

The Significance of African Drumming to a Students Future:

Comparing AMS to African Drumming

I want to first explain a bit about me and why I chose this topic. I am an Applied Mathematics and Statistics student here at Stony Brook University, I have been a calculus I and II tutor here for about three years, and I am a Music Minor. I was a part of both these classes, and therefore I have my own ideas and opinions on the culture of AMS and African drumming.

Nicole Beaudry discussed in her paper, "The Challenges of Human Relations in Ethnographic Enquiry," bias and making the "Other" familiar is what makes ethnography meaningful.¹

For this project, I interviewed six people, one professor and five students. Nicole, Leo, Michael, and Dylan are AMS majors; and Ruchi, Dylan, and Michael are involved in African Drumming. Similar to Park's "Asian American Youth in the EDM Festival Scene"², I used the open-ended and semi-structured interview method and analyzed what my interviewees said with Geertz's "Thick Description." Thick description signifies doing ethnographic research; writing, mapping, reading texts, interviewing; and elaborating on the meaning of this data.³ To elaborate on the idea of Radical Empiricism from "Music, Spirit Possession and the In-Between: Ethnomusicological Inquiry and the Challenge of Trance" Richard C. Jankowsky⁴, I tried to not bring my own biases into my interviews, letting my interviewees talk about their experiences openly, so that I may observe from an outside perspective. My age and personal relationship with

¹Gregory Barz, Timothy J. Cooley, and Nicole Beaudry, "The Challenges of Human Relations In Ethnographic Enquiry," in *Shadows in the Field: New Perspectives for Fieldwork in Ethnomusicology* (New York, NY: Oxford University Press, 2008), 224-245.

²Judy Park, "Searching for a Cultural Home: Asian American Youth in the EDM Festival Scene," *Dancecult* 7, no. 1 (2015): 15-34, doi:10.12801/1947-5403.2015.07.01.01.

³Clifford Geertz, "Thick Description," Clifford Geertz - Thick Description: Toward and Interpretive Theory of Culture, , accessed May 01, 2018, http://www.sociosite.net/topics/texts/Geertz_Thick_Description.php.

⁴Jankowsky, Richard C. "Music, Spirit Possession and the In-Between: Ethnomusicological Inquiry and the Challenge of Trance." *Ethnomusicology Forum* 16, no. 2 (2007): 185-208. doi:10.1080/17411910701554021.

my interviewees highly affected their answers. I transcribed the interviews because I had to take out highly personal information that some of my interviewees shared with me.

To begin, I asked the four AMS students and my AMS Professor why they pursued math. Leo decided to major in AMS because there are a lot of jobs in data and statistics. Michael, Dylan, and Nicole are major's in AMS because it seemed to be the best option. Fortunately, Michael and Nicole are passionate about the subject and enjoy learning it. Surprisingly, my AMS Professor, Dr. Hu, is in AMS because his parents chose it for him, based on the growing job market. It is well regarded that a major in AMS will land a student with a good job. According to US news⁵, Kiplinger⁶, and Business Insider⁷, engineering, finance, and mathematics related fields are among the highest paid jobs. This is one of the many reasons the AMS major is one of the most popular out of 68 total majors at Stony Brook University.⁸

However, when I asked the students if they would use their classes for their future, Leo and Michael both said they would not use this info for an entry level position. Nicole and Michael will use this information later because they are planning to go to grad school for mathematics. To quote Michael, "I think 20 years down the road, absolutely I think I'll be using the material that I'm learning right now. As an undergrad getting some entry-level job, probably not."⁹ Leo went more in depth on his troubles with AMS:

Saffron: What don't you like about this class?

5 Somers, Darian. "10 College Majors With the Highest Starting Salaries." U.S. News & World Report. Accessed May 01, 2018. <https://www.usnews.com/education/best-colleges/slideshows/10-college-majors-with-the-highest-starting-salaries?slide=10>.

6 Rapacon, Stacy. "10 Best College Majors for a Lucrative Career." Ww.kiplinger.com. December 21, 2017. Accessed May 01, 2018. <https://www.kiplinger.com/slideshow/college/T012-S001-best-college-majors-for-your-career-2017-2018/index.html>.

7 Michaels, Matthew. "The 50 Best College Majors for Finding the Highest-paying Jobs after Graduation." Business Insider. April 29, 2018. Accessed May 01, 2018. <http://www.businessinsider.com/best-college-majors-highest-paying-jobs-2018-4>.

8 Stony Brook Office of Communications. "Stony Brook Fast Facts." Fast Facts. Accessed May 01, 2018. <http://www.stonybrook.edu/about/facts-and-rankings/>.

9 Michael, recorded and transcribed interview, April 19, 2018.

Leo: I guess like, I guess it's the same thing for most classes. It's hard to assume how this would actually be used in a real life sense than like theoretical, given like, fixed situations. It seems that using data would be more easier than this.

Saffron: Yea. I get that sense too. And I feel like you have to get into the PhD or whatever to actually start solving real life problems.

Leo: I mean it's hard. They're assuming possibilities. I mean I doubt real cars arrive at exponential rates. Haha.

Saffron: Haha. That would be nice, right?

Leo: You need to take account of all the traffic and, I can see how it's going to be complicated. I think it's just better to get like a sample of 10,000 cars and make data samples and analyze that instead of making mathematical models.¹⁰

In this segment, Leo and I talk about the class we are in together, AMS342, and how every question has predetermined, unrealistic distributions, that do not follow real world scenarios.

So I asked, what is the point of getting an AMS degree unless you are going further with it? Why do jobs seek student in AMS if they won't even use what they learn in an entry-level job? According to Michael, Dylan, and Nicole, AMS teaches you "how to think." As an AMS student, I first heard this idea in class for AMS301, Survey of Finite Mathematical Structures. The Professor was Alan Tucker, who is a very highly regarded expert in the mathematics field. On the first day of class, he was telling this class of about 200 kids the reason why this is a requirement in the computer science and AMS majors. His reason: This class teaches you "how to think." This quote is famous to AMS majors, so what does this mean to each of them?

Michael was the first AMS student to bring this idea up, directly quoting Alan Tucker.

Saffron: What's your favorite thing about AMS?

¹⁰ Leo, recorded and transcribed interview, April 19, 2018.

Michael: In retrospect, how many different paths I could have gone down. One of the classes that I'm taking right now which is stochastics, which we're both in, I would say is one of the hardest courses I've taken in my entire life. Overall though, AMS is definitely not crazy hard, but still extremely engaging, so I think that would be one of my most favorite things. Also, money. If you have a degree in AMS you are extremely hire-able. I've heard this from myself, from professors, statistically from like Glassdoor and other sites. It's easy to fall into a very nice job with an AMS degree.

Saffron: Why, what is it about AMS?

Michael: Well like I said there are a lot of different tracks. So you have programmer analyst, statistician, operations research, computational biology, these are all the tracks that they recommend on the website I'm pretty sure. And all of them are extremely lucrative. ... But also Alan Tucker, like I said extremely great guy outside of asking him questions on his material, he said you are, by the time you graduate you will be considered quants. And quants isn't someone who's a statistician or who is a programmer or anything, you're going to be given a piece of paper that says, to the hiring world, hey I spent four years of my life dedicated to learning how to think about things analytically and creatively at the same time, and companies just want that.¹¹

To analyze this, start with the first answer. Although Michael seems to be very passionate for math, he also includes the point that AMS is a high-paying major. He goes into detail about why this is, and mentions Alan Tucker's famous quote of learning how to think. As a note, quants is short for quantitative analyst, a person who specializes in the application of mathematical and statistical methods – such as numerical or quantitative techniques – to

¹¹ Michael, recorded and transcribed interview, April 19, 2018.

financial and risk management problems.¹² Even if one does not go into a related job right out of college, the student has a great major that says they know “how to think.” Thinking, according to Michael, is knowing how to analytically and creatively think. To give definitions, analytical thinking is generally defined as being able to solve problems, and creative thinking is looking at problems from different perspectives.

Dylan also discussed the idea of thinking.

Saffron: To go back to, what are the lessons that you’re learning in AMS. So you said that you’re learning how to think, can you elaborate on that and what that means?

Dylan: It’s kind of a vague thing to say right, because I’ve been thinking my whole life. In every single class, there will be problem solving when it comes to AMS, that’s just a given. And aside from, here’s a certain question I want you to solve it, aside from that, the whole applied part of it, you’re solving problems. And there’s always more than one way to look at things. And some things are more intuitive for people and some things aren’t, so what could be an easy thing that makes sense to me, you guys might not get it the way I get it, let’s put it that way. But that’s what I mean by AMS classes teach students how to think. There’s more than one way to go about things and if something doesn’t make sense to you initially, exhaust all possibilities. Find the way that works for you. Because there will be a way that works for you. Another thing that AMS has taught me is just to work hard. ... ¹³

This is similar to Michael’s definition; solving problems and looking at problems from different perspectives, or analytical and creative thinking.

¹² "Quantitative Analyst." Wikipedia. May 04, 2018. Accessed May 04, 2018. https://en.wikipedia.org/wiki/Quantitative_analyst.

¹³ Dylan, recorded and transcribed interview, April 19, 2018.

However, I talked to Michael and Dylan about the thought process in African Drumming, and the results are similar. This discussion occurred just before going into the conversation on how AMS helps one learn how to think.

Saffron: So what are the lessons that you feel like you're learning in African drumming?

Dylan: Lessons?

Saffron Do you feel like you're learning anything?

Dylan: What I think about AMS, besides learning all those different things, I'm also learning how to think. I kind of feel that, in a similar vein, with this class. What AMS is to life as a whole, you could think differently, you think analytically, and you can break down problems, MUS335 is to the rest of music for me personally. Because I play mostly jazz, and there are a lot of things in this class that I just most definitely would not ever see, ever, these sort of rhythms in jazz. There are somethings that do overlap, but there are other things that I wouldn't, or I wouldn't necessary think of it as that. Because with music you can think a certain rhythm as many different things, if you have different subdivisions of notes, you can feel, you know whatever.

Michael: It's like when Faith will be like 'yea that's the white people way of thinking about it.' Like that's the 'European' way of thinking about it. Like oh that's a triplet, I guess.

Dylan when I would hear that the first time, I would think okay, (playing basic on the first open stroke, strong hand) one two three four, versus (now playing on the closed stroke, weak hand) one two three four. Or thinking of the bell in four, or even more

recently in eight she was showing us. It just gives me a larger vocabulary for thinking about music.¹⁴

What these two are talking about is looking at a problem with a different or new perspective.

Dylan says, “Because with music you can think a certain rhythm as many different things, if you have different subdivisions of notes, you can feel, you know whatever.” He is saying how one can look at a rhythm, or feel a rhythm, differently depending on what the subdivision is or where the accents are. Michael even compares this way of thinking to the world; the ‘European’ way of thinking. Michael is thinking about rhythms in a worldly and cultural sense. Dylan then discusses a real example of feeling the accent differently when doing a drum stroke called ‘basic.’ What these two are talking about is the exact definition of creative thinking: looking at problems from different perspectives. When I directly asked Dylan if he is he feels there is problem solving in African Drumming class similar to AMS, he says:

Not as readily. I feel like if I don’t get To Gbe Zo, for that specific song that we play, where we make the switch between one pattern and the next, some people seem to just be able to get it, it makes no sense to me. So I had to stop thinking about it as just going from one to another, to start thinking about it as maybe cut part of this off, and to not to that and to think about the part that changes as its own separate entity. Its own, separate, unique rhythm. In that, maybe its... There are problems that arise in this class for me quite often. But for this, I feel like it’s more muscle memory and it’s a different way of thinking. And if anything, I can, the whole teaching me how to think, AMS business, applies here also. Think about it differently, try to break it down, to the smallest part you can and try to build back up from there. ¹⁵

¹⁴ Dylan and Michael, recorded and transcribed interview, April 19, 2018.

¹⁵ Dylan, recorded and transcribed interview, April 19, 2018.

In this scenario, Dylan had a problem. He was not able to understand To Gbe Zo. To solve it, he had to apply a different perspective to it. He broke down the rhythm into different parts, then rearranged it in his mind. He solved his problem. This is the definition of analytical problem solving and creative thinking.

However, perhaps he solved his To Gbe Zo problem by using the thought process he gained in AMS. To give my thought as to why he did a method of problem solving unique to African Drumming, I have an anecdote of when Ruchi, a chemistry major, taught me Se Je Le.

It was at the beginning of the semester. I just joined the African Drumming advanced class, and I felt very behind. I was in the beginner's class just last semester, and skipped two semesters one is typically supposed to take before this advanced class. I asked Ruchi to help teach me so I may get caught up. She decided to teach me the support drumming to se je le. She played the whole piece for me. The first thing I noticed was that there were a lot of repeating rhythms, interrupted by other repeating rhythms. But there was not an obvious pattern. The rhythms interrupted each other at random. To be able to completely understand this, Ruchi broke the song down into sections, and even helped me more by naming the different sections 'Blue' and 'Red'. I saw it like a puzzle, I had to fit blue and red back together to play the whole piece. By the end of the half-hour, I was able to play Se Je Le slowly.

African drumming promotes analytical and creative problem solving to be able to even play more complicated adjobo pieces. But Africa Drumming does even more than AMS, it also teaches collaboration, communication, community, and cultural tolerance. These are the skills that are incredibly important to jobs. Forbes list of qualities that employers look for includes work well on a team, like to problem-solve, and have ambition, among other traits.¹⁶ UK Jobs list

¹⁶Ryan, Liz. "12 Qualities Employers Look For When They're Hiring." Forbes. March 03, 2016. Accessed April 29, 2018. <https://www.forbes.com/sites/lizryan/2016/03/02/12-qualities-employers-look-for-when-theyre-hiring/#>.

includes communication, teamwork, flexibility, and interpersonal skills.¹⁷ A Business Insider article on what Google looks for in employer's quotes, "Elsewhere in 'Work Rules,' Bock writes that 'by far the least important thing we screen for is whether someone actually knows anything about the job they are taking on.' The reason? People who become experts at solving certain problems in certain situations will only replicate those same reliable solutions in unexplored situations. To get to fresh thinking, you need a more general background." Google wants emergent leadership, creative thinking, and analytical thinking. Each of these articles talk about communication, teamwork, and analytical thinking. Michael Glick, a College of Engineering and Applied Science advisor, told me that the most important question an interviewer for any job position is asking is, "Am I willing to work with this person?" There is a difference between 'do I want to work with this person,' and 'could I work with this person.' When I asked Ruchi what is more important for a student's future, their major or African Drumming, she says:

But there's this growing push now a days for employers, where they want these really well-rounded candidates. They want people who can do creative and artistic things, because you need those skills. You can't just be able to solve equations, you need to be able to understand why you're doing that, what's the purpose, what is this mean, who was this for, what's the audience. And all these humanities and philosophy, all that stuff, you really need all of it. I did it theater project on connections between arts and science. I was really finding that there are so more similarities and that there are these arbitrary lines between subjects. ... It's hard. It's hard to balance this observational didactic way of thinking and observing the world, with this creative way of experiencing the world. It's

¹⁷"What Are Employers Looking For? Skills and Qualifications - Careers Advice." Jobs.ac.uk. Accessed April 29, 2018. <http://www.jobs.ac.uk/careers-advice/interview-tips/1337/what-are-employers-looking-for-skills-and-qualifications>.

sort of like one thing, like medicine will keep you living longer and keep you healthy and make you live, but you need a reason. So, you need both things. ¹⁸

African drumming promotes collaboration, communication and teamwork inherently through the music. There is a lead drummer, and the drummers and dancers have to listen and respond to the lead drum. Drummers also have to listen and respond to each other. If one is playing too loud, it may drown the other drums out. As Ruchi said, “That's what I said today, I told Michael he was playing too loud on the kagan, because I couldn't hear the other parts. And it wasn't about him, it was about everybody. And he was super chill about that, and he got it, and those are skills I find a lot of people really lack.”¹⁹ In *adjobo*, there is a poem that goes with every piece. The poem is spoken by the lead drummer, then spoken on the drum. As drummers and dancers, one learns to communicate in drumming as well as in English. As for cultural tolerance, it is incredibly important to be aware of the beauty of Africa. Learning about this though African Drumming is incredibly unique compared to most classroom settings, as discussed in Gaunt's “‘The Two O’Clock Vibe’: Embodying the Jam of Musical Blackness In and Out of Its Everyday Context.”²⁰

Overall, it is undeniable that communication and teamwork is incredibly important. However, AMS is not only completely independent, but actually promotes independence. The grading system for the AMS highlights the independent and competitive nature of this major. For typical AMS classes, the average is a B, and the standard deviations around the average determine the other grades. For example, in AMS 311, Probability, I got a 40/60 on the first test. The average was a 50/60, therefore I got a B-. The second midterm, I got a 40/60 again, but the

¹⁸ Ruchi, recorded and transcribed interview, April 19, 2018.

¹⁹ Ruchi, recorded and transcribed interview, April 19, 2018.

²⁰ Kyra D. Gaunt, “‘The Two O’Clock Vibe’: Embodying the Jam of Musical Blackness In and Out of Its Everyday Context,” *The Musical Quarterly* 86, no. 3 (2002): 372-397, doi:10.1093/mq/86.3.372.

average was a 30/60, so I got an A-. Your individual grade is determined by the average. This can cause a lot of tension. There is constant comparison to others, and it does not matter how hard you are trying unless you have the time and intelligence to study all the material well enough. This can cause actual psychological strain on someone. Constantly comparing your worth, importance, and intelligence to others, who have a completely different life than you, is unhealthy. Being in a class of 200 or 100 students who you do not know, and who you are secretly competing with, and your grade is determined by how well they do, is ultimately dysfunctional.

However, there is a clear idea of when your hard work paid off, and if you actually understand something, and if you're good at this subject. It feels really good when you finally get that position you wanted, or you did well in an audition, or you finally finished a problem. It's a high; makes you feel really accomplished and proud. And that feeling is powerful. My first math class at stony brook was an advanced accelerated course on Calculus I and II. My professor that that class said something that has stuck with me (paraphrased): "Math is a drug. You get addicted to it. You encounter something difficult and you struggle with it and don't understand it. You could get it for a little bit, then lose it the next day. But if you think about it long enough, you finally get it and it sticks. And it feels so good. It's a high. And the more difficult the concepts or proofs, the more powerful the feeling you get."²¹

Mathematics is highly independent; even Professor Hu's research is independent.

Saffron: So how many people do you have typically researching one topic. Like how many people are on a team? Is there a team?

Prof. Hu: Now I have three students. Previously I had five. Two are graduating, in May actually. They're doing research in different areas. Under the umbrella of operations

²¹ Professor Dror Varolin

research, there are many different specific topics, each one of them working on specific topic. Otherwise they would be having trouble writing their thesis. Everybody working on the same topic how you gonna, I mean allocate the contribution for all of them right. So basically, each of them working on different topic.

Saffron: So, it's independent basically?

Prof. Hu: They connect to each other. The basic knowledge all the same but they work on specific topic. One student is working on pricing problem, a financial engineering pricing problem, right. You have a product and you have to place an appropriate price for the product in order to achieve some sort of equilibrium in the market something like that. And other students are doing, say, methodology, say, optimization algorithms. They are doing different things. ²²

Overall, African drumming is collaborative and communicative, whereas AMS is highly competitive and independent. The sound recording of both classes further illustrate this idea. I learned about the importance of sound recording in Lane and Carlyle's, "In The Field: The Art of Field Recording." In the first chapter, Andrea Polli discusses two main attractions to sound recordings. First, "there is the broadly 'representational' aspect of field-recording practice that offers unique insights into the world the no other documentary medium is able to deliver" and secondly, "there are the sonorous qualities that are encapsulated in the field-recordings; the very sounds, in all their movement and their complexity."²³ I recorded almost every single AMS lecture and African Drumming class, and decided on a select few moments to feature. I did not choose moments that were free of mistakes, or were the most perfect performance that we played. I chose recordings that represented the classes as best as possible. There are clips

²² Professor Jiaqiao Hu, recorded and transcribed interview, April 19, 2018.

²³ Lane, Cathy, and Angus Carlyle. "Andrea Polli." In *In the Field: The Art of Field Recording*, 9-24. Uniformbooks, 2011.

representing the communication between the lead singer and the class, there are clips of the sound of friendship in both classes, and there are clips of a song spoken with a drum. At the end, I added a clip of Professor Hu telling the students of his AMS342 class that everyone did terribly on the midterm. We all laughed together, and I felt a connection with my whole class that I have never felt outside of that moment. As an attempt to make the sound recording a unique experience to the listener, I will not go into depth to explain it. Sound recordings are able to stand alone on their own as ethnographic studies, as discussed in Feld's and Brenneis's "Doing Anthropology in Sound."²⁴

Not only does African drumming teach communication and collaboration, it is meditative and stress-relieving, an important quality for students.

Dylan: To go back to what Michael was saying before, that it made you feel good to come here, there is a certain meditative aspect to this class. And that's undeniable. In so far as when you meditate, there are obviously a bunch of different types of meditation, but sometimes you think about nothing or focus on one thing. This is you focusing one thing. You are not allowed to think about anything else but this or you just stop playing at that point.

Michael: But then sometimes if you're in the fucking zone and you're just kind of staring off you aren't thinking about anything.

Dylan: If you're playing a timekeeper part like you're playing bell or axatse, and you're in it and you're in the fucking pocket, you are not thinking about anything. And it sounds great, but you don't think about it.

²⁴Feld, Steven, and Donald Brenneis. "Doing Anthropology in Sound." *American Ethnologist* 31, no. 4 (2004): 461-74. doi:10.1525/ae.2004.31.4.461.

Michael: I would say probably 70% of the time that I'm playing that I'm playing perfectly, I'm not thinking about it. 30% of the time in acknowledging it, like oh my God I'm so happy to be in this moment.

Dylan: In contrast, if I'm playing a gig and I'm playing bass, if I don't think about it, I am dragging, or I'm rushing, or I'm two measures ahead of everybody else or something is wrong.²⁵

Ruchi also mentioned the meditative nature of this class:

Where in this competitive college setting, were playing this dice game of life with your just luck of how much money you happen to be born with and stuff and you're in this place where you're actually doing something that people really care about. And it's not to get somewhere, it's not to get to the next stage, it's not to get into med school, you're doing this music thing, doing it for the moment. So, it's very mindful I think.²⁶

I can personally testify for this mindset. Every Thursday, I would wake up happy because I knew that later that day, I would go to African drumming. Struggling through my AMS class has really stressed me out, on top of trying to find jobs and some kind of future for myself. African drumming was a class that I went to for the pure enjoyment. I was not stressed out or worried about my grade ever, I was always in the moment. African drumming was an incredibly unique class, and I have the Professor, Faith Conant, to thank for that.

AMS is worshipped by jobs and students as a hire-able major because it teaches students how to think. African Drumming can do the same, while also promoting cultural tolerance, communication, group work, and mental health, while AMS promotes independence and competition. I believe every class gives you some lesson outside of what is taught in class.

²⁵ Dylan and Michael, recorded and transcribed interview, April 19, 2018.

²⁶ Ruchi, recorded and transcribed interview, April 19, 2018.

Although some classes seemingly have nothing to do one's future, skills are transferable. What one learns in a class is not enclosed within that class. African drumming may not be related to AMS in course material, but it does have more transferable skills than AMS has. If worded correctly, African drumming can substantially increase a student's likelihood of getting a job. All in all, I am very grateful to have found and played in African Drumming. I am incredibly thankful to Faith Conant for teaching us the amazing music of the Ewe people, and for creating an open atmosphere where everyone is accepted.

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