are cleaned of stems and branches prior to processing, the prepared material is placed on the sieve and covered with a solid sheet of thick plastic stretched tightly. Moroccan Hashishins use two sticks to beat on the plastic and bounce the flowers up and down between the sieve pocket and the stretched plastic cover to detach the resin heads from their stalks. The sticks are of the same length but of different thickness which gives a level of control on the force of the agitation. The first pass is short and done by gentle drumming on the outer edge of the bowl to create a light bouncing of the

flowers; the second pass is a little stronger and longer and so on until the material bounces back hard between the sieve pocket, acting like a trampoline, and the plastic cover. The harder the beating, the higher the percentage of contaminants.

The lightest agitation of dry and brittle Cannabis plant material creates contaminants. This is the major obstacle in dry-sieving and the defining criteria of quality in producing countries.

ICE WATER SIEVING

The use of water when sieving Cannabis resin is the only evolution in this thousand-year-old methodology. The sieve and sieving material have evolved, but the methodology had not seen any change until water was added to the process.

REHYDRATION

The first and obvious evolution over dry sieving is the ability to work with rehydrated plant material which eliminates brittleness and the formation of contaminants during agitation. It is almost impossible to create contaminants once the plant matter is thoroughly rehydrated. Only ice cubes used to keep the water cold, have the potential to crush the material during agitation and create contaminants.

PROCESSING EVOLUTION

The dry sieving methodology is made of two inseparable processes, the agitation of the plant material to detach the resin heads from their stalks and the separation of contaminants and resin heads through the perforations in the sieve.

The use of water changes the very foundation of the sieving methodology. The processes of agitating the plant material and separating the trichomes heads from their stalks can now be divided into two separate stages.

The plant matter can be manually or mechanically agitated in ice cold water to detach the trichome heads optimally from their stalks, then the water holding the resin heads can be poured through the different sized sieving bags to maximize the separation process.

Water gives the ability to shake the plant matter thoroughly to detach the trichome heads without creating contaminants. The quality of the resin collected is no longer defined by cleanliness but by the maturity of the trichome heads, by the amount of resin formed inside the heads, aka the melt.

DEFINING TRICHOME MATURITY

The optimum maturity of trichomes is difficult to judge accurately by size alone and to complicate matters further, the coloring of the trichome heads is not a reliable indicator either.



The general assumption says that transparent resin heads are immature, milky white indicates ripeness, and amber implies a degradation of the resin. The truth is a little more complicated, as noted by David J. Potter in the chapter entitled Cannabis Horticulture in the Handbook of Cannabis (Oxford University Press, 2014, pg. 71) "However, a study of over 300 dry cannabis samples indicated minimal correlation between trichomes color and potency, except in relation to darker brown samples, clearly past the peak of potency."

The rate of transparency loss appears to be a genotype-dependent characteristic of Cannabis resin. Genetic makeup and growing conditions are

deciding factors in trichome head development and final coloring at maturity. As trichomes age, the resin heads first turn milky white and then transitions from a light to a dark amber. This amber color spectrum is wide, and only the darker colored trichomes will show a degradation of THC into CBN but not as a rule.²

An accurate evaluation of optimal trichome head maturity based solely on coloration or size is pretty much impossible; however, the ability to determine and separate levels of ripeness in resin heads is vital to perfecting hash making methodology and optimizing the different levels of quality of the collected.

In Part 3, I will share the scientific evidence that gave me the ability to define and separate precisely the different dimensions of ripeness and maturity of trichome heads. We will also cover the tools, the medium, live plants fresh and frozen, cured material and the implications Cannabis diversity has on ice water sieving methodology.

References

1. *Entourage Effect*: "Many of these compounds interact synergistically to create what scientists refer to as an "entourage effect" that magnifies the therapeutic benefits of the plant's individual components—so that the medicinal impact of the whole plant is greater than the sum of its parts." www.projectcbd.org/science/terpenes/terpenes-and-entourage-effect
2. *(The Propagation, Characterization And Optimisation Of Cannabis Sativa L As A Phytopharmaceutical A thesis submitted by David Potter JP MIBiol CBiol FLS CMIOSH. In fulfillment of the requirement for the degree of Doctor of Philosophy (Ph.D.) in Pharmaceutical Sciences Department of Pharmaceutical Science Research King's College London March 2009. https://archive.org/stream/CANNABISSATIVAASAPHYTOPHARMACEUTICAL/THE+PROPAGATION%2C+CHARACTERISATION+AND+OPTIMISATION+OF+CANNABIS+SATIVA+AS+A+PHYTOPHARMACEUTICAL_djvu.txt*

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