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BEEKEEPERS' BEE-COMINGS AND THE AGENCY OF BEES

Wings of a bee whip the mount Meru.
Tibetan proverb

INTRODUCTION

In the Anthropocene age, various questions about the relationship of humans with nature, including the creatures living amongst us, necessarily arise. This article, concerning the agency of the bee and the tremendous influence it has on the people it comes in contact with, intends to broaden discussion about the interactions between human and non-human life on Earth.

Bees are one of the examples provided by Donna Haraway to illustrate *sympoiesis*. The evolution of bees (family *Apidae*) as a genus is synchronized with the evolution of flowering plants, their exclusive source of food, as well as with various other species (Haraway 2016; 2003). In the process of bees becoming bees, many lesser known creatures take part. To list just two of them: lactic acid bacteria are involved in the production of "bee bread" (Vásquez, Oloffson 2015), and aphids are sometimes licked by bees when they crave sweet honeydew. But what is the relationship between bees and humans? Only a few of the more than 5,700 species of *Apidae* have deemed it worthy to enter into symbiosis with us. In Europe this most often concerns the famous *Apis mellifera* – the western honeybee that inhabits human cultivated beehives.

During two and a half years of fieldwork that took place from 2019 to 2021, I conducted multi-sited (Marcus 1995) fieldwork in Poland among small-scale beekeepers and the bees they keep. Beekeeping in Poland has a very long tradition dating back to the early Middle Ages, and Polish beekeepers take immense pride in this (Pokropek 2019). To the present day, apiaries in Poland are mainly decentralized and non-industrial, consisting on average of only 21 beehives. Beekeeping is also an

aging practice, with most Polish beekeepers being over 51 years old (Semkiw 2020). While the majority of my interlocutors live and beekeep in close proximity to Warsaw, the capital city of Poland, I have also worked with and interviewed three beekeepers from the village of Żywy in the Mazury region, two from the city of Nysa in Lower Silesia, and three from the city of Bytom in Upper Silesia[1]. In so doing I aimed to attain a broader perspective that would take into account narratives of different types of beekeepers: traditional, urban, mobile, and cooperative.

During the early stage of fieldwork, I quickly concluded that if I was to understand beekeeping as a deeply embodied practice, interviews and passive observation would not suffice. Building on that assumption, I decided to become a beekeeper's apprentice, taking every opportunity to work alongside my informants in order to auto-ethnographically understand beekeeping through embodiment (Anderson 2006). I have followed my informants to various spaces of their interest, spending most of my time at their side in apiaries, wherever they may have been. But I also joined them in their Internet fora, beekeeper pilgrimages, and public lecture halls. At the beginning I helped with simple tasks, moving on to more difficult ones after acquiring more *mētis*, a kind of embodied knowledge, that Ewa Klekot writes about in her work on pottery, where the potter's knowledge cannot be transmitted in words or writing, as it is inherent to practice (Klekot[2] 2018). These suspicions were reaffirmed by beekeepers, who often stressed that unless I come into direct contact with bees and the beekeeping practice by tending the hives myself, my account of beekeeping will not be rooted in *authentic* knowledge. As a result, I developed as deep a relationship with my beekeeper informants as I did with the bees.

Despite the variety of beekeeping narratives that I collected, in this paper I aim to explore one of their most common elements. During my fieldwork, it occurred to me that almost all areas of beekeepers' lives, both professional and private, are dictated by the bees, their needs and motivations. Beekeepers are to bees what Donna Haraway calls kin. Both parties are bound by resilient multispecies bonds, which if severed would mean disaster to both the bees and their humans, or at least, to their current ways of being.

I describe and analyze the process of bee-coming, the way a human becomes a beekeeper while being among bees, as a process that requires a multispecies understanding. I also explore the agency of bees, referring to conversations with my interviewees and my own observations of how bee-kind communicates and influences the beekeeper to adjust their actions accordingly.

There are two matters I need to make clear before I begin analysis of my fieldwork material. First, the division between the individual and the collective is a tricky task in the case of honeybee colonies. Western honeybees live in what entomologists call

[1] I meet many informants by "following the people", one of the main methods of multi-sited ethnography (Marcus 1995). Hence their geographical distribution.

[2] The notion of *metis* was introduced to anthropology by James C. Scott (2020) but in this paper my understanding of it follows from the texts of Klekot.

"eusocial colonies" (Crespi, Yanega 1995). Even though all bee eggs are equal when laid, during development they become separate reproductive casts. Usually[3] worker bees are sterile, taking care of their sisters and brothers and not having descendants of their own. This reproductive strategy results in the worker caste prioritizing the life of the fertile queen and drone bees over their own existence as long as they are useful to the colony[4]. Although I would not call bees *selfless* (as in unselfish, not as in lacking a self), I believe that in the most part, the interest of a particular bee is in unison with the interest of the colony. Because of this, in this work I won't make a distinction between the goals and agency of an individual bee and that of the bee colony. Such a distinction would be redundant. I find the need for a strong division between an individual and a colony to be an anthropocentric bias that researchers of eusocial critters might want to avoid.

Now, on to an even more complicated matter. Until recently the concept of agency was a quality assigned solely to humans. Non-humans were believed to be ontologically different, because of the lack of human-like consciousness, and therefore unable to be *agents* (Jonggab Kim, 2020). This assumption is currently contested by some social scientists and philosophers associated with the animal turn and new materialism (Bennett 2010; Haraway 2016; Latour 2009; Tsing 2015). Their arguments to grant non-humans agency are varied, but they usually question ontological divisions between humans and non-humans, and even between living and dead matter. As my perspective is rooted in the works of Bruno Latour (2004), I grant dispersed agency to both humans and non-humans, whether organic or inorganic, as well as to their assemblages present in the complex relational web of beekeeping.

TOWARDS BEE-HUMAN UNDERSTANDING

One of the biggest concerns, when it comes to the anthropological study of non--humans and interspecies relations, is the uncertainty of communication between humans and other animals. Two of the most compelling solutions, relevant to this paper, are the ones presented by Lisa Moore and Mary Kosut (2014), and by Donna Haraway (2016).

The work of Moore and Kosut (2013; 2014) is focused on the human-insect entanglements of bees in New York. To deal with the aforementioned communication

[3] Sometimes the laying worker bee phenomenon (*trutówka*) occurs. Rarely are a worker bee's ovaries developed enough for her to lay eggs. Even when it happens because a worker bee is not inseminated from her eggs, only drones may hatch. This process is called parthenogenesis (*dzieworództwo*) and it's a fascinating story on its own. Parthenogenesis was discovered by the Silesian beekeeper Jan Dzierżoń – a priest who was excommunicated because of his findings (Chmielewski 2006).

[4] Many of my informants told me that if they mail the queen bee to another country they always send her together with a "procession" of other bees. If something goes wrong, those worker bees feed the queen bee nectar from their own stomachs to not let her die, even if it puts them at the risk of starvation. This information was shared with me many times in various contexts.

problem, Moore and Kosut developed a concept of intraspecies mindfulness. This perspective rejects the notion of bees and beekeepers as static and fixed identities but renders them as bodies created by entanglements and conflict. It aims to decenter the human perspective in research on beekeeping, and to recognize the concept of the human as a cultural construction. Interactions between the human and the other are always mediated by senses – sight, hearing, touch, taste and smell. Thus, if we wish to establish communication, create a certain *understanding* of each other, we have to see, touch, taste, and smell bees and their products. Although conducted on different continents, Moore's and Kosut's research shares many similarities with my own, including the emphasis on the importance of embodied knowledge, as well as treating bees as informants and agentic subjects.

Donna Haraway offers in her work the useful concept of a *contact zone.* A phrase borrowed by Haraway from Mary Pratt's *Imperial Eyes*, was originally adapted from the meaning of the linguistic term *contact zone*, which referred to improvised languages developed among speakers of different languages who needed to consistently communicate with each other (Haraway 2016). Pratt used *contact zones* to denote social spaces in which cultures clash and interact vividly (2008). Haraway adapted Pratt's term to denote spaces of interspecies interconnectedness that result from the development of means of simplified communication used by members of different species trying to understand each other. A similar concept was described by Eduardo Kohn in his book *How forests think*. There he writes about trans-species pidgins using the example of the language Runa people use to talk to their dogs (Kohn 2013).

To put those concepts into work – beekeepers and bees enter contact zones where they establish an understanding of each other using all available senses. Humans perform their beekeeping, communicating to bees with actions. Bees, on the other hand, keep communicating within their species, and act in accord with it for the sake of cooperation. Humans in turn can see this and respond to it.

When it comes to communication amongst bees, they communicate in a multi--sensory way. For example, they use two different dances to share information about the location of food – a waggle dance, in the case of food more than 50 metres away from the hive, and a round dance, for shorter distances (Frisch 1974). Mechano-acoustic signals, like beeping and piping, are used as well – for example, to ask another bee to stop her action (Schlegel, Visscher, Seeley 2012). Interestingly, the pheromonal communication of honeybees is one of the most advanced of all social insects. Its uses include, but are not limited to, alarming the colony, nestmate recognition, and regulation of brood development and care (Bortolotti, Costa 2014). Most of these signals are beyond human senses, but many experienced beekeepers can roughly understand the bee language on the simplest of levels.

When it comes to communicating with other species, stinging is the most direct message bees can send to humans. The meaning is simple, but non-precise: *Stop what you're doing.* A beekeeper in training must learn what makes bees sting, or otherwise agitated, and there can be many reasons for it. The rain makes bees nervous. Quick movement irritates them. A self-proclaimed new queen can make bees aggressive.

Checking their nest too often annoys them. Strong smells like sweat, perfume, or alcohol vex them. Every mistake of the beekeeper will be punished by a painful sting. And this is no minor matter, which I have learned painfully myself. When working with Adam, an urban beekeeper taking care of beehives located on many of Warsaw's corporate skyscrapers, I was stung many times on my face, arms, and hands, something that resulted in fever, swelling, a terrible headache, and the need to stay in bed for two days.

Such stings are even more dangerous for people who are allergic to bee venom. One of the most astounding perspectives that I heard during my interviews was shared by Anna[5]. Her apiary is also located in Warsaw, near the Vistula river in a spot that looks almost rural compared to the corporate skyscrapers; almost as if she transplanted a piece of the countryside onto the urban fabric. Bees play a particularly important role in Anna's life – beekeeping is her family tradition. She learned it from her father, who himself was taught the craft by his mother. Surrounded by bees from childhood, she has great respect for them, and a never-ending awe that has made her continue the tradition, despite her being severely allergic to bee venom. She described her symptoms as very strong and varied, "a madness", that resulted in "vomiting some kind of partial paralysis", with a strong itching sensation overtaking her entire body:

> *I was convinced that my body was burning, my whole skin was purple like the skin of some… hobo who has regularly been drinking the cheapest spirits for the past 20 years. I couldn't manage to dress myself. I tore off my clothes because I thought I was burning and then I couldn't even grasp the buttons to fasten them.*

When her daughter, who is currently a student in a beekeeping middle school[6], suggested visiting a medical professional and buying an adrenaline injector to be safe just in case, she declined, saying: "if I am to pass away like this [stung by a bee], so be it." Later in another chat she told me she will keep bees until her death. Beekeeping is indeed usually a lifelong pursuit, however, she remained insistent: "Yes, but 'until death' has a nicer ring to it".

Being well aware of the fact that bees can hurt us but not fearing them is one of the marks of an experienced beekeeper, and the foundation of an *understanding* between the bees and their keeper. Whenever I worked with beekeepers who had practiced for many years, I noticed that usually they preferred not to wear beekeeping gloves. Adam, whom I have mentioned before, was no exception:

> *Adam: My grandfather taught me that no matter if they sting or not, you must pretend that nothing is happening. You have to work slowly, if you do this slowly they will not sting you. If you flail your arms and squish the bees, make any unnecessary movements, or cast a shadow on the hive's exit...*

[5] Names of the interlocutors have been changed due to privacy laws.

[6] Most Polish beekeepers do not have any formal beekeeping education – their knowledge is inherited by cooperative practice. The main motivation behind taking official beekeeping courses and exams is the prospect of buying land in accord with the legal regulations set for farmers.

There are a hundred mistakes you can make. Don't make them! If you make the first one, you will be stung once and a chain reaction begins. You get stung twice, three times, five times… enough! At this point, I must put on my suit. I don't like working in the [beekeping] suit, it's too hot. I don't wear gloves, otherwise I couldn't feel the temperature of the hive. I wouldn't notice the bees' aggression. I would have no way to read various other stimuli. If I open a hive and the bees rapidly charge at me, I know that something's wrong, they are hungry. (...) As long as I don't make the first mistake, I do the work in a tank top, smoking a blunt, and if I screw up I have to get dressed and I find it annoying. If I work without gloves I get to know that I did something wrong real quick. I know immediately if something is wrong with the bee family – if they are hungry they will be very aggressive.
Me: It's direct communication, right?
Adam: Yeah. If I work in full armor, I cut myself off from all of the stimuli. It's just wrong. I am not telling you to work without a hat, that isn't what I'm trying to say, but you shouldn't use gloves. This is the old-school way. We approach the hive in pairs. Though the bees will chase you, they'll leave me to work in peace because I know how to move and you don't. This is real beekeeping, not buying some 500 zloty beekeeping suit, wasting half an hour putting it on, only to end up working in 50 degree Celsius heat, you know? Here's my offer – you put on gloves and boots and come work with me, 12 hours of running around carrying 40 kg hive chests. Then you may see what I really mean...

In the course of my research, I began to see stinging as an action through which bees discipline humans, communicating their boundaries. For a bee, to sting is to assume control over a situation, for example, over the beekeeper's movement. In such moments, bees and their keepers are in a *contact zone* (Haraway 2016), where through entanglements and conflict both the keeper and the bee become mindful of each other (Moore & Kosut, 2013; 2014). This is the reason why getting stung is treated as a rite of passage. One of the beekeeper's apprentices that I spoke to, Borys, told me that his teacher was concerned about bees not stinging him. "Too long... too long without a sting in him, it has to change…", he used to mutter while working together. Being stung is an intimate and intense feeling, compared by many beekeepers to getting a kiss from a gorgeous woman. Despite the pain and the burning sensation, stinging is dearly missed during long bee-less winters.

But the sting is not the only means of communication bees employ. Experienced beekeepers grasp their buzzing and dancing sufficiently to understand what the bees mean. Michał, a second-year student of the University of Warsaw with a long family tradition of beekeeping, told me how bees let him know of their own condition:

In winter I still visit my allotment [where the bee-hives are] every once in a while. I put my ear to one of the beehive's walls, to the spot where the swarm sits and where you can hear a gentle buzz. Judging by the buzz, one can tell if something is going on. If it's monotone and quiet, then 90 per cent of the time all is fine and the bees are calm. If you hear the voices of individual bees rising over this monotone buzz it can mean that they have no mother. If there is complete commotion and chaos it may mean many things. That they are taken ill by varroa or nosema, or that they are out of food. It's just a signal, of course you can't tell exactly without checking.

During the wintering (Pol. *zimowla*), opening the hives to check on the bees can lead to injuring or even the demise of the entire bee family. By tuning in to the buzz of bees and listening mindfully a beekeeper can quickly catch up on the news, and have a better idea of what to expect when the bees wake up in the spring.

An embodied knowledge of beekeeping consists, among many things, of being tuned in to bee's buzzing. A wise beekeeper can avoid being stung by understanding the buzz, knowing that moments before an attack bees change their tone. A slight variation is a warning, and if beekeepers have the knowledge to notice it and the time to react, they will retreat and wait until the bees calm down. During participant observation in Zbigniew's mobile apiary, I waited for four hours because the bees were exceptionally agitated.

We have seen by now that touch and hearing are used by humans when they come in contact with bees and try to understand them. The sense of smell is also used. One of the warnings I received in the beekeeper's discussion club was that if I ever smelled bananas while working with bees, I should immediately leave the area. Of course, the smell doesn't come from the fruit; the banana-like olfactory sensation comes from the pheromones bees produce and our brain detects, and signifies bee aggression. Our sense of smell, in comparison to other species, is rather primitive, and we will never grasp the full complexity of fragrance produced by the bee's mandibular gland. But in this case it works well enough for us to understand the situation.

Another sense, the one that dominates human experience of the world, namely the sense of sight, is also quite important. The aforementioned bee dances are a way of gaining insight into a bee's intentions, but my informants did not deem them useful, contrary to other bee motions they observed. For example, during an educational meeting in an urban beekeeping company called Pszczółtopia one of the participants said: "When you open the hive and the bees are cold they will stick out their bums, show you their stinger and waggle". During another meeting in the same place, Tadeusz Gąsior, Pszczółtopia's owner, shared a method of successfully introducing new queens to existing bee families that he had developed by observing bees. For bees to accept the new queen, they must get used to her smell. For this reason, the queen is first put into the hive in a little cage plugged with sugar pills. As this does not always prevent regicide, a beekeeper can note that the bees are unhappy with their new queen by observing their movement. If their intent is malicious, their motions within the hive will be rapid and aggressive.

Another basic behavior of bees that a keeper must recognize is the one that precedes swarming. In the summer, bee families can split, with the old queen leading her bees to a new hive, and the new queen taking her position at the old one. This process is called swarming (Pol. *wyrajanie się*), and is considered by beekeepers as very unfortunate. First of all, not every swarm can be caught, and a new bee family will leave the apiary. Secondly, a newly split bee colony is vulnerable due to the low bee count, and may die during the first winter. Luckily for beekeepers, bees show clear signs of intending to leave before they do. If they notice a commotion brewing near the hive's entry (Pol. *wylotek*) and act quickly, they may stop the swarming just in time and keep their bees safe and sound.

THE BEEKEEPER'S METAMORPHOSIS

Bee-coming is the term I propose to talk about a certain kind of "becoming with", particularly to talk about "becoming with" bees. A new beekeeper can only be produced by the cooperation of a human and non-humans. But in this relationship, bees do not make any concessions. The only way beekeepers can influence bees is by changing their surroundings and manipulating them. Beginner beekeepers give up their mobility in private life, devoting a lot of effort, free time, and money to practice and learn how to understand their bees.

The motivations for taking up beekeeping are many: having one's own authentic honey, continuing family tradition, or escaping the urban lifestyle – but one stands out for me, when it comes to my own beekeeping experience. It's the need to be in communion with what is colloquially called nature. Once in the village Żywy in the Mazury region, while being alone around the hives, I put my hand next to the hive's entrance. To my surprise, instead of a cold and rough wood, I felt warmth and vibrations, as if I was petting a cat. This intimate sensual experience, a moment of closeness between a human and non-human, unique to beekeeping, mesmerized me as a beekeeper-in-becoming. I later spoke about this experience with a hobbyist--beekeeper Anna and her daughter Maria:

> *Maria: The only thing I can tell you is that approaching the beehive for the first time, and hearing countless bees, and then suddenly them starting to hover – it is an amazing sensation, it makes me shiver. I don't know, I just think that everyone should experience it. If young people could see it for themselves, they would know how nice it feels.*
> *Anna: Look, it's like going to another dimension, right? A dimension you can't see. It's a kind of barrier, an entrance to this dimension. Even sitting here I'm thinking about falling asleep, dressing up in my beekeeper suit, this is the entrance I'm talking about, a portal leading to another dimension, where it is just wonderful.*

Bees attract beekeepers-to-be with the secret of the swarms, nostalgia for idyllic country living, and the simpler times of an imagined past. Bee-coming a beekeeper almost does not seem like a choice – one catches 'the bug of beekeeping' and is lured deeper into the bee-human relationship. The metaphor was the most commonly repeated phrase in all of the interviews I conducted regardless of place, age, and type of beekeeper. Engaged in this relationship, a person starts to learn from bees and other beekeepers and gradually transforms, not unlike a bee in a brood cell. The way the keeper moves, thinks, and acts changes – bees transform them in their image.

Zbigniew is a mobile beekeeper who moves his hives from place to place, depending on the season and currently flowering plants. When driving with him to the spot where his bees stayed over winter, we passed a small lawn that was overgrown with wild Canadian goldenrod (Lat. *Solidago canadensis*). The plant, originally from North America, is by some perceived as an invasive species, but to beekeepers it is a valued friend who extends the beekeeping season by a whole month. Zbigniew smiled looking upon the growing plant. Was it because of its beauty? Not at all.

Zbigniew smiled because he had come to think like a bee. Looking at the goldenrod, he saw it with the bees' compound eyes. Having spent years among bees, watching them dance, listening to their buzz, and inhaling pheromones, he bee-came a beekeeper – a specialist in bees' needs and concerns. Instead of a beautiful flower, he saw *pożytek*. The term in the Polish beekeeping dictionary means both nectar, pollen or honeydew, however the word itself commonly means something beneficial. Every melliferous plant is considered *pożytek*.

Another illustration of the influence that the relation of beekeepers to bees has on their perception of the world is present in language – particularly in the way beekeepers talk about time. Oftentimes my research participants used the names of flowering plants instead of referring to months when denoting past events. For example, "I was staying in Kraków from linden until goldenrod", denoting the time from July until August. This means that even the most basic of categories used to construct and communicate meaning, such as space and time, are constructed in relation to those non-human subjects. The bee calendar is the foundation of the beekeeper's rhythm of life, and, as I elaborate more in the following paragraphs, can be a steady point in chaotic times.

The most touching proof of the profound meaning of bee-human relations that I came across was an announcement written by a Polish beekeeper three days after Russian forces invaded Ukraine in February 2022, which resulted in millions of Ukrainians seeking refuge in Poland. He wrote:

> *If you meet any Ukrainian man or woman and […] find out they are beekeepers and had to abandon their home and bees [...] send them to me. I will accommodate them. [...] I know that losing contact with bees can push a person to the very bottom of hell.*

In the face of tragedy, empathy and understanding between humans are found through shared relations with non-humans. It may be puzzling for some that amidst the horrors of war, the loss of contact with bees is considered a serious matter. For many of my human informants, bees set the rhythm of life. Regardless of changes in other domains of life, bees and their hives are always there, unchanging, constant. Always in need of feeding or assistance in their fight against parasites. Repeating the mindful routine calms the beekeeper and provides them with emotional stability. I read the above quote as an offering of such stability to somebody whose life was turned upside down, and who might be in dire need of something to hold on to, something familiar and comforting. It brings to mind the words of Martin Lindauer, one of the most prominent figures in the study of bee communication:

> After experiencing the senseless regime of the Hitler time, which was malicious, dishonest, and wrong from all perspectives, I drew strength from having work based on absolute correctness, honesty, and objectivity. Out of this material and spiritual collapse, this hopelessness, I was able, with Karl von Frisch as a teacher, to build a new way of life. I found a new home with the bees. It was really a new home, the bee colony (Seely 2002).

Bees mold humans into bee-coming their keepers, and the shared and similar experience of keeping bees makes beekeepers resemble one another. Thus, they create a community of people connected by practice.

Most of my informants were convinced that bees can mold people beyond their behaviors – for physically, too. Not only products such as honey, beebread, royal jelly, and propolis are considered medicines, but bee venom is considered a medicinal substance as well. Because of that, a sting is believed to change a person not only mentally, or spiritually, but also physically. Grzegorz, an elderly beekeeper and a member of the beekeeper's discussion club, told me how bees "healed" his son's joint pain:

Grzegorz: And they [the bees] healed my son!
Me: How?
Grzegorz: Like nurses (laugh) – with injections. Bee venom injections.
Me: Was he allergic?
Grzegorz: I don't know if he's allergic... But he had problems with joint pains in his hands... Here, in these spots [he shows me the joints of his hands]. So we went to the apiary and got to work around the hives. He put on rubber gloves, with rubber fingers… Here [on the wrist] he was covered with cloth. And through this cloth... (laugh) [they stung him]. His hand was swollen to his very elbows. He went to a pharmacy and bought calcium and the docs gave him some other drugs... I was scolded by my daughter-in-law, but my son's hands stopped hurting!

This makes the beekeepers' bodies as well as their minds products of multispecies relations with their six-legged kin.

BEE AUTONOMY AND DECISION-MAKING

In the literature on beekeeping the autonomous management of a hive by the bees is largely overlooked. The actual influence of a keeper on the affairs of bees is surprisingly meek. Even though bees kept by humans live in boxes prepared by beekeepers, on wooden frames, and even build their combs on the store-bought wax sheets, everything, starting with inhabiting a hive, through accepting a new, human-planted queen to the shape of their honeycombs, is their decision. For example, many of my human informants complained about "unauthorized constructions" (Pol. *dzika zabudowa*) that bees had built so the hive could better suit their needs. Perceived by humans as a useless waste of energy and wax, an "unauthorized construction" might be a sign of the hive being too small. But bees perform their agency in other ways, ones duly noted by their keepers.

In the opinion of beekeepers, there is a tendency among bees to favor their own bloodline. They also believe that aggression and fighting spirit runs in the family. Motivated by these beliefs, they will sometimes attempt to swap queens. The foreign queen coming from a "good bloodline" will lay a tranquil and compliant brood. That is, if only the children of the prior queen will let her. My human informants

often complained that many times bees introduced to a new queen straight-up murdered her. They wanted an independent sovereign of their own dynasty to rule. Human-elected pretenders would have to face fierce opposition before taking power. Jagoda, who hosted me in the Żywy village and whom I assisted in tending to the bees inhabiting her agrotouristic farm, explained to me the causes behind bee aggression:

Me: Why are they so aggressive?
Jagoda: Genes, I guess. A savage mother, [that's why] they are vicious. Well, when breeding a line, we breed the bees to be gentle, right? Select them carefully. But if the mother isn't replaced regularly every two years, they will replace her themselves. And they are cunning, they prefer their own mother to this selected one. At the end of the year, I ordered four inseminated queens. I swapped them and put the original queens in these tiny hives. [...] [The worker bees] began building queen cells. If they spawned a mother, she would stab the one from the good bloodline to death. That's just how they are! They just have a preference.

Genowefa, a beekeeper with over 60 years of practice, succinctly explained to me the meaning of a rebellion of bees:

Me: Do they really rebel?
Genowefa: Yes!
Me: Against whom?
Genowefa: Well, against the beekeeper. They rebel and flee. The mother takes the family and they escape. This is called swarming.

Swarming is considered a rebellion by beekeepers. What beekeepers do to prevent it is to trick bees into thinking they succeeded in getting away by manipulating them. For example, a way to make bees think they accept a new queen is by putting a foreign queen into a plastic container shaped like a queen cell and plugged with beeswax. This supposedly natural emergence and getting used to the new queen's pheromones may fool bees into thinking that they really spawned a queen of their own. Another strategy to trick rebelling bees is to catch a swarm in search of a new home, luring it into an empty beehive. They might become convinced that inhabiting this space was their own choice. While the bees have their own agency, beekeepers try to recognize their needs by guessing what bees might accept. Through the method of trial and error, a beekeeper gets to know their bees, but to keep the multispecies understanding and mindfulness between the human and the bees, the keeper must constantly be alert, ever respecting bees and their unquestionable autonomy.

When asked about the need for cooperation with bees in beekeeping practice, Bogna, who pursues beekeeping for the sake of food self-reliance, answered:

Yes. I think you need it. Or at least a good understanding. You have to be observant to see what is really going on and why it is going on, or maybe change the course of events with your actions to get the desired outcome. Bees may rebel against you and end up not doing what you wish, but the idea is to get the effects you want.

Sometimes, an autonomous decision made by bees brings the beekeeper joy. In an anarchist communal apiary[7] in Warsaw, the empty hives were inhabited by feral bees who deemed the place appropriate. Borys, an apprentice in this apiary, described their queen:

> *Yeah, that's the oldest mother. Our first mother. She settled this hive by herself, she flew in with someone's swarm. And heck, she is going strong, she lays tons of eggs and yields a brood just like she should. This family is doing well under her care. She is doing great.*

Borys also highlighted the agency of bees in protecting their home from invaders. The anarchist communal apiary was "infested" by a swarm of hornets, so I believe he spoke from experience when he stated that:

> *And they are… What do you call them? Valiant. Valiant, brave for sure. If a hornet flies [into the hive] they heat him up, cook him up, make a hornet soup. It's incredible that they can do such a thing.*

The best condensation of the idea of a bee's autonomy came from the previously mentioned Bogna: "we are just a guest in the beehive – not the host", is how she concluded one of our discussions on bee behavior.

The many conversations I have had with my informants on the agency of bees would not have provided me with enough knowledge if I had not myself entered the process of bee-coming a beekeeper. One summer day, early in the morning, I got a call informing me that a swarm of bees was sitting on a tree in a public park in Warsaw. A professional beekeeper was supposed to come and take care of it later, but in the meanwhile I was asked to go there and keep a close watch on the bees. When I got to the place, I saw two officers of the Municipal Police carefully observing them. Indeed, a considerable swarm of bees had settled down on the tree to rest. I decided to wait for the beekeeper to take them down. I do not own the necessary equipment, and even if I did, I was not confident enough in my beekeeping skills. I sat down, chatted with the officers, even wrote a field note. For the moment, the situation seemed stable. A few eventless hours later, my ears picked up an odd sound from among the urban noise. I felt a change in the weight of the air. I told the Municipal Police officers to back off, because the bees were going to take off. They smiled flippantly, but their expressions changed in an instant. A ball of bees exploded into the air, filling the space with thousands of insects. The buzz was deafening. After just a few seconds it started to rain. I understood that the rain must have irritated an otherwise calm swarm. All I could do was to follow the bees wherever they went. To the dismay of onlookers, the bees headed to a playground. Several dozen children and babies started screaming in fear. In just a few minutes,

[7] This apiary was founded by squatters on wasteland – the hives are mainly made from scrap or were found abandoned. Around those bees a community of a few beekeepers and apprentices arose. They are currently opposing a developer who intends to build an apartment estate on the place of their apiary. One of the forms of this resistance is sabotaging the road leading to the wasteland.

a calm morning in a city park turned into mass hysteria and panic. That day I learned the power of bees and the final manifestation of their agency.

CONCLUSION

In this paper, I have provided insight into the agency of bees and their ways of molding beekeepers. Based on ethnographic and auto-ethnographic material, I have shown how mindfully beekeepers experience their entrance into multispecies contact zones to gain an understanding of bees. Through the totality of the beekeeping experience and interconnection with bees, they bee-come their new co-constructed selves.

It is impossible to overstate the group-forming effects of bee-coming. To give an example, I discovered that the beekeepers community is surprisingly inclusive. Before I started the study, I assumed that because of the rather advanced age of most beekeepers and conservative views widespread in Polish society, minorities would be unwelcome in beekeeping circles. To my surprise, many of the young beekeepers were LGBT and the older beekepers did not mind, they were just glad to be able to share their knowledge with someone, contributing to keeping the tradition alive. The community based on multispecies practice proved stronger than societal prejudices[8].

I propose a perspective on the relationship between bees and humans rooted in multispecies anthropology and emic knowledge of Polish beekeepers. Far from being in the grasp of the beekeeper, bees are agentic beings who make decisions on their own and even force them on their surroundings. Bees and beekeepers are engaged in a constant struggle co-constructing each other through burdensome relations. Despite all the means of bio-control (Galiński 2022) employed by humans, bees still manage to resist, oftentimes making beekeepers fall back and accept their terms. I do not believe that the perspective presented in this paper is necessarily more truthful than others, but I think it highlights many important points to consider when thinking about human-nonhuman relations and agriculture in the Anthropocene[9].

Treating the bees as partners, not as a recourse to exploit, follows from a long tradition and the ethical code of Polish beekeepers. When a bee dies, Polish beekeepers describe it with the Polish verb *umrzeć* (to die), one usually reserved for humans only. This privilege is a sign of the great respect paid to the non-humans by their human companions.

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[8] As for the year 2022 when this article is written LGBTQ+ people in Poland are facing severe discrimination. (2022 KPH) One of the most affected groups are transgender people – both binary and nonbinary. Queerphobia in Poland is strongly correlated with male sex and old age (Dębińska 2020), however I was wrong in assuming that the beekeeping society dominated mostly by male seniors would be queerphobic.

[9] I understand "Anthropocene" as a geological epoch shaped by "Man" – a particular kind of being invented by Enlightenment thought and brought into operation by modernization and state regulation and other related developments. Anthropocene results from "Man's" actions aiming to conquer nature (Haraway, Ishikawa, Gilbert, et al. 2015).

Bees communicate with humans in multiple ways involving all the senses. Experienced beekeepers can tell the feelings, plans, and needs of a bee just from its buzz. Movement may provide similar insight. Even the smell of pheromones might be a warning sign. An exceptional direct signal is that of stinging, which beekeepers learn to accept and even long for. Beekeepers strain their multi-sensual sensitivity to catch and identify all the messages that bees send to them. Not doing so would be very risky – medically, economically, and socially.

To me it seems clear that for the beekeeper, his entanglement in a multispecies relation with bees shapes the way he perceives the world and himself, as well as the way he acts towards both human and-non human subjects and their behavior in general. Regular contact with bees that changes a human into a beekeeper is a process I call bee-coming. Their way of thinking and behaving are forever changed by a multi--species relationship. It affects not only their relation to "nature", but also toward other people and themselves. Bees are time and again compared to teachers who give unforgettable lessons to the beekeeper-in-beecoming. Bee-coming isn't a choice. Bees lure humans into a symbiotic relationship and humans have no choice but to oblige.

The autonomy of bees is greatly underestimated. Beekeepers try to influence the behavior of bees, but the effects vary. Oftentimes bees *rebel* against the beekeeper if their interests collide. Bees do not comply and they do not make concessions. Bee bloodlines will get gradually more aggressive on their own, and beekeepers work hard to breed this trait out of them. Despite that, bees often choose not to accept a new compliant ruler, wanting an independent one. Somewhat surprisingly in the relationship between humans and bees, the latter have the upper hand. Humans will go through metamorphosis and internalize bee language, their rationality, and desires just to engage in this relationship. The beekeepers' bee-comings are a complex process of a multispecies *sympoiesis* resulting in the formation of a traditional hybridized identity.

Here, I must emphasize that I would not dare call myself a beekeeper – even after years of keeping bees, some of my informants also shied away from doing so.

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JULIUSZ GALIŃSKI

BEEKEEPERS' BEE-COMINGS AND THE AGENCY OF BEES

Key words: beekeeping, bee, agency, bee-coming, honey, more-than-human world, relationality, Poland

The limits of non-human agency are still a highly disputed topic in the humanities and social sciences. This paper is a case study of the relationship between Polish beekeepers and bees, based on data collected during two and a half years of participant observation and conducting ethnographic interviews. I suggest that bees have an immense amount of agency in their contact with humans. Bees shape people in their image in the process of bee-coming, thus influencing the way they think, speak, and behave. Moreover, bees have a great deal of autonomy when it comes to the inner architecture and politics of the hive. A significant means of manifesting bees' agency is that of stinging. Stinging is a direct message to the human, a way of signaling the bees' needs and feelings. Surprisingly, in this relationship between insects and humans, the insect has the upper hand.

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