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PAYDIRT

The SAC Issue
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Critters, Caves, Clubs
October 11th, 2021

In This Issue:

SGA Meeting Rundown: 10/05/21

1. ANNOUNCEMENT: Paydirt is currently looking for a journalist to hire! If you are interested in writing for us, email paydirt@npe.nmt.edu.
2. The first dish to win a Chartwells Cookoff, a Carne Asada Torta created by the team known as Gordon's Donkeys, will soon be offered at Chartwells for a time.
3. 80 people attended Tech's first bonfire, labeling the event as a success. Plans are in place to have additional fuel for the fire next event. In other event news, a hot chocolate day is in the works for 'rainy, gloomy' days.
4. Tim Bonzon, Student Activity Technical Director, has resigned from the SGA. Read the SAC article in this issue to find out more.
5. The COVID Forum was just before this meeting at 6pm. It will be posted online.
6. Definitions for the SGA Constitution will be updated by the Supreme Court, with an emphasis on clarifying things overall.
7. A new Vice President for Student Life is being hired! The current candidates are being invited to campus next week, where students and faculty are welcome to ask questions. Candidate David Greene will be in Fidel Ballroom C from 10:30 - 11:30 on October 11th, Peter Phaiah at the same time and place on the 12th, and Keith Champagne at the same time and place on the 18th.
8. An official SGA/Tech Discord has been created and is going through testing before being opened to the public. There needs to be verification in place in order to prevent 'clowning going on in the server.'

Sudoku

3	7		8					
2							4	9
9				1				
		5	4				9	
				2	3	7		6
			9				2	
			6		9		3	8
	8				7	1		

Smash Bros Club

The NMT Super Smash Bros. (SSB) club is centered around a love for the franchise itself. The series is a unique crossover fighting game that uses characters from across the Nintendo universe. The series first started in 1999 with the original Super Smash Bros. that was playable on the Nintendo 64. The game separated itself from other fighting games by its objective of throwing the other player off the platform rather than depleting their health status to win.

The game has come a long way since its original N64 game. It now has five installments in the series and an ever growing fanbase. The game, over time, has also added more playable characters. The original SSB game had only 12 characters you could compete with and the latest release, Super Smash Bros. Ultimate, had 74 on launch with even more downloadable characters. This leaves a wide variety of characters for players to main.

Never played SSB before and don't know what a "main" is? No worries. To main a character in a fighting game means that you play as that character almost every time, and you have gotten specifically better playing with the character.

Fernando, the Vice President of the club, has been a part of the club for almost four years now. Despite his tenure in the club, he has been playing SSB essentially since birth.

"I played [SSB] Melee when I was a wee lad but I spent most of my childhood playing Brawl...It's got a lot of characters I like in it and I like how polished the game looks."

As VP of the club Fernando takes part in the weekly SSB tournaments the club puts on. Every Friday at 6pm, the club hosts in the SAC a friendly tournament for members of the club and community to take part in and battle for ultimate SSB glory. Towards the end of the tournament, players will get together and also play friendlier rounds with more casual rules turned back on.

The SSB club is popular on campus because of how casual or competitive the game can be. "The pros of the club are just everything," Fernando says. It's a great spot to meet other SSB fans and find an outlet away from school. Plus, the club occasionally gives out prizes for the tournaments.

The SSB club at NMT is a great opportunity to find like-minded gaming friends that love SSB as much as you do. Or, never played SSB before but you're interested? Stop by the Friday tournaments to find out how much fun the game can be. If interested in joining the club, email the officers at smashclub@npe.nmt.edu.

- Alexandra Sartori

Paydirt Satisfaction Survey: 10/11/21

Hello Paydirt readers! Now that we have more students on campus and the semester is in full swing, we thought it would be only fitting to hold another survey. As with our previous surveys, they are fairly short, and if you include your Tech email at the end, you will be automatically entered into a chance to win a Cards Against NMT deck!

These are old collectables created by Paydirt several years ago. Despite their age, they still have many relevant black and white cards for you to enjoy with your friends. It is designed as a booster pack, and might be best utilized with other cards from the base game, Cards Against Humanity.

You can go to the survey at this link: https://forms.gle/ZHX8Lc4uur79gd2A9
You can also use the below QR Code.

Campus Life

"Music is the strongest form of magic." - Marilyn Manson

The SAC Issue

If you're reading this, chances are you have at least a vague idea what the Student Activity Center, otherwise known as the SAC, is. In addition to currently housing Campus Police, it hosts an ensemble of events and clubs, including Swing Dance, Yoga, and Smash Club. These are held in the auditorium, the primary space for such things in the SAC. But if you're reading this, chances are you are unaware of the other offices present in the SAC, much less the state of them.

At the 9/21/21 SGA meeting, SATD Timothy Bonzon reported that, to put things short, much of the SAC was 'inoperable.' He described a bleak situation of infestation and contamination across multiple spaces within the SAC, compounded by a lack of action from various facilities. He also went on to explain what actions he had taken in an attempt to fix the problem, despite the setbacks created by other departments. Surrounding this article are several of the pictures taken of the scene. We would provide pictures of the work Tim has done to clean the SAC, but even now it is not fully cleaned due to delays from other groups.

Before I continue, allow me to introduce Tim himself. He is a junior in Chemistry, having transferred to Tech from Central New Mexico College last year. "That was right in the middle of COVID, nothing was happening, it was all online." When Tim "saw things were opening up, and that the SGA was starting to adjust to an open campus," he applied for the SATD position. This position oversees the capabilities and spaces students use at the SAC, and is crucial in running events across campus. Tim "had worked in audio-visual at [his] church for 8 years, and was familiar with the SAC space after interviewing for the podcast." As a note, this podcast was a plan started by myself and the previous SATD and SACD. It was intended to bring some life into KTEK radio, but due to COVID and the other two heads leaving, it never took off the ground. We did, however, get to interview people before the project got tabled, and Tim was one of them.

In regards to the situation at the SAC, I will let Tim's experience speak for itself.

"I expected I could get podcasts and student activity back in the SAC. Those were my motivations for taking the position. That's what I thought I would be working towards, but I quickly found out the challenges of this job would be of a different nature."

"When I first came to the SAC there was mouse poop everywhere, especially in my office. It was on the shelves, by the desk, by the refrigerator, at the server room. I opened the door, looked at everything, took a few pictures, then walked out. I didn't come back until later that week where I took more pictures [for] documentation. I appraised the office, the recording studio, the radio station room, and the sound booth. It was pretty clear that some serious work needed to be done on the office space [and that I couldn't work there].

"I came to the recording studio on Thursday the next week with some rubber gloves, spray, and vacuums; I sanitized that and made it to the space where I could work in. As I was working there to get the equipment running, I had sent all the pictures to the head of student affairs, the SGA President and Auxiliary Services. I got contacted by Aux Services saying that they would close down the sound booth and come out and clean it the following Wednesday. They told me to stay out of the rooms and to not use personal cleaning supplies to clean them. Once I got that word, I shut down everything I was working on, closed all the doors, locked them up, and left. I didn't come back until the week after. I followed up with Auxiliary Services and asked if the room had been cleaned."

"[However,] both the sound booth and the office had not been cleaned. I talked to them more and they contacted the pest control and maintenance vendor, [informing] me someone would be out that Friday to clean out both spaces. During the

Her research is based on a cave system in Italy called the Frasassi Caves. The cave system is still an active sulfidic cave, meaning it's forming new passages as we speak (well, as you read). This cave system also, in its lower levels, has biofilms and actively forming gypsum deposits. The Frasassi Caves are no new topic of interest though, the cave has been marked a show cave for years and has been researched for decades.

The cave system has a wide range of nitrogen isotope signatures. "These isotopes are interesting because in the active parts of the cave, you see super light nitrogen isotope signatures, like of the lightest we know of, but as you move up [to the older parts of the cave] in the system you begin finding heavier and heavier isotopes of nitrogen." Mackenzie is aiming to connect a few pieces of evidence by looking into where the nitrogen is originating from, nitrogen metabolisms, and finding if these isotopes are in the biofilms themselves or the gypsum they live on. This pattern of nitrogen signatures, if significant, can be applied to the search of new life on other planets. If NASA can find a similar array of isotopes on a planet, it could be an indication of life.

Mackenzie's research will be integral in the Earth moving towards a more sustainable future and the proverbial march to finding new life in other corners of our universe. Her research has let her travel the world to different caves to put together the bigger picture for her studies. She is leaving soon for another expedition to the Frasassi Caves in Italy.

- Alexandra Sartori

Caves, Extraterrestrial Life, and Mackenzie Best

Research is an exciting venture. It can be something indicative of your future and your career. For most STEM fields, research involves a lot of lab time. Like, a LOT of lab time. While lab work can be exciting, it can also get a little monotonous. But, there are fields of research that also involve a lot of out-of-lab time. There's even certain lines of research that will pay you to fly out to Italy to romp around in one the most famous show caves in the world. Who wouldn't pursue that?

Mackenzie Best, a PhD student at NMT, is doing just that. Currently working on her PhD in Geobiology, she is pursuing two different lines of research. Both of Mackenzie's lines of research involve caves, but more specifically all the little critters inside them.

Didn't think caves had life? You would be surprisingly wrong; caves that are formed through the process of dissolution via sulfuric acid have a propensity to form little organisms that love nothing more than to oxidize sulfur. These bacteria are lovingly referred to as "Sulfur Oxidizing Bacteria" or "SOB."

Mackenzie has found that SOBs, while also unabashedly cute, may be instrumental in cutting down the highly negative impact that comes with trying to recycle old electronics. When electronics outlive their purpose, they are often thrown away or dropped off at a recycling center, but there are metals within the electronics that can be harvested. The collection of this metal is often subsidized off to poor countries with fewer health regulations, where the metals can be melted for later use. This causes not only environmental damage due to the toxic smoke created but is also a massive health hazard to the individuals doing it.

Mackenzie found that there is a process that the SOBs can help with that can easily extract these metals with a fraction of the environmental and health impact. She is working to assess how well biofilms, a cluster of microorganisms, that contain these SOBs can perform bioleaching to solubilize these metals from their electronic hosts. Bioleaching is a mining process that uses microorganisms to extract valuable metals.

Mackenzie is also working on another line of research through NASA that is aiming to help identify life on other planets. "We want to figure out what kind of biosignatures can persist over time that we can then look for on other planets. It's a very astrobiological focus on caves." Studying for extraterrestrial life while on Earth can be a little complicated; it can be difficult to intuit what life will even be like on another planet.

weekend, given the past history of them not coming out to clean and [the fact] I had received no confirmation that it had been cleaned, I bought my own cleaning supplies and me and my dad came down to clean. We scoured it and stayed up to however late we needed, spraying everything, vacuuming every piece of mouse debris we could find, painting the graffiti. That Monday morning, I had an office to walk into. I addressed the senate about the issue that Tuesday."

If you read our previous issue, you will recall I included a segment in the SGA Rundown about this address. Although my very short summary does not do it justice, it was quite jarring hearing this for the first time. It was decided immediately afterwards that Tim was to be reimbursed for the money he spent on cleaning, and he received much praise for his actions.

But as I listened to this, I wanted to learn more. Why was the SAC in such a state to begin with? Tim said that he does not put blame on any one person or group of people, but he thinks the space was abused by those that "don't have too many plans." He said he "saw the space was inoperable and tried [his] best to remedy the situation." As for why rodents took a liking to the office and sound booth, Tim explained that several boxes of microwavable popcorn had been left out, providing ample food. "It took 4 big contractor bags to clean up all the food, contaminates, and [even] furniture." Tim also added that COVID made it hard to use the spaces in the SAC for "a year or more," making small errors such as leaving out some popcorn into big problems due to the lack of people being in the spaces.

As I spoke to Tim, I learned that he was resigning from his position. Surprisingly, he clarified that he was "not resigning due to the disarray of the office. The most difficult part of the office was dealing with maintenance; with people saying that they would come in and clean and then not doing it." Tim knew how to fix the space, who to contact, and how to do it, but it just wasn't happening, which caused him to take matters into his own hands. The real reason he was leaving was due to him securing a research position at the school. He expressed that it was something he was really interested in and happy to do, but it required time, forcing him to put the SATD position "on the back burner."

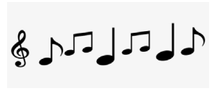
"My first goal with a lot of things, and dealing with this in particular, is leaving things better than you found them. As far as I am concerned, I think I accomplished that to a degree, and I am pleased with the progress. I am confident I am leaving it in a decent spot."

Presidential Chamber Music Series: I

In college, being 'cultured' and 'worldly' typically isn't a big concern or something that's very high on your to-do list. The activities that make a person more 'worldly' are expensive and time consuming activities like traveling, learning a new language, and going to an opera. When choosing between traveling out of your way for a classical music concert and saving a little extra cash for Little Caesars on Friday, I think most NMT students are going to choose the pizza. Fortunately, President Wells has made both possible here at NMT.

The Presidential Chamber Music Series (PCMS) is an NMT program that aims to bring live concerts and music to both the NMT student population and Socorro. The program has been a tradition for the last 30+ years, starting with a Adam Gonzalez, a faculty member in the NMT Music Program. Since then, it has been tradition for the President to sponsor the Series, and President Wells has joyously continued it.

The semester's first installment of the PCMS was held on September 30th. The event featured the New Mexico Bach Society. The concert was centered around some of the greatest arias, duets, choral settings, and keyboard music composed by Johann Sebastian Bach.

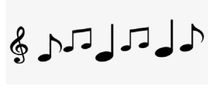


Johann Sebastain Bach was a German composer and musician from the late Baroque era. He is highly regarded centuries later for his robust compositions and musical fluency in many instruments. The NM Bach Society chose to highlight compositions from his Well-Tempered Clavier and other works, such as "Mein Wandel auf der Welt" ("My Walk in the World") and "Wie selig sind doch die" ("How Blessed are They").

Classical music can sometimes be seen as a little boring, and live music with operatic singing in German can, for some, not be an ideal Friday night. Despite this, classical music can have a large and positive benefit on your mental health. It has been linked to stress and anxiety

relief by researchers in neurology. It's thought the simple act of listening to classical pieces can slow your heart rate and lower cortisol levels.

Still not motivated to check out the PCMS? For all of the math lovers out there, music is math. Music is the composition and study of sound waves in a manner that is pleasing to the ear. Musicians aim to perfectly combine varying levels of sounds, tempo, rhythms, and pitches. There are even ways to create music off of "formulas" and there are mountains of scientific theories that delve into music and the way it is produced. It's thought that "science is the music of the intellect, and music is the science of the heart."



The PCMS aims to make classical music something that can be shared with the whole community. Whether you attend for your love of classical music, to reduce your stress, or to watch math in motion, the PCMS is presenting pieces of music that will inspire and bring you to another era of time. Watch the NMT activities calendar for the next installment of PCMS.

- Alexandra Sartori