

**A** seasonal and regional approach to Canadian cuisine forms the bedrock at Actinolite, the Ossington Avenue restaurant Justin Cournoyer opened in 2012 and named for the central-eastern Ontario town where he grew up.

Despite Cournoyer's staunchly local outlook, three years ago it hit him — something was missing — and he needed to look across the ocean to another continent for the answer: miso.

Cournoyer imagined the salty, earthy, profound umami flavours from fermented foods would add depth to vegetables, especially during late fall, winter and early spring, when there are few fresh varieties available from the local sources upon which he insists.

He was even craving umami in his own diet.

He was drawn to the idea of soy sauce on perfectly steamed early spring spinach or cured pickles made by immersing Canadian sunchokes in a creamy miso bath. He also craved salty-pungent kimchi made from fermented winter cabbage.

“We’re not inventing this stuff [or doing it] just because it’s new in the restaurant scene or popular as we’re learning from different cultures. This is an everyday [experience] and what we do is apply old techniques, but they support regional food,” Cournoyer says.

It started when Cournoyer was pondering how to add flavour to beets one evening. He turned to former Actinolite staff cook, John Greenwell, who now acts as a consultant and culinary researcher for the restaurant and said: “We have to make miso.”

Greenwell, who delights in flavour sleuthing and digging into the science of food, started researching koji as soon as Cournoyer mentioned miso. Koji, the Japanese word for the fungus *Aspergillus oryzae*, is used to break down foods to make fermented products — everything from miso to sake. Although, Greenwell is quick to point out, however, that fermentation, which means decomposition of sugar into

ethanol, is a misnomer to describe these foods. The process is “enzymatic digestion,” but we’ll call it fermentation anyway.

Fermentation became one of the restaurant’s “pillars” two years ago during the 18-month period when Cournoyer closed Actinolite each Tuesday to brainstorm and work with staff on ideas. Out of that came “the koji project.”

“We balance each other,” Cournoyer says of how he and Greenwell work together. “He’s science and I don’t know science very well.”

What seems even more important to Cournoyer is their like-mindedness about the philosophy behind Actinolite.

Greenwell is at the restaurant regularly, tending to and expanding the repertoire of foodstuffs fermenting in various ways in Actinolite’s cache of small basement walk-ins and storage rooms. The slightly funky-smelling area is combination flavour nursery and science lab, the results carefully monitored for health and safety. Greenwell tracks the progress using his Google account, with recipes and links to articles on things like surface mould.

“The food we do here is driven by our land and our farmers, the way we used to preserve a long time ago and taking all the cultural influence that is around our community and in the kitchen itself,” Cournoyer says.

Among those cultural influences are Actinolite’s chefs, including South Korean-born Kwangtaek Lee. He’s deeply involved with cultivating the koji and other fermentation projects at the restaurant.

Fermentation is behind the bold, flavour-rich sauces and condiments seen throughout Asian cooking, but it was also popular in ancient Rome to make umami-rich *garum* (think fish sauce), where fish and fish guts were salted and left to ferment in barrels.

Koji is often grown on soybeans or rice in Japan. At Actinolite, where the focus is on Canadian farmers and produce, it meant