



FAT TIRE PRESENTS

Zooming in on the Microscopic

An exploratory look at local places cultivating microbes in batches & brews

Intersections is a series of self-guided rides exploring connections underneath LA's surface curated by LACBC.

Logistics

izi.Travel audio guide with turn-by-turn directions:
bit.ly/AudioGuideZoomingIn

Ride with GPS route:
bit.ly/RouteZoomingIn

Cue sheet: see last page

Overview

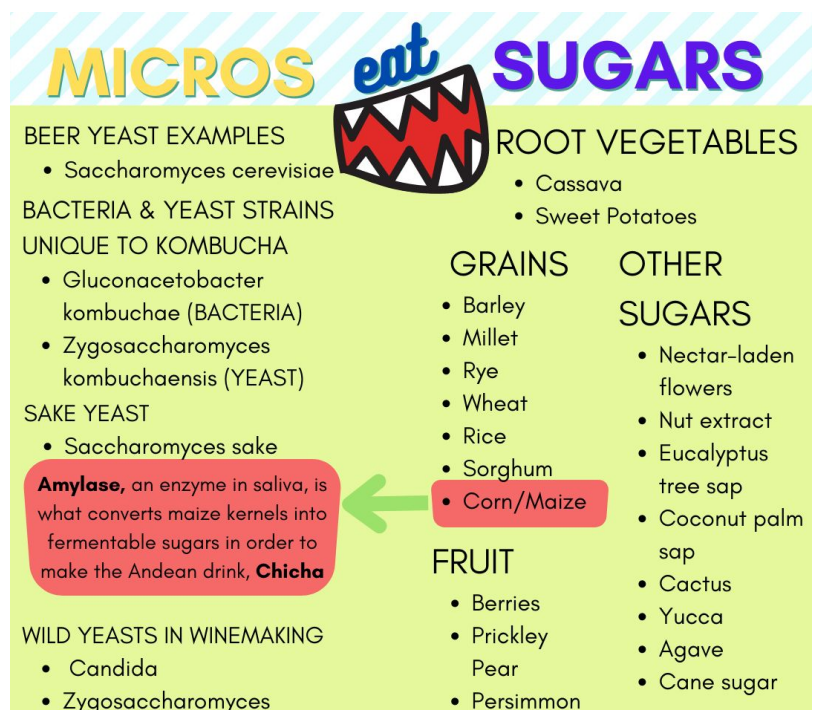
Humans have a long-standing relationship with microbes both inside and outside of our bodies.

When it comes to creating fermented drinks, microbes have been doing their part for at least 9,000 years. Yeast, a microscopic fungus, is naturally present in the air. When this fungus comes in contact with cereals containing certain sugars, the cereals undergo spontaneous fermentation thanks to these yeasty airborne microbes. A by-product of this fermentation is alcohol.

With spring finally here, we're taking an exploratory look at local places cultivating microbes in a variety of tasty brews. This 13 mile ride starts in Downtown LA at 7th St/Metro Station and visits a sake bar, a winery, a kombucha brewery and more. At each stop, we feature places utilizing microbes to create complex systems humans have relied on for thousands of years.

This ride will connect you with these places so that you know they exist and we provide all the information here on how to order sake, wine, kombucha and beer. However please keep in mind that most of the featured stops don't open every day or aren't open until the early evening hours.

From Downtown LA, the route heads toward Echo Park, climbs 150-250 feet through Elysian Park before zooming you down 478 feet onto Broadway, grazes Lincoln Heights, heads through Chinatown & the Arts District then back to the downtown core. This ride should take you about 1.5 to 2 hours. This ride is most appropriate for riders comfortable climbing and descending, sharing space with vehicle traffic, and riding in streets without bike infrastructure.



Evidence of the oldest known alcohol goes as far back as 7000BC in China - the evidence points to a drink that was a blend of fermented grapes, honey, hawthorn and rice.¹

In Egypt, evidence of barley beer has been found that dates back to 5000BC in Mesopotamia.² Beer's status as a staple in humans' daily lives most likely took root around 5000BC alongside the domestication of cereal. Evidence suggests that women were the primary brewers in ancient Mesopotamia, with Ninkasi, the Sumerian goddess, overseeing the brewing process.³

Although tangible evidence only goes back around 11,000 years, some believe humans have consumed fermented drinks as far back as 200,000 years ago. Cultures all over the world independently developed a variety of fermented drinks based on the plants and microbes present in their region.

Despite alcoholic drinks and our long relationship with them, the US Federal Government outlawed drinks that were more than 0.5% alcohol in 1920. Thirteen years later, Franklin D. Roosevelt signed a law legalizing the sale of beer and wine with a 3.2% alcohol content. The law was set to take effect on April 7. On that day in 1933, 1.5 million barrels of beer were drunk in the US, giving rise to April 7 being designated as National Beer Day.

With prohibition now a century behind us, the future of beer is not something to be taken for granted. With climate change on the horizon, disruption to agriculture is posed to raise the cost of every bottle of beer over time. You can learn more about beer's impact on the climate and vice versa at DrinkSustainably.com - New Belgium's website breaking down the brewing process and announcing Fat Tire as the country's first certified carbon neutral beer.

MICROBES have been fermenting SUGARS for thousands of years



Sources

https://www.beerhistory.com/library/holdings/raley_timetable.shtml
<https://theconversation.com/alcohol-brewed-from-trees-and-other-fermented-drinks-in-australias-indigenous-history-96127>
<https://www.technology.org/2016/11/01/went-australian-aboriginal-fermented-beverages-foods/>
<https://www.cntraveler.com/story/a-guide-to-indias-must-try-spirits>
<http://www.todayifoundout.com/index.php/2013/11/native-americans-introduced-alcohol-europeans/>

1: <https://www.smithsonianmag.com/history/the-beer-archaeologist-17016372/>

2: <https://www.history.com/news/who-invented-beer>

3: <https://beerandbrewing.com/how-women-brewsters-saved-the-world/>

We are proud to partner with Fat Tire to bring you this ride in time for National Beer Day. As Fat Tire themselves state, “the production, distribution, and refrigeration of beer all contribute to climate change.” New Belgium’s goals to become fully carbon neutral across all operations by 2030 have led the company to commit to wind power, solar, and biogas technology as renewables to power the brew.⁴

As you explore the different purveyors of fermented goods along this route, remember that you belong to a long line of humans, microbes and plants that have co-existed over millenia. The effects of human-powered climate change are already being felt throughout the globe. As Earth Day comes and goes this month, we invite you to think about your relationship to the earth, all the way from the single-celled organisms to the big rock we call home.

7th St Metro Station

Downtown Los Angeles

Our ride begins at 7th St Metro Station. This station is easy to get to via public transit, as this is where five transit lines meet: the A (Blue) Line, B (Red) Line, D (Purple) Line, E (Expo) Line and J (Silver Line)

WAYFINDING

From here, take the 7th St bike lane and make your way west towards Figueroa then make a right to head north. This part of the route will take you through a recently installed protected bike lane between Wilshire and 2nd St.⁵

You’ll stay on Figueroa for about a mile. When you get to Sunset Blvd, make a left by either changing lanes



DRINKSUSTAINABLY.COM

MEET THE FIRST CERTIFIED CARBON NEUTRAL BEER

Fat Tire
NEW BELGIUM
AMBER ALE
EST. 1991
COLORADO

Fat Tire
NEW BELGIUM
COLORADO U.S.A.

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and getting in the left-turn lane or making a box left turn.

In half a mile you’ll make a left onto Marion Ave, followed by a right onto E Kensington Rd, a right onto Douglas St then another right onto Allison to end up at the storefront of Ototo Sake Bar.

4: <https://www.brewbound.com/news/new-belgium-fat-tire-amber-ale-is-first-carbon-neutral-beer-nationally-distributed-in-us/>

5: <https://la.streetsblog.org/2021/03/16/eyes-on-the-street-newly-protected-bike-lane-on-figueroa-street/>

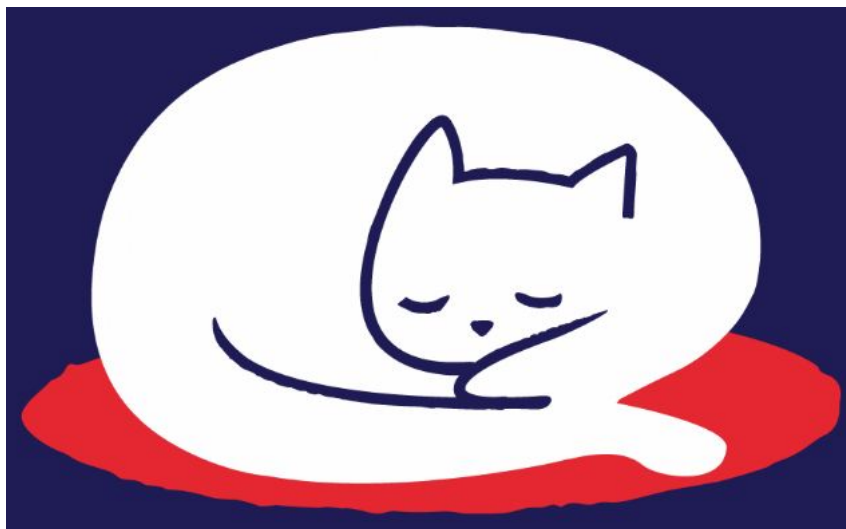
Ototo Sake Bar

Rice fermentation

Ototo Sake Bar will be on your right before hitting Sunset Blvd. Ototo is right next to Tsubaki. Tsubaki, a Japanese restaurant, and Ototo, are both owned by chef Charles Namba and Courtney Kaplan.

They offer bites, brews & groceries! They also have a sake club that sends members three 10 oz bottles of sake per month based on a new theme. Check it out at:
ototo.la/product/ototo-sake-club

Ototo is open Thursday thru Sunday from 11am to 4pm. You can preorder in advance for future dates. You can order by phone at 213-784-7930 with credit card info ready or go to ototola.shop to see the full menu. They also accept walk-up orders with 15-20 minutes to prepare. Ototo is located at 1360 Allison Avenue 90026.



WAYFINDING

From here make your way to the left turn lane on Sunset Blvd or hop on the sidewalk on Sunset and make your way to the crosswalk in order to cross Sunset. Start climbing up Vin Scully Avenue then make a left at the first street, Lilac Terrace. From there you're going to make a right and ride up through Victory Memorial Grove and through Elysian Park.

Climb through Elysian Park

Views of the city + vaccine site

This is where most of the climbing on this ride happens. As you make your way along Elysian Park Drive and Angels Point Road, you'll more than likely get a view of the tents and vehicles that are part of the vaccination site at Dodger Stadium. The views of LA, as well as the cardio from this climb,

climb, make for an opportunity to reflect on the past year.

As we surpass the year mark of COVID-19 transforming so many of our lives, we have been witness to how microorganisms can easily force the



world to change track. It's interesting to also consider the way microorganisms are always present in our quality of life.

The brain-gut connection has been a subject of study for quite some time, with anxiety being linked to stomach problems and vice versa.⁶ A very recent study suggests that the diversity of the gut microflora has some connection to loneliness and wisdom, with higher rates of diversity linked to less loneliness and more wisdom. It's a small study and it brings up so many more questions, but at the very least, to quote the paper's senior author, "We need to investigate much more thoroughly to better understand the

phenomenon of the gut-brain axis."⁷

Speaking of the gut, the restrooms and recreation area at Elysian Fields provide a good mid-point for a bathroom break, a snack or a moment of reflection. After Elysian Fields, the route descends 478 feet in 2.2 miles. Keep left to stay on Angel's Point Road, then keep right to get onto Park View Drive. Continue straight along Park View Drive all the way until it becomes Park Row Drive and meets up with Meadow Road. Make a right onto Meadow Road and you end up at Broadway. Make a left onto Broadway, then a right onto Spring St. That'll take you to the next stop, Angeleno Wine Company.

Angeleno Wine Company

Grapes, Grown in LA

As you approach the Wilhardt St traffic signal, hop onto the sidewalk so you can stop and check out the Angeleno Wine Company. The Angeleno Wine Company opened up in July of 2019.

According to their website, the Angeleno Wine Company aims "to push the boundaries of what Southern California wine growing can be." They work with sustainable vineyards in LA County.

Although the tasting room is temporarily closed, they are open for to-go wine pick-ups and deliveries. They offer delivery within 15 miles of Downtown LA and can ship anywhere to the lower 48. Go to angelenowine.com/ordering-wine to see their selection and order wine.

In the center of their logo is El Aliso, a tree that was 60 feet high and had a canopy 200 feet wide. The tree served as a site of worship, gathering and prayer for the Kizh people and once stood at the center of Yangna, one of the largest indigenous villages in this area.

The tree sprung from the earth sometime in the late 1400s, and started dying a slow death 400 years later in 1889 after Jean-Louis Vignes, LA's original winemaker, removed several of its branches to make way for a brewery expansion. After a branch fell and caused some property damage, the rest of the tree's branches were removed in 1892, and it was felled and sold for firewood in 1895.⁸



6: <https://www.health.harvard.edu/diseases-and-conditions/the-gut-brain-connection>

7: <https://ucsdnews.ucsd.edu/pressrelease/wisdom-loneliness-and-your-intestinal-multitude>

8: <https://www.kcet.org/shows/lost-la/el-aliso-ancient-sycamore-was-silent-witness-to-four-centuries-of-la-history>

From here, if you want to avoid Spring St you can stay on the paved path alongside the LA State Historic Park and make your way back onto the street after exiting the park. Continue along Spring, and make a right onto the small side street right after College. Then make a left onto N. Spring St, a right onto Ord St then a left onto New High St. Continue along New High as it becomes Spring St then make a left onto 2nd St. Make a right at San Pedro and you'll arrive at our next stop.



Their in-person Bokashi training sessions have gone virtual since COVID-19. Catch up on their upcoming workshops and learn more about Bokashi at sustainablelittletokyo.org.

From here make a u-turn and head back up San Pedro then make a right onto 2nd St. Make a right onto Garey St, a left onto 3rd St, then a right onto Santa Fe Ave. In about 600 feet, our next stop will be on the left side of the street.



Sustainable Little Tokyo

Bokashi

Sustainable Little Tokyo lives inside of the Japanese American Cultural and Community Center. They are a community-driven initiative working to ensure a healthy, equitable, and culturally rich Little Tokyo for generations to come.

SLT hosts what's called Hiro's Bokashi Club, which aims to teach others about the Okinawan tradition of Bokashi composting - an anaerobic composting process that uses a mix of microorganisms that combats food rotting bacteria and increases the speed of decomposition.

You can buy bokashi supplies on their website while supplies last and have it shipped to you.

HERE & NOW

Crowns & Hops Beer

Located at 300 S. Santa Fe, Here and Now is open for takeout, delivery and outdoor dining starting at 5pm Tuesday through Sunday. You can order online on their website: store.hereandnowdtla.com/

Here and Now offers a varied selection of food and drinks, but of particular note for this route is their selection of Crowns & Hops Elevated Cypher IPA.

Crowns and Hops Brewing Co. was born out of founders' Teo Hunter's and Beny Ashburn's work to increase BIPOC⁹ representation in the craft beer space.¹⁰ They have plans to open up a brewpub in Inglewood this year. You can use the beer locator on their website, crownsandhops.com, to find the place closest to you selling their beer. Their selection ranges from IPA, Pilsners, Imperial Stouts, and more.

The craft beer industry has taken off in the United States after President Jimmy Carter signed a law giving home brewers the right to make their own beer in 1978.¹⁶ Black beer-making traditions, however, did not begin in the Western Hemisphere. Precolonial West Africa has its own process and history with fermenting beverages. This history of Black brewing continued throughout the early United States (Peter Hemmings,

9: BIPOC = Black Indigenous People of Color

10: <https://www.thrillist.com/eat/los-angeles/crowns-and-hops-brewing-co-profile>

11: <https://www.socalcerveros.org/about-scc>



Sally Hemmings' brother, was a master brewer at Monticello, for example).^{17, 18}

Although Black brewing is a part of America's earliest history, the current US beer industry is overwhelmingly white. There are several people and groups working to increase BIPOC representation in the craft beer space.

Some of these include SoCal Cervceros¹¹, a Latino based homebrew club,¹² People's Republic of South Central, a Black-owned craft beverage incubator, production & packing facility set to come to South Central LA this year,¹² and Beer Kulture, a nonprofit that advances opportunities in the craft beer space.¹³

Click on the link in the footnote below¹⁴ to check out a list of breweries, wine/spirits creators and influencers with diverse backgrounds throughout the world on this Google Map curated by @BlackBeerTravelers.¹⁵

Creating opportunities for greater inclusion across all industries can transform our economy. Increasing access to capital for minority-owned businesses,

including BIPOC brewers, has the potential to pump trillions of dollars into the economy and create jobs.

"INCLUSION asks: Have we made sure that everyone knows they are invited to come into the brewery?"

EQUITY asks: does everyone have the same quality of experience once they arrive?

JUSTICE asks: can we eliminate the barriers that people experience that keep them out of the brewery or provoke them to leave? "

goodbeerhunting.com/blog/2020/8/10/the-time-is-now-part-three-why-inclusion-equity-and-justice-could-determine-whether-breweries-flourish-or-fail

"Inclusion asks: have we made sure that everyone knows they are invited to come into the brewery? Equity asks: does everyone have the same quality of experience once they arrive? Justice asks: can we eliminate the barriers that people experience that keep them out of the brewery or provoke them to leave?"¹⁹

Check out this footnote²⁰ learn about Black-owned breweries and this one²¹ to read about what New Belgium is doing for diversity and inclusion.

WAYFINDING

From here, head south along Santa Fe, keeping right at the fork to get onto Mateo Street. Make a right onto 6th St, a left onto Mill St, and a right onto Industrial. You'll find yourself at our next stop.

12: <https://www.prscbrand.com/pages/about>

13: <https://www.beerkulture.com/>

14: <https://www.google.com/maps/d/u/0/viewer?mid=1CrWpOC4SBAC-qODp9EXs8YR78grAdXWX&shorturl=1&ll=34.04307544209089%2C-118.23226117222985&z=12>

15: <https://www.instagram.com/blackbeertravelers/>

16: https://www.salon.com/2017/04/26/heres-a-timeline-that-explains-how-beer-went-from-brilliant-mistake-to-hipsteric_partner/

17: <https://www.eater.com/22262702/beer-culture-in-america-black-brewers-history>

18: <https://www.npr.org/2021/02/27/972145022/writer-investigates-history-of-americas-black-brewers>

19: <https://www.goodbeerhunting.com/blog/2020/8/10/the-time-is-now-part-three-why-inclusion-equity-and-justice-could-determine-whether-breweries-flourish-or-fail>

20: winemag.com/2020/06/09/black-owned-breweries-guide/

21: newbelgium.com/company/mission/diversity-and-inclusion/



FLYING EMBERS

Kombucha

Flying Embers is a kombucha brewery whose namesake and origin is dedicated to supporting first responders and firefighters in harm's way, especially as it relates to wildfires. This past summer they donated 100% of their online sales proceeds for a week to provide burn shelters, fireproof gel, and basic supplies for those affected in the California fires.

You can order for pickup at their LA brewing facility and taproom online from 1pm to 8pm. They're located at 1581 Industrial St.²²

Kombucha has a long history that dates back to at least 220 BC in Asia. It is purported to have gotten its name from Dr. Kombu, a Korean physician who brought the fermented drink to Japan as a curative for Emperor Inkyo.²³

The microbes involved in making kombucha can be similar to those for brewing other alcoholic drinks, but there are some strains that are unique to the SCOBY-based brew. These include the bacteria strain *Gluconacetobacter kombuchae* and the yeast strain *Zygosaccharomyces kombuchaensis*. This bacteria strain is responsible for feeding on the nitrogen produced by tea and building the SCOBY, while the yeast strain produces alcohol, carbonation, and contributes to the mushroom body. The symbiotic relationship between bacteria and fungus create the gelatinous culture used to make kombucha, aka the SCOBY.²⁴

While kombucha has a centuries-long history being used as a health food, it has become mainstream in



recent years. The current industry, as represented by the international trade association Kombucha Brewers International, is nearly two-thirds white.

As the brain-gut connection continues to be explored by research and science, the commodification of centuries-old fermented foods and drinks from across the globe sometimes disregards the longstanding relationship BIPOC cultures have with the microbes and plants that bring us the kimchi, tepache, and other fermented foods we love.²⁵

As we continue to explore our own relationship with microbes and the role they've played throughout our own history, it's important to acknowledge and recognize the cultures that stewarded those resources for centuries.

From here, make your way back toward Mill St and make a right, then another right onto 7th St. In 1.7 miles you'll arrive back at 7th St/Metro Station.

If you partake in alcohol, we invite you to take some time in the next few days to try some of the brews featured in this store. For today, treat yourself to a Fat Tire and know that you're drinking a beer that cares about climate change.

We hope you have enjoyed this ride!

22: <https://www.toasttab.com/flying-embers-social-club-la/v3/>

23: <https://www.forbes.com/sites/christinatroitino/2017/02/01/kombucha-101-demystifying-the-past-present-and-future-of-the-fermented-tea-drink/>

24: <https://www.culturesforhealth.com/learn/kombucha/kombucha-bacteria-yeast/>

25: <https://www.eater.com/2021/3/1/22214044/fermented-foods-industry-whiteness-kimchi-miso-kombucha>

Leg	Dir	Type	Notes	Total
	←	Left	Turn left	0.0
0.0	→	Right	Turn right onto West 7th Street	0.0
0.1	→	Right	Turn right onto Figueroa Street	0.1
1.2	←	Left	Turn left onto Sunset Boulevard	1.3
0.5	←	Left	Turn left onto Marion Avenue	1.8
0.1	→	Right	Turn right onto East Kensington Road	1.9
0.3	→	Right	Turn right onto Douglas Street	2.2
0.1	→	Right	Turn right onto Allison Avenue	2.3
0.1	→	Slight Right	Turn slight right onto Sunset Boulevard	2.4
0.0	←	Left	Turn left onto Vin Scully Avenue	2.4
0.1	←	Left	Turn left onto Lilac Terrace	2.5
0.1	→	Sharp Right	Turn sharp right onto Elysian Park Drive	2.6
0.5	→	Slight Right	Turn slight right onto Elysian Park Drive	3.2
0.3	→	Right	Turn right onto Elysian Park Drive	3.5
0.6	→	Right	Turn right onto Angels Point Road	4.1
1.6	↑	Straight	Continue onto Park View Drive	5.7
0.5	↑	Straight	Continue onto Park Row Drive	6.1
0.2	←	Slight Left	Keep left onto Park Row Drive East	6.3
0.2	→	Slight Right	Keep right onto Park Row Drive East	6.4
0.1	→	Sharp Right	Turn sharp right onto Park Row Drive East	6.5
0.1	→	Right	Turn right onto Meadow Road	6.6
0.2	←	Sharp Left	Turn sharp left onto North Broadway	6.8
0.3	→	Sharp Right	Turn sharp right onto North Spring Street	7.1
0.4	→	Right	Turn right	7.5

0.0	←	Left	Turn left	7.5
0.1	→	Right	Turn right	7.7
0.0	←	Left	Turn left	7.7
0.1	←	Left	Turn left	7.8
0.0	→	Right	Turn right	7.8
0.1	←	Sharp Left	Turn sharp left	7.9
0.1	↑	Straight	Continue	8.0
0.0	←	Left	Turn left	8.0
0.0	→	Right	Turn right onto North Spring Street	8.0
0.1	→	Right	Turn right	8.2
0.0	←	Left	Turn left onto North Spring Street	8.2
0.2	→	Right	Turn right onto Ord Street	8.4
0.0	←	Left	Turn left onto New High Street	8.5
0.1	→	Slight Right	Turn slight right onto North Spring Street	8.6
0.6	←	Left	Turn left onto West 2nd Street	9.2
0.3	→	Right	Turn right onto San Pedro Street	9.5
0.2	→	Sharp Right	Turn sharp right onto East 2nd Street	9.6
0.4	→	Right	Turn right onto South Garey Street	10.0
0.1	←	Left	Turn left onto East 3rd Street	10.1
0.1	→	Right	Turn right onto Santa Fe Avenue	10.3
0.3	→	Slight Right	Keep right onto Mateo Street	10.5
0.3	→	Right	Turn right onto East 6th Street	10.8
0.1	→	Right	Turn right onto Mill Street	10.9
0.2	→	Right	Turn right onto Industrial Street	11.1
0.2	→	Right	Turn right onto Mill Street	11.3
0.1	→	Right	Turn right onto East 7th Street	11.3
1.7	→	Right	Turn right	13.1
0.0	→	Right	Turn right	13.1