

FOCUS

M A G A Z I N E

Seeing Double:

Travel through some sights of Baylor and Waco over the years

Pg. 4

Sniffing Out Suspects:

Meet Waco PD's Furriest Officers

Pg. 14

It Takes the Human Touch:

Feel the effects of practice, patience and posture

Pg. 32



**CAN YOU
SENSE IT?**

TABLE OF CONTENTS



Seeing Double

Let's go back in time and see how the sights around Baylor and Waco have changed over the past 100 years.

4

Fragrances With a Dash of Passion

Filling our homes and our noses with aromas, how do candles get their signature scent?

11



Sniffing Out Suspects

For some, to "serve and protect" includes a wag of the tail and some high praise.

14

Sour, Then Sweet

Did you know there's a berry that can change a lemon's tartness to be sweeter?

18



Whiskey Business

See how Balcones Distillery has been bringing back Texas whiskey since the Prohibition.

20

Turn Up The Volume

Balancing school and producing music, this Houston-native is making a name for himself.

25



Show Me A Sign

The first deaf professor at Baylor continues to advocate for deaf awareness.

28

It Takes the Human Touch

Outside of plucking a string, the harp requires a little more delicate touch.

32



Letter From the Editors

Imagine you're at a concert. You can see the artist on stage, you can smell the smoke from the fireworks, you can taste a quick sip of water, you can hear the screaming fans all around you, and you can feel the bass in your chest. All your senses work together to create an experience, and realizing the abilities of each sense is what inspired this issue.

With so many ideas relating to the senses, it was hard to narrow down what we wanted to include and pursue in this edition. Between the two editors and with the help of our staff writer, Lukas Reyes, we have found various stories across Baylor and Waco that highlight the unique abilities your senses provide. Whether it's through a small business or watching students follow their passion or even keeping up with tradition from the 1900s, we utilize each of our senses to navigate through our daily life. However, it is more than just a tool for daily necessities; each of our senses allow us to pursue different interests and experience unique opportunities. Encountering trial and error and starting fresh with new ideas, we hope you can sense our efforts in every way and enjoy.

Sincerely,
Rachel Chiang & Mallory Harris

SPECIAL THANKS

The Texas Collection
Matt Kyle
Chloe Williams

Gillian Taylor
Audrey Patterson
Elliot Dunham

Hannah Harvey
Milo Langmore
Kenneth Prabhakar

Hal Schmidt
Julie Reed
Bruce Gietzen

Front & Back Cover Model: Hannah Harvey



Staff from Left to Right: Mallory Harris, Rachel Chiang, Lukas Reyes



Seeing Double

Double
Double

A glance at historical sights and moments of Baylor and Waco.



Photo courtesy of The Texas Collection & Waco Tribune-Herald

Waco's renowned ALICO building, built in 1910, stood strong after the EF5 tornado on May 11, 1953. As part of a series of tornadoes that spread across the nation from May 9-11, this one storm is known as the deadliest tornado in the history of Texas, according to the National Weather Service. Ripping through downtown Waco, the tornado killed 114 and injured 597 people. Despite the twister's 23-mile path of damage, the steel structure of the ALICO building was untouched. Today the building continues to stand tall and guide local Wacoans to the ambient downtown area that has continued to grow and rebuild since then.



Photo by Mallory Harris

DIFFA



SPOT



Photo courtesy of The Texas Collection



Photo by Mallory Harris

THE

Between 1958 to 1978, the Waco Urban Renewal Project set up major renovations for various parts of Waco from LaSalle Avenue to Waco Drive. While the project was federally funded, the City of Waco knew a greater part of their plan was to convert much of downtown to be Austin Avenue Mall, a pedestrian mall closed off to traffic to connect the old City Hall Square to new business. The grant was received in 1968, and construction began in early 1970. The Austin Avenue Mall was officially dedicated in 1971, according to The Texas Collection. As the years went on, key businesses set up shop around Waco and by 1985 Austin Avenue was reopened to vehicular traffic from Third Street and Ninth Street. Today the street remains home to various shops and restaurants and continues to bring locals and tourists to shop and enjoy.

REFERENCE



Before the 1953 tornado tore the steeple off and caused other damage, First Methodist Church stood at Fifth Street and Jackson Avenue for over 50 years. As the oldest congregation in Waco, First Methodist Church brought people to surrounding churches to develop other denominations in the area, such as the Baptists and Presbyterians, according to their website. After the tornado, there was too much damage to the building and the church decided to rebuild at 4901 Cobbs Drive, according to The Waco Tribune-Herald. Today the congregation has grown to acquire a location in both downtown and South Waco. The space at Fifth Street and Jackson Avenue now holds a field for youth sports that's utilized year-round.

Photo courtesy of The Texas Collection & Waco Tribune-Herald



Photo by Mallory Harris

Completed in 1887, Old Main was the first building completed for the university's move from Independence to Waco. During the 1953 tornado that destroyed many buildings across the Waco area, the spires atop Old Main and Burleson Hall were weakened. University officials removed them out of concern for public safety. Questioning whether to renovate or remove the building altogether, a small fire in 1969 made the decision easy to have the building fully restored without tearing it down, according to the Texas Historical Commission marker. Rededicated in 1976, Old Main has remained a hub for students and still houses classrooms and offices for the university.



Photo courtesy of The Texas Collection





Photo by
Rachel Chiang

In the early 1910s, athletics were becoming prominent in Texas. With the encouragement from students and donors, Baylor University received its first few athletic fields. The most popular was Carroll Field, where today sits the Bill Daniel Student Center. Its grandstand could seat 1,000 people for football games and other events. While there were also the Minglewood tennis courts behind and to the right of Carroll Field, a less prominent athletic field sat behind Burleson Hall. Home to the women attending the university in 1910, these tennis courts were meant for recreation, according to The Texas Collection. In 1939 the Judge Baylor statue was erected and Founders Mall was growing, but up until the 1950s, many photos no longer show these courts. Today it remains an empty field covered by trees, with the addition of Bennett Auditorium in the 1970s.

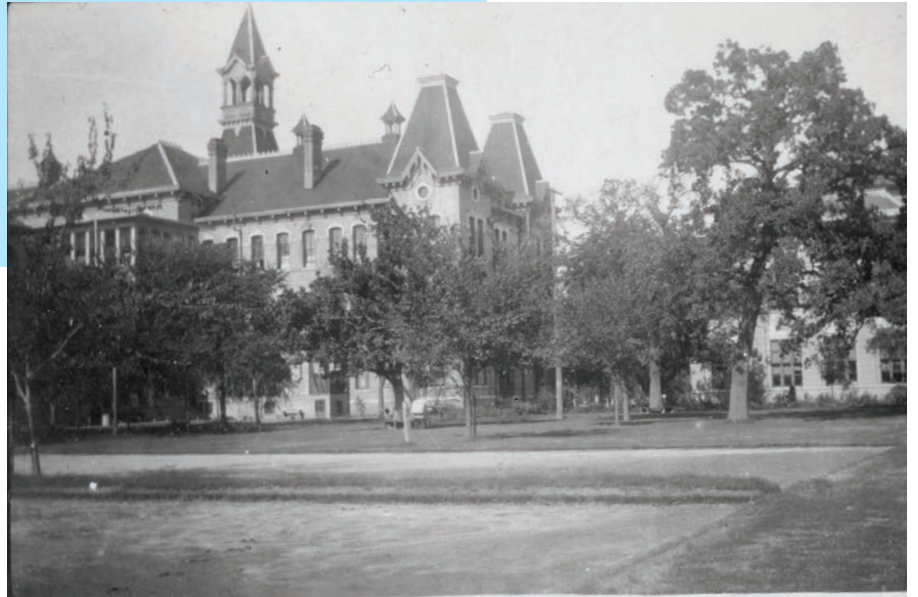


Photo courtesy of The Texas Collection



Photo by
Rachel Chiang

As cars became a popular mode of transportation, by 1901 the Citizen Railway company had up to 20 electric trolleys in operation on the streets, and by 1905 a street-paving system was in place. To commemorate Waco's growth, in 1911 the ALICO building was constructed. It was the tallest building in Texas at the time, standing at 22 stories. In 1913 an electric interurban railway opened and connected Waco to Dallas to help 500,000 people visit the Cotton Palace's Fall Exposition, which became the most popular fair in the south. During World War I, Waco was selected as a training base for soldiers called Camp MacArthur and during this time Waco's population doubled and the economy was booming.



Photo courtesy of The Texas Collection



Photo courtesy of The Texas Collection

In 1958 Waco was selected to participate in a national federal urban renewal project that would demolish old buildings that were falling apart and revamp new blocks. This new growth was prompted by Waco Army Air Field being reactivated as Connally Air Force Base 10 years prior and bringing about 84,300 people to Waco by 1952. At the time, Waco was known as the sixth largest industrial center in Texas with more than 250 factories. While the 1953 tornado caused a lot of damage across Waco, the urban renewal project was able to help bring Waco out of the dust. In the late 1960s, the Roosevelt Hotel was closed down to be a retirement home, which led to the ALICO building becoming the new downtown hotel. During the renewal, updates were made to the ALICO, allowing for it to be an inn with over 115 rooms and a second-floor meeting room.

Since the 1960s and 1970s, the urban renewal project brought life into a new Waco scene with new things continually being added over the years, such as a shopping center near Baylor University, a convention center, new apartment complexes, the Texas Ranger Hall of Fame and Museum and the Cameron Park Zoo. While more things have been added throughout Waco, such as the Waco Mammoth Site and McLane Stadium, downtown has maintained a busy area with updates to shops, parking, Waco Downtown Farmers Market and more. The Roosevelt Hotel is no longer a retirement home but an office building, and their banquet hall is still used for local events. The ALICO building is no longer a hotel and the previous convention center is now a parking center. From the same point of view, it's clear that many changes have occurred up and down Austin Avenue with the adding of trees to provide shade complementing the sidewalk shops for tourists.



Photo by Mallory Harris





Photo courtesy of The Texas Collection

Despite a span of 100 years, the main differences between these photos include tall trees and modern cars and technology. Austin Avenue built itself back up after the 1953 tornado for today's scene to be just as bustling as it was in the 1920s. Since Waco's participation as a training base for soldiers in World War I, downtown shops gained business from their travels, and many other businessmen came through Waco for various goods. Although to keep soldiers focused on the war, anti-prostitution campaigns were made and the "Reservation" — a district where prostitution was permitted — was shut down.



Photo By Mallory Harris



Photo courtesy of The Texas Collection

The Hippodrome Theatre's construction broke ground in 1913 and opened for business in 1914 after groups of local businessmen and citizens banded together for a theater to be developed in downtown Waco. With their first show including a live seal act, magic show and a five-piece orchestra, the Hippodrome has continued to grow in entertainment by adding movie screens and other shows, according to Waco History, a program jointly overseen by Baylor University and the Institute for Oral History. Designed by Texas architects, a small fire in 1928 brought about changes to the front of the building. Reopening in 1929, the Hippodrome faced constant competition with other theaters in the area. With continued renovations in 1936, for example adding on a second floor, as well as in the 1950s and 1970s, the theater has been able to draw people in. Despite closures in 1974 and 2010, the Hippodrome remains a centerpiece for Waco entertainment.



Photo By Chloe Williams

CATCH

THE

SCENT?



POWER COUPLE: First meeting at Mission Waco, Elijah Muhammad and Jessica Jimenez-Muhammad have crafted friendships alongside their brand to sell their candles across local Waco businesses.



Fragrances With A Dash Of *PASSION*

Story & Photos By Mallory Harris

From mixing his father's colognes as a kid, Elijah Muhammad has come full circle to build a brand that feels like home.

Lighting a candle can send the same signal to your brain as a conductor bringing his arms up ready to cue in the orchestra: “Get ready.” While fragrances can hold special moments and allow for a blend of unique scents, Elijah Muhammad, co-founder of Symphony Candle Co., compared the blending of sounds from instruments in an orchestra, or a symphony, to blending fragrances as inspiration for the name of his company. Without any control or idea as to how to blend everything together, it doesn't sound or feel good until you find that missing piece. That piece, Muhammad believes, is the cue to begin, whether in the form of a conductor or a candle.

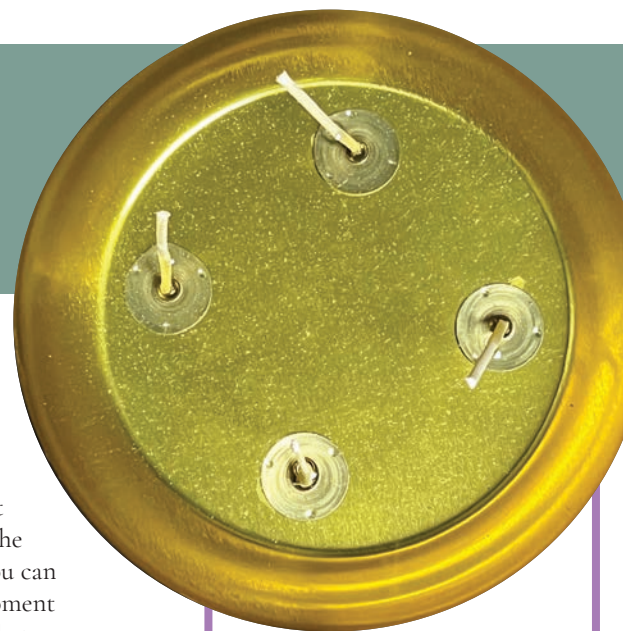
“I want our candles to be a cue,” Muhammad said. “The cue for you to [think], ‘At this moment I'm lighting this candle, I'm going to try and be my best at this moment,’ so it's me cleaning up, it's me studying, it's me just spending time with family making the

atmosphere cozy or whatever atmosphere you want. We want it to be that cue that sets up the atmosphere so you can be in the best moment with people in whatever you are trying to do.”

Prior to starting the business in 2019, Muhammad knew he wanted to be an entrepreneur. He asked himself what products he uses himself that he could improve upon for other consumers and realized he's always had an interest in fragrances since he was a kid. Although over the years Muhammad and his wife, and co-founder Jessica Jimenez-Muhammad, said it wasn't easy starting out and some things had to be learned in the moment.

“When mixing the fragrances, it wound up coming full circle [and] reminding me of when I was a kid and messing around with my dad's cologne,” Muhammad said. “I've always loved fragrances, so candles were something that I was like, ‘Oh, I could try that out.’ I got into it, thought it was going to be really easy, but like all things there are some things you have to learn and so it ... was definitely a learning curve.”

Picking up tips and tricks, Muhammad has found that the rules to help guide him in creating a “good-smelling” candle can be seen as suggestions and allow him to be innovative. He must pay attention to the accords, a pre-mixed blend of fragrances that resemble smells of nature, as well as the bottom, middle and top notes. Each piece plays a specific part in the overall smell. For example, the bottom notes last longer when burning a candle and



ABOVE: While the physical act of pouring wax and fragrance into the holder is simple, behind the scenes requires more steps. Jimenez-Muhammad shared how just gluing down the wicks is a task before the wax is melted.

LEFT: Once the wax is smoothed and comes together, Symphony Candles are ready to be lit and fill a room with comforting aromas. Focusing on better ingredients, Elijah Muhammad aims to create a better fragrance experience.

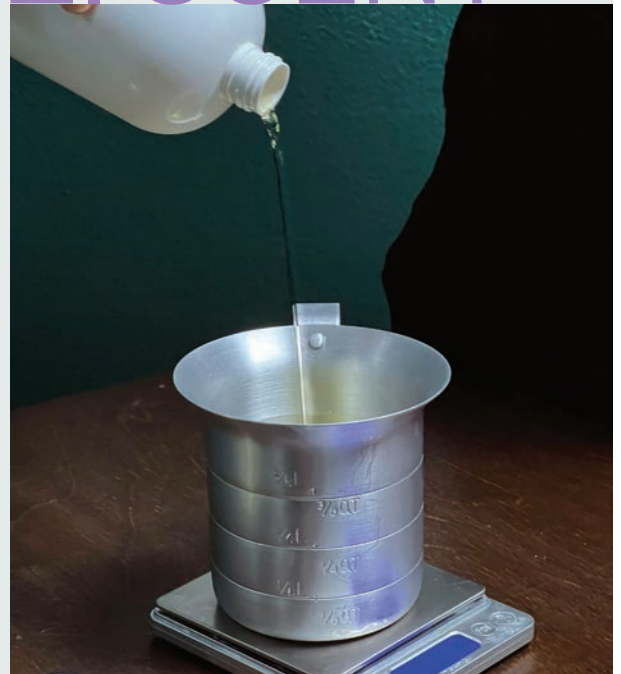


1. WAX



Once the wicks are glued down, Muhammad melts together his pre-mixed soy and coconut wax with beeswax to fill the candle. He fills it up to a line that provides a lengthy life to the candle.

2. SCENT



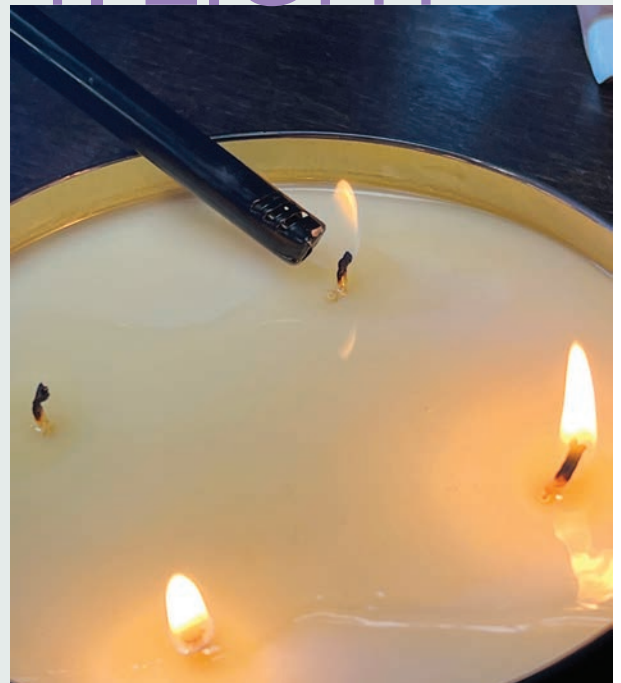
For the candle to bring forth a smell, Muhammad mixes unique smells for each individual candle. To ensure consistency and strength, he measures out each ingredient and pours it in with the wax.

3. HEAT



To help the candle form, Muhammad heats and smooths the wax with a heat gun. While forming the candle, he must make sure no hairs or dust get caught in the draft or it may be stuck forever.

4. LIGHT



With the finishing touches being done, each candle is packaged with label and ready to be sent out. Since Muhammad uses beeswax, the candle acts as a natural purifier when lit.



typically have a heavier tone and wood characteristics while the top notes are more citrus-like and are easier to express. Middle notes stay in between and serve to balance out the two chosen fragrances. Of course preferences play a factor when selecting a scent, and Muhammad is no exception as he tries to sneak sandalwood into almost every candle.

“Our top seller is called amber and moss, and so we have some persimmons in there that kind of serves as a top note and a middle note. Then there is some moss and some cedar in there that brings the tone down, but you still get this uplifting, inviting fragrance,” Muhammad said.

Just as the fragrances and notes unite, Muhammad and Jimenez-Muhammad work together at home to melt, mix, pour and label each candle to sell. Since they don't have a physical shop and spend a majority of the time with each other at home working, Jimenez-Muhammad said many people warned them to set time aside to be a married couple. However, she said it's beneficial and very natural that they do so much together. In fact, on top of their other jobs outside of Symphony Candle Co. if they were just friends or business partners, working together wouldn't be so seamless, Jimenez-Muhammad said.

“Our personalities, our working styles, everything kind of balances each other,” Jimenez-Muhammad said. “What he's good at, I'm not good at. He does all of the mixing and the pouring and actually making of the candles because it requires way more math and science. I do more of the aesthetics part, which is the labeling of the candles and our social media and our website and stuff like

that because it's more in my wheelhouse.”

Since they base manufacturing out of their home, friendships Muhammad and Jimenez-Muhammad have made across Waco with local businesses help them sell their candles in a more accessible and physical way than solely through their online shop. What started as relationships from church or connections through other friends has turned into business partnerships with Pinewood Coffee Bar, Waco Cha, Mission Waco and many other local Waco businesses. Muhammad said through every friendship-turned-business-relationship they create, it's filled with gratitude and excitement to see how each individual business gains success.

“Dylan [Washington] at Pinewood has always been a major supporter. I remember when they were just beginning Pinewood, we used to share dreams and what we wanted to do, and so he always told me whenever I do start something, he said, ‘You can absolutely sell it at Pinewood,’” Muhammad said. “Same way with Waco Cha. They are amazing people. When they got to a point to have their shop, they extended an olive branch to us. And same way with Mission Waco — that's actually where my wife and I met, and we met so many great people there and we have good relationships with people still at Mission Waco.”

Continuing to grow their business by being intentional with their ingredients, fragrances and friendships, Muhammad looks forward to the future of Symphony Candle Co. Paying attention to his passions, Muhammad has brought to life his own blend of smells that he hopes sets the atmosphere for others that brings comfort.

***“The cue for you to [think],
‘At this moment I’m lighting
this candle, I’m going to try and
be my best at this moment,’
so it’s me cleaning up, it’s me
studying, it’s me just spending
time with family making the
atmosphere cozy or whatever
atmosphere you want.”***

- Elijah Muhammad

CUE THE COZY: When you light a Symphony Candle, Elijah Muhammad hopes the candle's aroma matches the vibe of the room. Setting the tone for any moment with a candle is a large motivator for Muhammad to seek out better ingredients to provide a better experience.



SNIFFING OUT SUSPECTS

Story & Photos By Matt Kyle

Outside of fetching toys and eating treats, these officers have an important job out on the streets.

You might think the stereotypical favorite meal of police officers is doughnuts and coffee, however, there are some officers in the Waco police department who prefer Kibble and bacon-flavored Dentastix.

In addition to their human officers, Waco PD has four police dogs that assist officers in searching for drugs, people and more. The dogs' heightened sense of smell and responsiveness to training make them the ideal species for this kind of work. As such, these animals toe a fine line between pet and co-worker, and the officers who work alongside these dogs say they are an essential part of the department, for both their noses and the love they bring officers.

Officer Mike Bucher works in the K-9 unit alongside his canine partner, Andor, a 5-year-old Belgian Malinois. He said Andor has been in Waco PD for about four and a half years, and in that time, Andor has become part of his family. Andor lives at Bucher's home and when he is not on the clock, he spends his time roaming the backyard and playing with Bucher's children.

"He's kind of like my left arm," Bucher said. "I see him more than my own family. There was a couple times I've come to training and he's not in the car with me. I've even said before, 'My car squeaks differently.'"

Andor was born in the Netherlands and can respond to commands in Dutch. Bucher said many police dogs are born and trained in Europe due to the high standards dog breeders are held to. He said Andor was specifically bred to compete in dog sports but never competed and was sold to Waco PD.

As a police dog, Andor is trained to search for drugs or other contraband, evidence, missing people and hiding suspects. Bucher said police departments typically train dogs for one of two tasks, to either search for bombs or drugs, or for patrolling, so when the dogs indicate they have found something, officers know exactly what the dogs have found. Bucher said all the dogs in Waco PD are trained for drugs and evidence, while the McLennan County Sheriff's Office



has dogs trained to detect bombs.

Bucher said the dogs are trained through repetition and are taught to associate finding drugs with a reward of food or a favorite toy, which Bucher referred to as Andor's "paycheck." Bucher said this association leads the dogs to believe their work is a kind of game, which increases their enthusiasm for the job.

"That's the employee of the century right there," Bucher said. "Everything to this dog is a game.

When he goes out there and does it, he wants to work. He wants to please. It's in the dogs' natural drives, like a hunt[ing] drive. Something out of sight, he has to find it. The prey drive is, 'Oh man, the bad guy just ran, the rabbit ran. I got to go catch it.'"

Dogs' sense of smell is acute, and according to Virginia Bieluch, M.D. chief of infectious diseases at The Hospital of Central Connecticut through Hartford HealthCare, they can even detect diseases such as cancer or COVID-19. Dr. Jason Pitts, Baylor professor of biology, said dogs have one of the most highly developed senses of smell in the animal kingdom. In addition to detecting diseases, Pitts said there have been dogs trained to detect bedbugs by smelling the pheromones they give off to find mates and even to find specific species of mosquitoes that can carry malaria.

Dr. Micheal McCulloch is an epidemiologist for the Pine Street Foundation, a nonprofit that helps cancer patients and those with chronic illness find more treatment information, and said he worked in a lab that studied the use of dogs in diagnosing people with cancer. McCulloch said the dogs were trained similarly to police dogs and were rewarded with food for being able to correctly differentiate between control samples and samples with cancer cells.

To find the cancer samples, McCulloch said the dogs are able to detect cellular changes that occur when a cancerous tumor is present. In detecting COVID, he said the dogs can smell the biochemical signs of the immune system's response to the virus. In the lab, McCulloch said the dogs' success rate for detecting cancer was in the mid-'90s, which was sometimes better than computers being used for the same purpose.

When not chasing after "bad guys," Andor is just like any other



EXPLORING THE SENSES: While teaching various courses in the biology department, Dr. Jason Pitts is also conducting research on how sensory behaviors in anthropods connects in their brains to understand specific diseases. *Photo courtesy of Baylor University.*

READY TO GO TO WORK: Being partners for years, Andor and officer Mike Bucher have a close relationship that extends from the office to at home in the backyard.

Bred for a Purpose

Apart from sniffing for drugs, some breeds are great at other jobs.

1. German Shepherds



Similar to the Belgian Malinois, German Shepherds are often used as military and law enforcement dogs. They protect their handlers and also sniff out suspects.

Photo by Adam Kontor from Pexels

2. Golden Retrievers



A popular and versatile breed, Golden Retrievers hold many jobs most often used as service dogs such as guide dogs, seizure detection, and even therapy dogs.

Photo by Helena Lopes from Unsplash

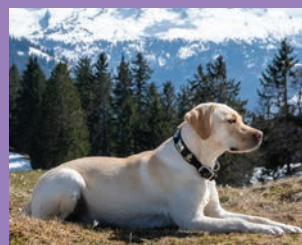
3. Border Collies



Border Collies are often used for herding livestock, such as cattle and sheep. If they aren't working, they will have tendencies to herd humans.

Photo by Lukas Ruzicka from Unsplash

4. Labrador Retriever



Another versatile breed, Labrador retrievers can be used for many purposes. One particular objective is search and rescue to find missing persons.

Photo by Ivan Louis from Unsplash

5. Beagles



Beagles are known for their excellent sense of smell. They are often used as detection dogs for sniffing out blood, explosives, human remains and illegal substances.

Photo by Artem Beliaikim from Unsplash

playful, happy dog. He loves to swim, run around, play fetch and receiving pets. Bucher said while it is discouraged for civilians to pet police dogs when they are actively working, the department encourages engagement between the dogs and Waco citizens.

"[Dogs] are one of the greatest PR tools ever," Bucher said. "If you want to get the community involved and come talk, pull out your dog and people will come from everywhere. A lot of times — like if I'm eating lunch or whatever — somebody will come up and say, 'Hey, can we meet your dog?' I encourage them to. I love it."

The dogs are so important to the department that they are even better protected than officers. Bucher said Andor's duty vest is both bullet- and stab-proof, where officers' vests are only bulletproof.

"The city loves the dogs more than us," Bucher joked.

Due to the specialized nature of Bucher and Andor's job, Bucher said there is almost never a routine day for the two. During the workday, Bucher said Andor rides along with him as the two patrol Waco waiting for a call. Whenever the need for a police dog arises, Bucher and Andor are called to the scene, which can sometimes happen after hours of patrolling.

Bucher said police dogs typically will work for about eight to 10 years before retiring. Once police dogs retire, they become full-time pets and typically get adopted by a police officer. Whenever it is time for Andor to hang up his badge, Bucher said there is no question as to who would be adopting the dog.

"The things that me and that dog have done together, there's no way I'm giving him to someone else," Bucher said.

"He's kind of like my left arm. I see him more than my own family. There was a couple times I've come to training and he's not in the car with me. I've even said before, 'My car squeaks differently.'"

- Officer Mike Bucher

TOP: From his time as a puppy, Andor has been trained to know when he is on the clock and when it's time to play. When Officer Bucher puts on his vest, so does Andor. *Photo courtesy of officer Mike Bucher.*

RIGHT: Even on the job, Officer Bucher still shows love to Andor when he does a good job and deserves a few more pets.



Super Sniffers

Dogs aren't the only animals with a strong ability to catch a scent. Check out these animals with incredible senses of smell.



Bears

Photo by Becca from *Pexels*
With receptors thousands of times more potent than humans, these mammals can detect fragrant camp food and can smell dead animals from up to 20 miles away. Because of hibernation, these creatures work hard and fast to secure food and can become aggressive when hungry.



Sharks

Photo by Samson Bush from *Pexels*
These dangerous predatory fish have olfactory bulbs that take up to 2/3 of their brain. They smell via the current, therefore the more the motion, the faster they are able to catch a scent. They can even detect a drop of blood in 100 liters of water.



Moles

Photo by Dirk Schumacher from *Pixabay*
While humans process images through sight and sound, these creatures accomplish that with their noses. It is called smelling in stereo and their noses help them find food to make up for their poor vision.



Snakes

Photo by James Wainscoat from *Unsplash*
With poor vision and hearing, these creatures use the prongs on their forked tongues help them detect odors and track their prey. While they are hunters, they still utilize their sense of smell to protect themselves and avoid bigger predators.



Elephants

Photo by Rachel Claire from *Pexels*
Imagine being able to smell water from up to 12 miles away. For elephants, they don't have to. In addition to being one of the strongest sniffers in the animal kingdom, their long trunks are used for collecting water, as snorkels, tasting, and even picking up branches.



Proboscis Monkey

Photo by Joris van der Zalm from *Unsplash*
Among all the primates, these monkeys have the longest noses, reaching nearly 7 inches. While not having particularly special senses of smell, the males use their noses to enhance their vocalizations by honking to attract females.

IT'S IN

GOOD

IT TASTE

Sour, Then Sweet

Story by Lukas Reyes

Instead of bracing for the tartness of a lemon, prepare your brain for the sweetness of a strawberry using this one Miracle Berry.

I will show you how to make the sweetest lemonade you've ever tasted. You've probably never tasted sweet like this before. It doesn't quite taste like cane sugar was used, nor honey nor any other type of sweetener. It is so sweet, in fact, that it is almost overwhelming. All you need is the following ingredients: 100% lemon juice and a small red berry from Africa. The steps are simple: You eat the berry and drink the juice.

The process of taste seems relatively straightforward. As a person eats food, the food rubs onto the taste buds on the tongue, which then sends that information to the brain. But the taste receptors and the brain can be tricked and confused by a berry the size of a coffee bean, which has the power to alter our senses.

Synsepalum dulcificum, more widely known as the miracle berry, grows on shrubs native to West Africa, under conditions similar to subtropical Florida. The berry contains a protein called miraculin, which binds to taste receptors on the tongue and allows them to interpret acidic molecules as sweet. In other words, it tricks your taste buds into thinking that sour things are actually sweet.

Typically, they can be bought as tablets with miraculin extract, or as freeze-dried berries. Upon consumption, the sweetening effects will last 15 minutes to two hours, depending on the

potency. The miracle berry's extraordinary properties are not just limited to lemons but apply to any acidic food.

After eating the miracle berry, I tried a variety of foods. Pineapple became ripened to perfection, and was the best of what I tried, with all of its acidity gone and a balanced sweetness replacing it. Strawberries were different too, as if I had rolled them in sugar beforehand. However, I did find that the taste of the foods does not change, but rather gets modified. Foods become sweeter but carry most of the same

flavors as they did before.

I decided to try the most acidic thing I had in my kitchen: vinegar. A small sip of vinegar greeted me with sweetness as well, but it was quickly overtaken by the harsh flavor, and was by far the least enjoyable trial I did.

The experience was unusual, to say the least. Perhaps it was my previous knowledge of the typical flavors of the foods I was tasting, but the sweetness seemed unnatural. Different from an artificial sweetener, but certainly not like natural sweeteners. It was interesting that each thing I tried was modified in a different way. The pineapple lost the acidic edge that so often accompanies it, while the strawberries simply became sweeter,

SURPRISINGLY TASTY: Dropping in with more than just a fun experiment, the Miracle Berry could be used for scientific purposes such as making vegetables taste sweeter for those who aren't fans, yet it still needs FDA approval. *Photo by Mallory Harris.*

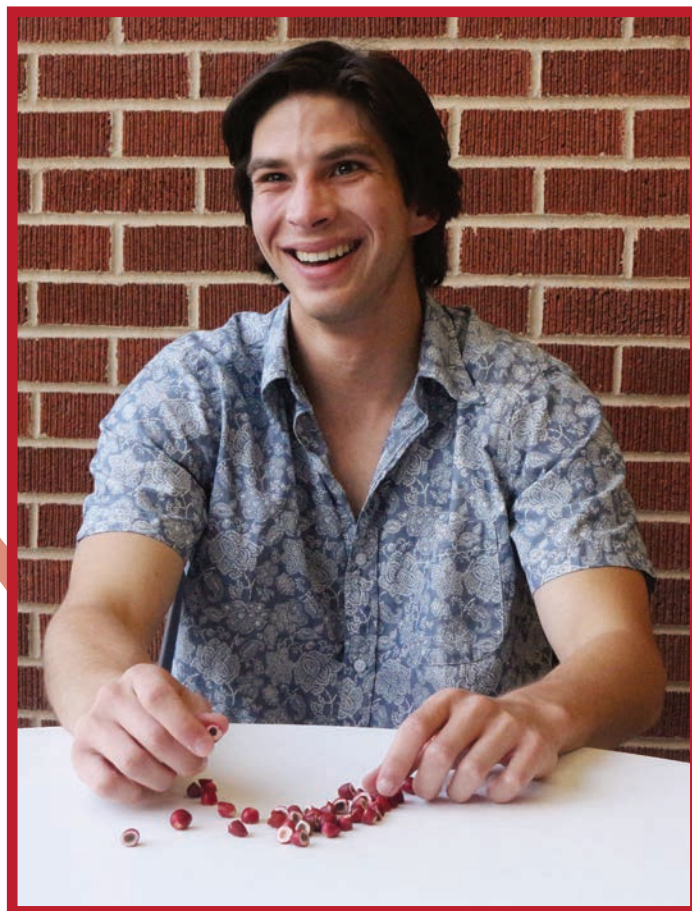




FAR LEFT: Clustered together, it doesn't take many berries to taste the effects. With the seed hollowed out, the package comes with the berries pre-cut to let you try it out over and over again. *Photo by Rachel Chiang*

LEFT: Reaching in for another half, Reyes used the berries to complete various trials to see how the berry altered sweet into savory and sour into sweet. *Photo by Rachel Chiang*

BELOW: For a science lab, Lukas Reyes tried the miracle berry and recorded his reaction to the new flavors he was experiencing. While the berry is small, it packs a punch. *Photo by Mallory Harris*



and the vinegar's flavors became too powerful for the berry to sustain its effects. I expected a consistency in the flavor modification, but instead found that miraculin only affects a specific part of a flavor composition. Aside from its mind tricks, this berry and the shrub it grows on are capable of much more than just taste deception.

There is a wide range of applications for this berry and its components. Studies have shown a potential for the infusion of this chemical into the foods we eat, with successful infusion with miraculin and lettuce. This successful integration shows the protein to have a possible use with typically unappealing or unappetizing foods, which can then be infused with this protein to enhance their sweetness and induce positive reactions from the consumer. Possible applications can also be seen in diet for a range of populations including children, diabetics and the average picky eater.

While the berry certainly has extraordinary properties, the other parts of the shrub it grows on have been used in

traditional Western African medicine for centuries. In Benin, the leaves are used as treatment for hypothermia and diabetes. Nigerians also use the leaves for diabetes treatment as well as a cancer treatment and to alleviate male infertility.

Currently, the FDA has banned the use of the chemical as an artificial sweetener. That decision has not been revised or modified since 1974. However, it is commercially available and can be bought at stores or online. Although its potential applications and benefits have not been determined in a modern scientific perspective, for hundreds of years,

traditional Western African medicine has proven its applications and benefits through their treatments extracted from this plant. The fittingly named miracle berry could prove to be just that: a miracle.

Whiskey Business

Whether it's the oak from the barrel or undertones of corn and butterscotch, Balcones Distilling will give you a flavor that will make you come back for more.

Story by Lukas Reyes Photos by Gillian Taylor

The rustic interior of the nearly 100-year-old brick building gives off a homey feeling when you walk into Balcones Distilling. The warm earth tones match its vibe, layered and accentuated by years of aging that give it a charisma unmatched by the new and flashy. Such is their whiskey, as well.

In 2009, Balcones released Baby Blue, which reinvigorated a centuries-old tradition of Texas whiskey making and distilling, cut short with the Prohibition in 1919. The first Texas-made whiskey in 90 years went on to win countless awards, including double-gold at the San Francisco World Spirits competition. The reason lies within the flavor and what it says about craft spirits in Texas.

Nick Fagner is a bartender in the Balcones tasting room but refers to his job as “multipurpose” because he educates his customers on the intricacies of the whiskey they try and thus sees himself as a salesperson as well.

“Baby Blue is actually a corn whiskey. It's made from a 100% roasted blue corn, grown in Texas. That roasted blue corn has a lot of nutty characteristics in it,” Fagner said. “In my opinion, the most highlighted flavor is this kind of nutty butterscotch and roasted corn flavor.”

The process of integrating these flavors takes time. The distilled alcohol requires years of aging in wooden barrels to properly mature and take on its desired flavors. Waco's weather, unpredictable to say the least, presents its own challenges. As temperatures fluctuate, so does the rate of maturation of the whiskey, according to Dustin Patterson, a production manager at Balcones.

“Temperature swings here are great. It gets really hot, and sometimes it gets really cold, and sometimes that happens within the same week. The heat will force the spirit into the wood, into the pores of the wood, and will pick up wood sugar,” Patterson said. “Cold will kind of squeeze that spirit out of the staves, back into the inside part of the barrel with the rest of the liquid. And it will bring with it all those flavor compounds.”

After enough time, the barrel-encased whiskeys are ready to be used. Depending on their flavor profile, barrels with different whiskeys will get mixed together to create a new product or to continue an existing whiskey line. The process of blending is essential to whiskey production and establishes continuity of taste, while allowing for experimentation.

“The vast majority of people are looking for a specific label, a specific brand that they know they like, and they know they trust. And they know that when they buy a bottle of it, they're going to get the same things they liked from the last bottle,” Patterson said. “The goal of our blending team is to ensure the highest quality whiskey, but a consistent high-quality whiskey.”





PACKED TO THE BRIM: To extract the flavor and provide the best flavor, Balcones keeps its whiskey in oak barrels for a set amount of time before deeming them ready to serve.



Balcones Distilling has eight available whiskeys on the market that are produced all year round as a part of their Classics collection. Additionally, there are 13 whiskeys that are either annual releases or single releases. Fagner's personal favorite of the Balcones whiskeys is the Texas Single Malt, produced with Scottish barley and aged in new oak barrels.

"I get a lot of pear and apple. Just kind of different tree fruits. It's really nice, and I think it comes from the grain itself," Fagner said. "It's so smooth, it goes down really easy, and it mixes well too if you want to have an old-fashioned or any type of Manhattan."

Reflecting the uniqueness of Texas

in their whiskeys is very important to Balcones Distilling. One of the ways Balcones does this is by ensuring that most of their ingredients are Texan. Their bourbon and rye are exclusively made with Texas grain, and aside from their flagship Texas Single Malt Whisky, all the other barley used for their spirits is home grown.

The Texas influence is most noticeable in Brimstone, their smoked whiskey. Made with Texas scrub oak, the burnt-orange color liquor embodies one of the pillars of The Lone Star State: barbecue. This, paired with hints of fruit, will make any Texan feel at home. Flavors such as these are a result of experimentation, which is a key part of

ON TAP: When giving tours of the facility, Balcones offers their own product for tasting on tap. With different flavors available, anyone can find their favorite new whiskey.



the creation of new whiskeys and the refinement of older releases.

“We do a lot a lot of experimentation, and so sometimes we’ll do an experiment not knowing what’s going to come and not knowing if we’re going to turn it into anything,” Patterson said. “We don’t have a ‘recipe’ for anything yet. We’re still constantly tweaking and constantly steering the spirit.”

Moving forward, Balcones Distilling looks to keep this high standard for their products and to introduce new spirits to their selection. In doing so, they hope to expand their customer base and to retain their current customers.

“Balcones is a homegrown operation, and now we’re international. And we love what we do and we’re happy to spread the gospel of Texas whiskey,” Fagner said.

“The goal of our blending team is to ensure the highest quality whiskey, but a consistent high-quality whiskey.”

- Dustin Patterson

Texas Whiskey History... Or Lack Thereof



1919

Texas voters approved a state prohibition amendment

1933

21st Amendment repealed Prohibition

1935

Texas voters ratified a repeal of state dry law

1984

Congress requires all states to declare minimum drinking age to be 21

2009

Balcones receives its distiller's permit & hits the market with Baby Blue

Sources: Texas State Historical Association, Texas Whiskey Association, Texas Monthly



FAR LEFT: Distillation happens when whiskey is heated, condensed and collected. This process typically happens in a still, a large apparatus used specifically for distilling. At Balcones, there are four copper stills that boil, cool and control the alcohol vapors that make its whiskey flavorful.

LEFT: Little do many people know that whisky refers to Scottish, Canadian and Japanese whisky, whereas whiskey is used for bourbon, rye and Irish whiskey. While it can be confusing, they both refer to specific types of alcohol that people enjoy.

BELOW: To maintain consistency of taste and quality, small tasting jars are made after certain batches of whiskey are distilled. With flavor profiles written down, the team at Balcones takes time to taste their own product and see that it matches their description.



CAN YOU HEAR ME?



YES I CAN



Turn Up The Volume

Balancing school and music looks easy for Houston freshman rapper Bōlají, as he grows his audience with new sounds, skills.

Story By Mallory Harris

Photos courtesy of Bōlají Oyedepo

“My first time in the studio, I think I spent all my money on this studio, and then I come back and I go in the car and play it for my dad, he looks me in the eye and says ‘This is trash,’” Houston freshman rapper Bōlají Oyedepo said. “Looking back at it, if he had lied to me, who knows where I would’ve been, and so from there I really worked on my voice more and reworked my setup from there.”

Releasing his first album, titled “Bōlají, in 2022 and with over 38,000 current monthly listeners, Oyedepo — more known by his stage name Bōlají — has been crafting his musical abilities since kindergarten. Giving “big props” to his mom for seeing his talent at 4 years old when he started playing piano, it was his kindergarten teacher who heard something special in his voice while in choir. Over the years continuing to be in church and school choirs, Bōlají kept playing piano while picking up drums and learning about melodies and what sounds good. As his first memory of writing music goes back to 2019, he still counts those experiences as learning moments to build up his confidence and songwriting skill.

“Around that time and before that I wasn’t as confident, I was insecure of myself and so I would write a song and be like, ‘Eh, is this good enough?’” Bōlají said.

Although there was a moment in high school where his music was paused

for him to pursue basketball and soccer, Bōlají knew music was where he needed to be because it continually followed him. Despite his own doubts, Bōlají continued to work on his craft and during the COVID-19 pandemic wrote, recorded and released a song with his sister on social media that caught the attention of local news. While this track was inspired by his mom, and she continues to be an influence in Bōlají’s writing today, this was the first moment where people outside of his immediate circle gave their opinion on

his music. With a small snippet of success and name recognition, Bōlají knew if he put in the effort he could become something bigger.

“From that, I was like, ‘Now I gotta drop something that I really like,’ because to me I didn’t really think it was my best,” Bōlají said.

Consistently being in the studio and writing his own music, Bōlají feels that he’s broken the code to having his music sound different from other artists. Taking influence from Frank Ocean and other artists, Bōlají said he first makes a melody in his mind then pays attention to the lyrics. The majority of his lyrics form a story that’s either happened to him personally or a story that he thinks is really interesting that’s he’s been told. For example, Bōlají said his song “Lavish” is a true story that happened to him with his dad where he needed to be content and grateful with what he had. His song “Intentions” has a lyric saying he had \$50,000, which in reality isn’t true but goes with a story he was told. Writing songs that he feels are relatable and are from other people’s perspectives is what gets him excited about his own music.



ABOVE LEFT: During his short time at Baylor, Bōlají has been around downtown Waco taking album art photos and even shooting a music video.

ABOVE: During a recording session in Atlanta, Bōlají spent time with his Palace Floor partner Chicano Blues to create new music. Since during the school year he doesn’t get much time outside of studying, Bōlají makes the most when he’s in the studio.

Another layer of making his music that Bōlají enjoys is the recording process because of his choir background. The layering of harmonies and stacking the production is where he sees his style come through. While other artists go back into the studio to add ad libs to their songs, Bōlají said he goes back in to have fun and see how he can make the music his own.

“The first thing they say [when people hear my music] is that you can really tell the artistry, the musicality, [because] a lot of people when they go through a song one layer, but me I go back in and I’m adding layers, harmonies – that probably stems from me being in choir — but I’m just adding a lot of stacks,” Bōlají said. “Definitely recording is my favorite part, and coming up with the idea, just that vibe of when you know that you hit it, it’s the best feeling.”

Even though he’s been more intentional about dropping music consistently, Bōlají said it took him his entire first semester at Baylor to figure out his own schedule and that balance between work and school. During his first semester, he focused on his studies and didn’t have much time to write music or record. Bōlají is also part of the duo Palace Floor with Atlanta producer Chicano Blues, and while their music has become popular in 2022, Bōlají knew this was another thing on his plate to balance. However, by getting a planner in the spring semester he’s been able to schedule his days to have at least an hour of music every day either practicing or writing. While being a student and an artist comes with challenges, there are ways Bōlají has had the college atmosphere work to his advantage, such as fan growth and recording spaces on campus. Using audio booths on the garden level of Moody Memorial Library, Bōlají said it’s beneficial compared to when driving to the studio in Houston just because of time.

“I have a set time to do what I need to do, so that I can focus on studying because obviously I’m here and I don’t want to waste being here getting my degree regardless,” Bōlají said. “Definitely on the breaks, every single break I’m somewhere. I was in Atlanta the last [winter break], and I take that and I spend a lot of time [working].”

Although one of his least favorite aspects of being an artist is promoting his own music and his name as an artist, Bōlají

uses social media to put his name out there with the help of the Baylor Music Industry Club. San Antonio junior Milo Langmore, president of the club, said the group focuses on helping promote student artists and is open to those interested in going into the music industry. Finding Bōlají on Spotify, Langmore said he grabbed lunch with Bōlají and explained the club’s strategy and they partnered up. When choosing artists to promote, Langmore said the club makes sure it’s someone who has put in the work, has quality music students are interested in, and has aspirations to seriously pursue music.

“He mentioned to me later that he didn’t have that high of expectations about our club, but then after we put on a couple of concerts he came back to me and was like, ‘You know y’all really went past my expectations,’” Langmore said. “I feel like he’s a really good artist and I think he’s growing exponentially, and so I think Bōlají is going to be huge by his senior year.”

While still young in his career, Bōlají said the consistent support from his family has been a big factor that’s allowed him to explore his music and take risks. Being Nigerian and the first-born in his family, he understood that he needed to set the example for his siblings. When he sat down with his parents to discuss his music as a serious career path, he assured them that he knew it was scary but worth the risk.

“I know this is my purpose and I know it’s hard especially since anyone can make music, but it’s just one of those things where this whole thing is risky. I know how it looks, but just trust me on this,” Bōlají told his

parents. “Even with me showing results, I know that helped too, but just me putting in the work and them seeing that and they’ve been fully supportive.”

Bōlají said his music is for people who are open-minded. Langmore shared the same sentiment, saying it’s very broad and most people can find a beat or lyric they resonate with. As social media helps Bōlají expand his reach to new listeners, he’s been able to remain an independent artist and be in control of his own music. Looking forward to earning his degree and making more music along the way, Bōlají is making his own path.

“I know this is my purpose and I know it’s hard especially since anyone can make music, but it’s just one of those things where this whole thing is risky. I know how it looks, but just trust me on this.”

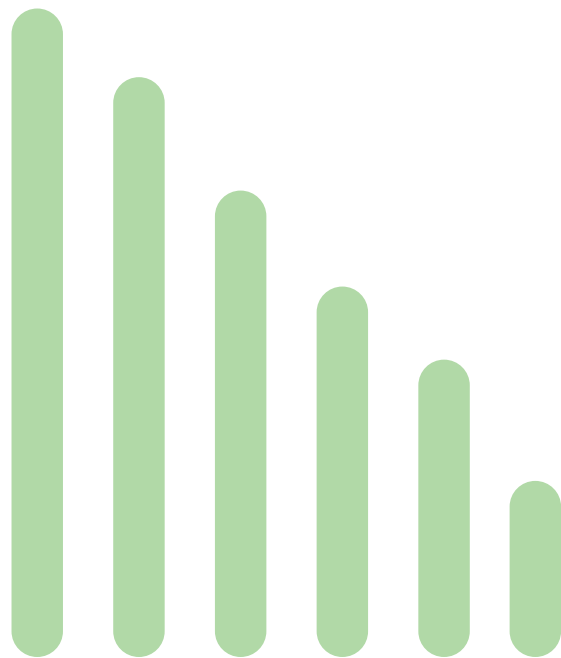
- Bōlají

SCAN TO TUNE IN





ALBUM ART: As his music gains listeners, Bōlajì continues to be engaged with his followers by performing locally in Waco. You can also find him on Spotify and Apple Music.



LATE STUDIO NIGHTS: While the recording studio provides the some of the best acoustics, when working with Chicano Blues in Atlanta, creating music can be done anywhere. Whether it's late at night or in the middle of the day, Bōlajì tries his best to make his music exactly how he wants with his own writing.



Show Me A Sign

The first deaf professor at Baylor speaks about growing up deaf and how he advocates for the Deaf community in Waco.

Story By Audrey Patterson

Photos By Gillian Taylor



Imagine a world where people communicate visually through sign language and live without stigma. This world exists in Deaf culture. It's a place called Eyeth, where life centers on the eye — a society designed around visual communication regardless of hearing status. Deaf culture is rooted in storytelling passed down through generations. Eyeth is a utopian world that has been adapted into books and movies but originated as a story from deaf people.

But on Earth, in an audio-centric society, deaf and hard-of-hearing people know all too well how far the reality of an equal existence is. According to the 2011 American Community Survey, about 3.6% of the United States population is deaf or has severe hearing loss, meaning the average hearing person doesn't have intentional relationships with a deaf person.

Dr. Lewis Lummer, a senior lecturer of deaf education and American Sign Language at Baylor University, was born deaf and comes from a deaf family of four generations.

Lummer said that growing up, deaf people would tell him all sorts of stories and they were interesting because you never knew if it really happened or if it was made up. Storytelling is cherished among deaf people and Lummer and his family because it passes down experiences, uplifts deaf people and preserves the heritage of their language.

"I grew up using ASL as a natural language," Lummer said through a sign language interpreter. "I grew up thinking of it as normal because I assumed everybody outside my family used ASL and communicated with their hands. Then I started to notice that other people didn't know sign language, and I thought that was a little odd."

Lummer said his parents, who were also deaf, were excited for him to be deaf because they saw him as healthy and normal. He said they appreciated him and accepted him as their whole child immediately.

"We [deaf people] have our barriers, but we do not let that stop us. The term 'can't' is not in our vocabulary because it does not exist. My family always taught me, 'Don't let that get in the way of anything you want to do or pursue,'" Lummer said.

Lummer said he is proud to be raised by deaf parents and views them as strong people. His mother immigrated to America from Germany during World War II because of the threat of concentration camps targeting deaf people.

"They taught me not to sit around and just be, but as a result of my life, I was able to persevere. They gave me the teachings of God, and I was able to overcome a lot of obstacles in my life," Lummer said.

An obstacle for many deaf people is their treatment during primary and secondary education. Accommodations some schools have in place now were



MAKE IT MAKE SENSE: Teaching American Sign Language as the first deaf professor at Baylor, Dr. Lewis Lummer uses his face along with hands to teach students different phrases.



COMMUNICATING FROM AFAR: While earning her own degree and gaining her own life experience, Dr. Lummer's Ruth, who is also deaf, continues to push for awareness and education surrounding the deaf community. *Photo courtesy of Lewis Lummer.*

"We have our barriers, but we do not let that stop us. The term 'can't' is not in our vocabulary because it does not exist ... My family always taught me, 'Don't let that get in the way of anything you want to do or pursue.'"

- Lewis Lummer

originally looked down upon.

Lummer emphasized the Milan Conference of 1880 in Italy, the first international conference of deaf educators, where "they voted and decided that oral education was superior to manual education. They were banning sign language and forcing people to do an oral method of communication."

The shift in the American education system from verbal to using a combination of sign and verbal in the 1970s heavily influenced Lummer's experiences at school.

"I did sign language at home, but doing sign language at school was viewed as incorrect, and they wanted us to depend more on the English code," Lummer said. "So I wrote and read English in class and used ASL outside the classroom. Fast forward to the 1990s, English and American Sign Language were viewed as two separate languages."

Ruth Lummer, one of Lummer's three sisters, is also deaf and said via email that she first attended school in a self-contained deaf class because the school didn't want to publicize deaf students. In 10th grade she transferred to Model Secondary School for the Deaf in Washington D.C., where the school met her educational needs.

Ruth said while there are benefits to not hearing, like an increase of the other senses and the ability to work in noisy environments, there are significant social drawbacks such as stigma and discrimination she experiences.

Lewis said that socially he's been pitied and viewed as lower and incapable. He said when it comes to "socializing with hearing people, I have to have a hearing perspective embedded in me because if I don't, then I'm completely lost."

Lewis said there was one night he left his house keys in his office. He said he tried to contact the police department and spent 45 minutes waiting outside the building by a speaker and a camera. The police spoke over the speaker, but Lewis couldn't hear them, so eventually, he said a police officer came out to him.

"Even then, when they showed up, they didn't believe I was an employee there," Lewis said. "I had to show my badge and business card to prove that, and they were kind of shocked at the fact that I had a doctorate degree just from their body language. It felt disrespectful, and I was offended."

Negative beliefs about deaf people and discrimination habitually follow Lewis and his sister.

"When I graduated from Gallaudet [University] with my B.S. degree, I applied for teaching positions in the state of Illinois," Ruth said. "The educational system there won't hire any deaf teacher who can't speak with voice. That was the worst discrimination I've ever faced."

Lewis believes etiquette is an important step toward the unstigmatized existence of deaf people as described by Eyeth. Hearing people typically view phrases like "hearing impaired" as a respectful statement, but Lewis said deaf people see it as an insult.

Lewis said using the word "loss" is considered a forbidden word in the eyes of the Deaf community. He said it is an insult "along with terms such as hearing impaired



and hearing disabilities. Screaming [internally], making a loud noise and things of that nature stay in our minds all the time. We respect people who are not like us.”

Ruth said hearing people need to understand what it is like to be in her “deaf shoes” to eliminate possible complications in personal relationships.

“Don’t expect me to lip-read and speak with my voice. It is the best practice for hearing people to use ASL to communicate with me or have an ASL interpreter,” Ruth Lummer said.

Rather than remaining silent about discrimination, Ruth and Lewis are advocates and encourage those around them to learn ASL and understand their deaf experience.

“Lewis’ greatest strength is being a great advocate for our deaf education and showing sincere passion for ASL,” Ruth said.

Lewis has lived in Waco for the past two decades and has been an active member and leader in the Deaf community. Lewis said he is an ASL storyteller at the Waco library for children around 3 to 17 years old who are learning sign language.

“I am able to be there for the children if they have any questions,” Lewis said. “I tell them that it’s a gift that they were born with, and they can improve in that skill if they continue to learn.”

Lewis said there are not a lot of opportunities or support for deaf people in Waco. There are more so in Austin, where there is the only Texas school for the deaf and an increasing population of deaf people.

Lewis said he is working with leaders at the city of Waco to

promote better quality of life by helping the city “slowly gain awareness and realize that every deaf individual is unique and a human being. Baylor continues to support and work with the deaf community through us in the Deaf Education, ASL program.”

Lewis is also the first and only deaf professor at Baylor and has lectured for the past 14 years. Lewis said he would love to see Baylor hire more deaf professors, as he wonders if he’ll be the first and last one to work at Baylor.

“I don’t feel like ASL is viewed as equal here [at Baylor] as compared to other languages that are spoken here, like Spanish, for example,” Lewis said. “When it comes to ASL, it just feels like it’s not accepted. It’s kind of sad because this is a language I’ve used since I was a child, and the language and the deaf people at Baylor are invisible.”

Despite ASL being denied entrance as part of the College of Arts and Sciences core curriculum, Lummer said he hopes to see the campus view ASL as an important human language to use in their daily lives. While the proposal failed with a 12-12 vote on Feb. 9, 2023, according to The Baylor Lariat, many people have tried to incorporate ASL into the Baylor curriculum.

“My vision is to encourage people and for them to gain self-acceptance and know there’s nothing wrong with them,” Lewis said. “Also, just making sure we’re forming connections with ASL and allowing ourselves to be liberated with signing.”

A society using signing like the dream of Eyeth might seem far away. Still, deaf people live every day with communication just as rich, intelligent and personable in a world without sound.

Recognize These?



Yes



No



Thank You



Please



More



I Love You



JUST A

It Takes the Human Touch

Story by Rachel Chiang

Photos by Elliot Dunham

In a world with increasing artificial intelligence and technology, there are just some things that simply rely on human touch. Dr. Karen Thomas, a part-time lecturer in harp at Baylor University, and Florida graduate student Krista Haglund reveal their experiences on how the human body reacts and adapts to years of practice and the skill it takes to master the delicate instrument.

Haglund and Thomas both knew from a young age they wanted to pursue a career in music. While they did not actively seek out the harp, they both stumbled across the instrument and eventually fell in love with it.

“I just couldn’t imagine my life without harp,” Haglund said. “There was just nothing else I really loved that much and [was] really that interested in and brings me that much joy.”

Haglund compared the harp to the piano, because, like the piano, a harp contains pedals the player manipulates with their feet to change the chromatics of the strings they pluck. However, unlike keys one would press to create a sound on the piano, the strings of a harp and the sound created are dependent on how the player manipulates it.

“The real challenge with harp is figuring out how to sustain the sound and how to sustain a phrase,” Thomas said. “The way we come away from the string directly affects the sound.”

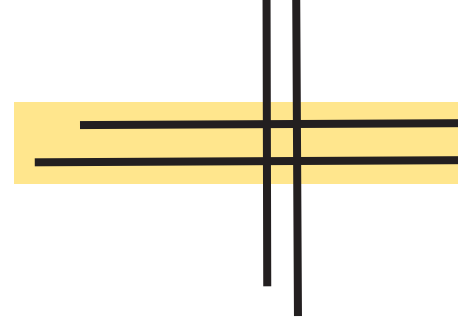
She described how short, quick movements of the fingers create a short staccato sound while digging into the string and pulling away creates a longer, sustained sound.

Due to the intricate skill required to play the instrument, it requires a lot of practice and proper technique to produce a strong tone.

“The technique is loud, slow playing for extended amounts of time because [that’s] how you train your muscle memory,” Thomas said. “Everything is like lifting weights in a way, and so each fingertip has its own weight, and we don’t rely on any other part of our body. Now we have a support system in our shoulders and our elbows and our wrists, but the strength really comes down to the fingertips.”

Eventually, harpists will be able to gain muscle memory in their fingertips, posture, and even feet. Haglund shared how she often

FEELING



Years of mastering an instrument can be seen through an exciting performance, but taking a glance at a musician's hands can tell about their journey to that performance.



ABOVE: Krista Haglund originally started playing piano when she was 12 years old. Although because she did not particularly enjoy it at first, she discovered the harp that same year and immediately fell in love with the instrument.

BELOW: Dr. Karen Thomas has been playing the harp for nearly three decades and also dabbles a little in piano.

relies on muscle memory during her performances and when the nerves get to her. It is one of those things that even if someone has photographic memory, muscle memory is what people fall back to. While developing muscle memory from extended periods of practice is crucial to mastering the instrument, Thomas emphasized the importance of taking breaks and stretching as well.

"You have to take care of your body physically, and you need to be doing some type of yoga or stretching or weightlifting because that's just as important to maintaining your physical posture at the harp," Thomas said.

She also said how when she was younger, she would practice through pain, but now she has learned to walk away from that and intensely work for 30 to 45 minutes at a time. She encourages her students to take a 15-to-20 minute break every hour while practicing.

"The practice time for a music major never ends," Thomas said. "I don't think non-music majors understand that. The demand for the amount of music that has to be learned in a very short amount of time is very high, and it's physically exhausting."

Just like a musician may prepare a piece for a performance, once they begin performing in recitals, Thomas said they must also in turn practice how to perform at those recitals. While she agrees with Haglund that muscle memory can be crucial at times during performances, she notes that many outside factors can hinder a musician's ability to recall or simply perform, and these could be as simple as the humidity, the cold, or even sweaty hands. She also said the mental capacity it takes to perform a recital is taxing, and that giving a recital becomes physically taxing because it is so mentally demanding. Despite everything, she said, sometimes you just must trust yourself and go with the flow, but only if you have done the work.

While Thomas and Haglund say they enjoy performing, teaching is a big part of their craft. A musician cannot rely on only performances to get by; learning to hustle and teach is also essential in being a musician, Thomas said.

"Music is for everybody, and people should never be discouraged about trying to pick up an instrument or learn an instrument," Thomas said. "You know it might not be their profession, but it's just like



learning another language — you'll have a better understanding of this long tradition that's been before us."

Haglund said teaching feels more real as you can see people be passionate about something and experience that human connection. She said one of her favorite performances was at a nursing home and how the nurse revealed to her that the patients rarely, if ever, had sat that quietly for so long. Haglund says as a teacher, she is able to see more of those moments happening behind the scenes at performances.

"What I care about is seeing you get excited about something, finding something you're passionate about, making something creative," Haglund said.

Haglund also adds that another way to practice other than just playing your instrument is by showing up to rehearsals and just listening. She said you can learn a lot about the music in front of you without even playing anything.

Another major factor that comes with years of playing is the formation of calluses. Thomas said calluses will form on the fingertips and it affects their playing. She emphasized the importance of proper callous and blister care to prevent injuries and to create the best sound when playing.

Thomas said that she never plays her harp after she has just been in water, whether that be in the pool or the shower, and avoids putting on lotion as it can fill into blisters and become painful. She even noted that having fingers that are too tough can affect the sound produced on the harp as it affects the way the string is being pulled. Outside of fingertips there are alternative options to playing, such as using guitar picks, fabrics such as felt, and even spoons, Thomas said. However, while those alternatives can create unique and fun sounds, there is truly no item that can emulate the sound human fingers create, she said.



"Music is for everybody, and people should never be discouraged about trying to pick up an instrument or learn an instrument. You know it might not be their profession, but it's just like learning another language — you'll have a better understanding of this long tradition that's been before us."

- Dr. Karen Thomas



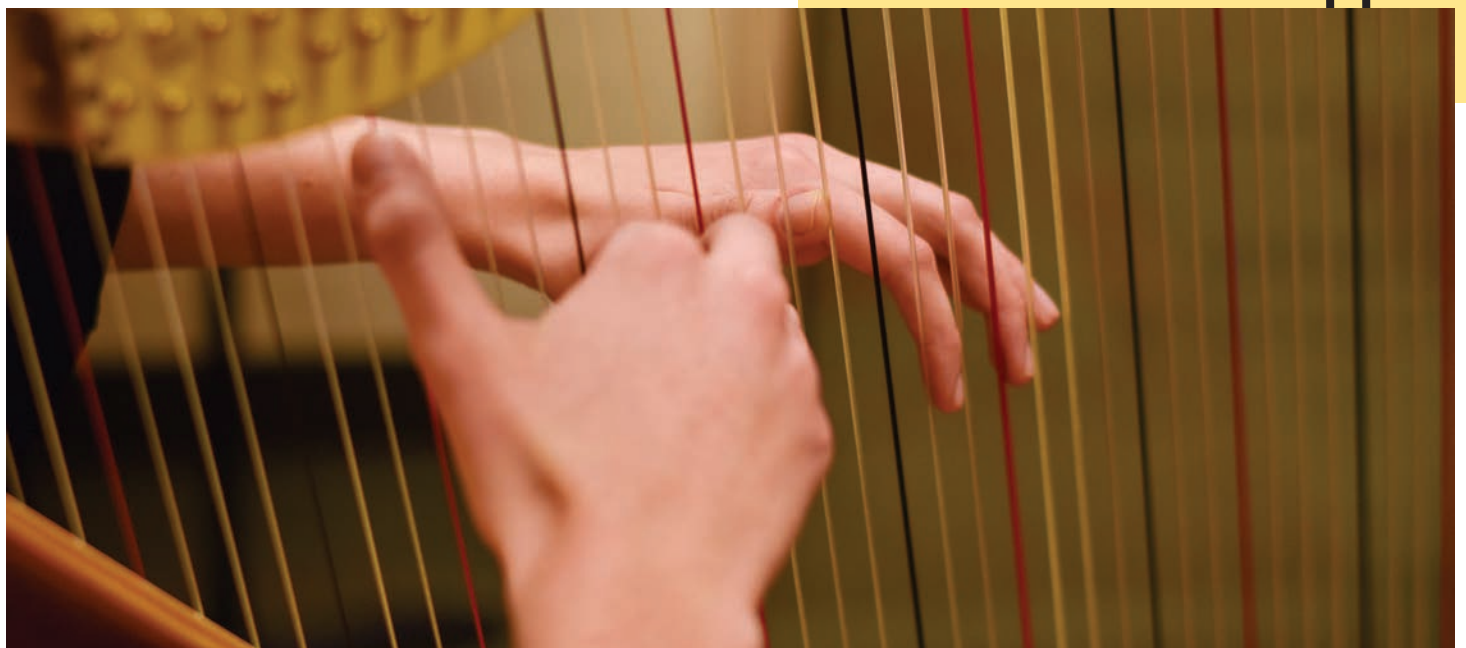
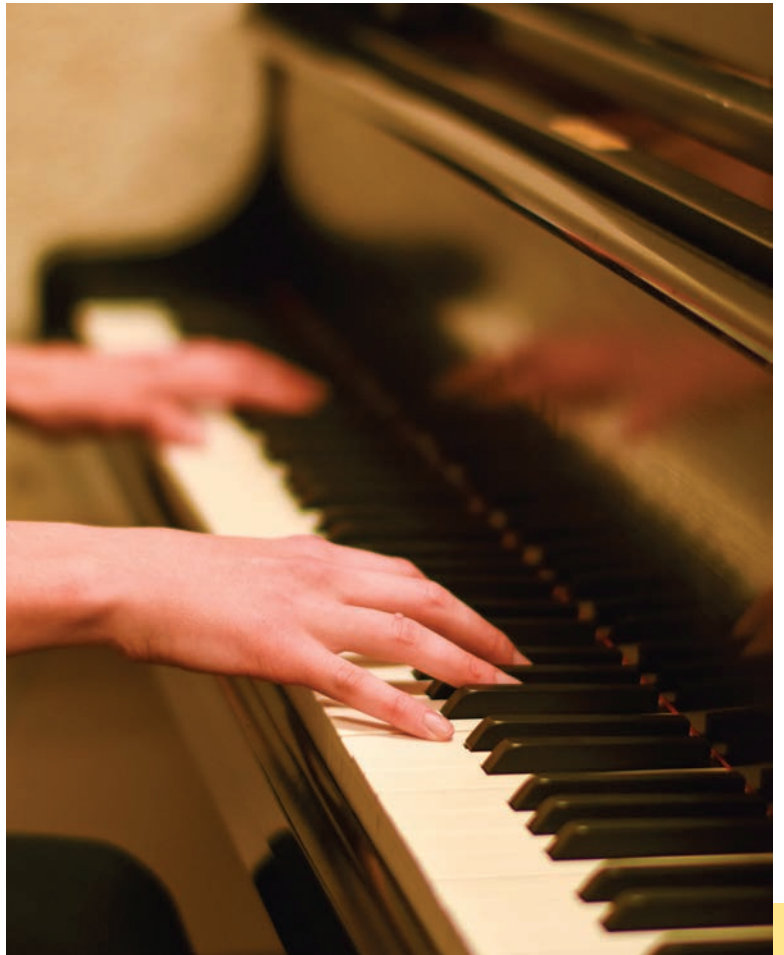


LEFT: Showing off her skill, Dr. Karen Thomas talks about how the support system within the body helps her fingers produce the correct sound when playing the harp.

ABOVE: Musicians spend hours and hours practicing music to perfect their playing and their performance, paying close attention to dynamics and notes in the margins.

RIGHT: As a first-year master's student at Baylor, Krista Haglund earned Bachelor of Arts degrees in harp performance and piano pedagogy from Bob Jones University.

BOTTOM: While the piano and the harp have similar attributes, such as a pedal and fingers, harpists require more callous care than pianists. Haglund ensures her hands are taken care of no matter what instrument she plays.





Be sure to check out
BAYLORFOCUSMAGAZINE.COM



Baylor University

COLLEGE OF ARTS & SCIENCES
Department of Student Media