

## **Tasting**

***If sustainability were an animal, it might be a bee***

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Curled up on my couch with my favorite wool blanket and my hands cupping my favorite clay mug, I sip my steaming hot cup of caffeine free chai tea. Although my hot beverage of choice in the morning is always coffee, enjoying tea brings me comfort in the evenings. Recently, I prefer my tea with a splash of milk and a touch of honey. In the past, when I purchased a jar of honey it could last me years and I have to say that I didn't always pay particular attention to the type of honey or how it was sourced. For me honey was always just a source of sugar that I tried to avoid as much as possible.

When Andrea Paternoster from Mieli Thun visited our class in mid-October of 2020 and guided us through a honey tasting experience my thoughts about honey completely evolved into a deep appreciation for a food product that was really not something I paid much attention to in the past. In this paper, I will discuss the honey tasting conducted by Mieli Thun and how I have come to view honey as not only a sweet part of my evening ritual but also an essential food item that has the potential to support sustainable food systems.

When we arrived to our classroom for our honey tasting I was first struck by the way our classroom had transformed into a visually beautiful space. Andrea and his team had set up our classroom with various beekeeping boxes that were painted with vibrant artwork. To the right of the room was a large antique bee keeping box that was so unique that it seemed that it must have been borrowed for a museum. On our table we each had several wine glasses and to the left of the room was several jars and bottles of honey. The color of the honey ranged from dark brown to

also completely clear without much color at all. At the front of the room were several glass jars of different types of colorful pollen.

For me beauty is such an important component of taste and from what I observed in the classroom it was also a strong value of Mieli Thun's. From the clean simple packaging and graphic design of their products and artful presentation in our classroom, to the elegance of tasting honey from a beautiful wine glass instead of a paper plate and plastic spoon, added greatly to the overall experience. Before even tasting this honey, I was beginning to see a deeper beauty in honey than I had ever considered.

As we began to taste the honey, Andrea told us his personal story of beekeeping. This began in his childhood, as a hobby with his father. As he spoke, his eyes and smile reflected his deep passion for the subject.

The first honey we sampled was *Acacia*, a mostly clear honey from the Robinia Pseudoacacia flower native to the Appalachian's Mountains. We sniffed the honey in our wine glass as if we were tasting a fine wine. The scents were very subtle. We then tasted the honey and could recognize the delicate notes of flower petals. This honey had a taste that was familiar and like other honey I had tried. After several light colored more delicate honey, we moved on to the darker colored honey. *Erica* was a dark brown colored honey cultivated from the honey made from the flowers of the Erica Arborea plant. This plant is native to the Mediterranean region. Erica had a unique flavor of burnt caramel with coffee and herbal flower notes. We then sampled *Castagno* a dark reddish-brown honey cultivated from the Castanea Sativa flower. This honey was by far the most unusual honey I had ever tasted. This honey was bitter, with notes of herbs and cocoa beans.

Andrea is clear to point out that at Mieli Thun they are beekeepers, not honey producers. It was the bees themselves that have perfected their craft of honey producing over thousands of

years. Andrea considers his style of bee keeping 'nomadic bee keeping' where they bring their bees to collect honey in different locations throughout Italy. For Andrea making nomadic honey means seeking the finest floral and local expression of honey. They travel to bring their bees to at least 60 different locations throughout Italy, traveling at night while the bees are sleeping as a means to consider the bee's wellbeing and life cycle.

Andrea also shared his passion for cooking by sharing videos on ways honey can be used as an important culinary ingredient. He states, "the use of honey as a pure ingredient in marinades, emulsions, dressing and cooking is the new frontier of gourmet cuisine". Andrea shares one of his favorite cooking techniques that includes massaging meat with honey and allowing it to marinate in honey to yield a very tender juicy cut of meat that caramelizes well.

The beekeeping and honey harvesting process practiced by Mieli Thun begins with removing the frames of honey from a hive only when they are completely full to ensure the bees have enough to eat themselves. A smoker filled with burning paper and dried lavender is used to make bees drowsy when the beekeeper is opening the hive. Then a soft brush is used to encourage the bees on the removed frame to return to the hive. The wax is scraped off the top of the frame and then the frame is then placed into a spinner to remove the honey from the comb. The honey is then filtered to remove any possible wax and is then ready for consumption or packaging.

Andrea's explain the complex process that bees practice when making honey. One bee may drink nectar from up to 1000 flowers to fill their stomach. When their stomach is full they return to their hive. Bees recognize colors and shapes and for this reason some bee hives are painted with different colors. Andrea states that his bees recognize art and therefore collaborated with a local Italian artist to have his bee hives painted in artistic ways and has confirmed that his bees recognize the patterns on the box and know how to return to their own hive.

Once the bees have returned to their hive they begin to transform the nectar they have consumed into honey. They do this by regurgitating the nectar into the mouth of another bee, this passing of nectar from one bee to another enzymatically breaks down the nectar into the simple sugars of fructose and glucose and decreases the water content on the nectar. Andrea described this process of regurgitation as more of a love making process and that the bees are kissing each other in this process. The bees then place the honey into a wax comb that have been created by other worker bees. The comb is sealed with more wax to help protect and preserve the honey. This process continues until the entire hive is full. One hive can produce approximately 50 kg of honey per year.

According to the European Commission on Honey, beekeeping is essential for agriculture and the environment, bees ensure plant reproduction through pollination. (1) More recent research suggests that bee populations are experiencing a considerable decline. In a global study of insect pollinators, it was found that various regions globally detected a 2-5% decline in pollinator insects annually. The economic value of pollination to agriculture, provided primarily by bees is more than \$200 billion per year. (2) More than 80% of all crops depend on insect pollination to support agricultural diversity and crop yields. (3) A continued decline in bee populations can have a detrimental impact on our food system. This emphasizes the importance of maintaining the bee population through local beekeeping practices.

I left this tasting experience given by Mieli Thun with an entirely new view on honey. Honey will no longer be something I just enjoy adding to a cup of tea. I look forward to experimenting with new culinary application for the use of honey. I also left with a greater appreciation for bees and their incredible skills of not only recognize art but, also their ability to create beautifully designed structure to store and preserve honey. Bee's also give us the opportunity to taste the natural flowers and plants native to a specific region. Most importantly

while they are busy transforming nectar into honey, they are supporting the health of our agriculture industry.

Mieli Thun has a manifesto that sums up their honey with great accuracy. It states: "Our spirit sees honey as the food of the present and the future. It is nature explained in sixteen words, sixteen keys to a new idea of nutrition, linked to environmental and ethical values and quality of life. *Local, vegetable, raw, healthy, natural, essential, sweet, artisanal, unavailable, limited, atavistic, holistic, environmentally friendly, peaceful, maternal, seductive, and pure.*" (4) This was a perfect summary of all the ways in which the learning experience had evolved my view of honey.

## References

- (1) *The European Commission on Honey website* [https://ec.europa.eu/info/food-farming-fisheries/animals-and-animal-products/animal-products/honey\\_en](https://ec.europa.eu/info/food-farming-fisheries/animals-and-animal-products/animal-products/honey_en)
- (2) Hristov, P. *et al.* (2020) 'Significance of Apoidea as Main Pollinators. Ecological and Economic Impact and Implications for Human Nutrition', *Diversity*, (7)
- (3) Aizen, M. A. ( 1 ) *et al.* (no date) 'Global agricultural productivity is threatened by increasing pollinator dependence without a parallel increase in crop diversification', *Global Change Biology*, 25(10), pp. 3516–3527
- (4) *Mieli Thun website* <https://www.mielithun.it/en>