Introduction

Before beginning I would like to note that the handout you received either physically or through the QR code includes a timeline and a map, so you have context to any dates and locations that I reference throughout this presentation! Now,

(Slide 2) Imagine, just for a moment, you're walking through the streets of ancient Thebes (Now named Luxor). Egypt's once capital city dominated the landscape, sprawling along the Nile River, and in 1500 BCE it was believed to be the largest city in the world for 600 years. Following the road carved through the center of the city would bring you to the Luxor Temple (Slide 3). If you were to walk along this road thirty-five hundered years ago, you would've been overwhelmed by the bustle of merchants, beggars, parades of guards, and most importantly music. The ancient Egyptians of not only Thebes, but the rest of the Nile's settlements valued music so much that it would be difficult to live a life avoiding performance in ancient Egypt. (Slide 4) This is the Luxor Temple today. Although it has all but weathered away, if you walked the streets of Luxor you would still hear music in the same places, even after more than 4 millennia.

In the discussion of ancient musical arts, little homage is paid to the achievements of the ancient Egyptians. This is unfortunate, but not without merit,

as it seems the only form of notation the Egyptians utilized was cheironomy (slide 5), or musical notation through physicalizations. Think of ancient instrumental solfege, with specific hand symbols corresponding to certain harmonic functions, such as tonic or dominant. While our knowledge of ancient Egyptian musical systems is incredibly limited, what we lack in harmonic knowledge is made up for in depictions and surviving instruments from throughout ancient Egypt's history. If there was one thing that ancient Egyptians excelled at, it was preservation, as to this day we've recovered a remarkable number of instruments, especially given how long ago they were created. We owe a lot to their preservation, because without these artifacts we would have nowhere near the knowledge of ancient Egyptian music that we have today. This research seeks to take the aforementioned preserved instruments and contextualize their forms, offering insight into how these instruments evolved into their modern counterparts. Along with this, I'll also be discussing how music and these pipes can help to preserve culture and tradition.

Definition and Investigation of Double-Pipes

First, let's figure out what instruments we'll be looking at. Ancient Egyptians knew about many different forms of instruments, and we now categorize these into three groups: Wind, string, and percussion instruments. This research is only concerned with the wind instruments of ancient egypt, and particularly, double-pipes. Double pipes are woodwinds played in pairs by a single musician, and there are three main forms of double-pipes: the double-flute, double-clarinet, and double-oboe, each categorized according to their mouthpiece. This presentaiton isn't necessarily concerned with the double-flute (sorry floutists), but that isn't to say the single flute was not incredibly important to Egyptian culture. This research also barely touches on the double-oboe, but I'll still adress both instruments for the sake of context.

Another thing to note, is that the names I'll be referring to these instruments by are based off of our modern naming conventions. (Slide 6) The words clarinet, flute, and oboe are not of Egyptian origin, and they were originally referred to under the blanket term "mat." Double-pipes were referred to as "mam," and flutes were sometimes referred to as "sebi," derived from the Egyptian word for the tibia. But, for ease of explanation, all these instruments will be referred to by their modern names from here-on out.

The reason this research doesn't delve into the double flute is because there doesn't seem to be a modern equivalent, and existence of the instrument itself is under speculation. This is because the two embouchre holes could have possibly fit reed mouthpieces instead of being blown across. The double-oboe does have a modern equivalent called the Maqruna [makə'run] (Slide 6), which both use a

double reeded mouthpiece. But, for the sake of time and relevancy the double-oboe and the Maqruna [makə'run \Box] will not be covered in this presentation, (mainly because of their non-Egyptian origins), which leaves the double-clarinet as the star of the show.

(Slide 7) This is the Egyptian double-clarinet, which is what we're mostly interested in today. It's called a clarinet because the mouthpiece of each pipe uses a single reed. Egyptian clarinets were almost exclusively played in pairs, and the finger-holes of the two tubes are placed *almost* symmetrically with very small differences, which produces a scale which isn't perfectly in tune with itself. The double-clarinet came in two variations, sometimes being played apart, facing diagonally, but more often the pipes were secured parallel to each other with twine.

The sound of the ancient double-clarinet would have been penetrating and shrill, and in any group it would've stuck out like a sore thumb. In recovered double-clarinet cases there was often a kind of putty, used to plug specific holes in the instrument to either shift the key or to turn one of the pipes into a "hole-less" drone pipe. Don't forget the term drone pipe, it'll be very important later.

Some believe that the Egyptians invented the earliest form of clarinet, with the earliest depictions dating back to 23-hundred BCE. This theory is further supported by evidence of this instrument missing in Mesopotamia, which in many ways passed down its instruments and traditions to Egypt. It's also interesting to

note that there have been double-clarinets found practically of the same shape as their modern counterpart dating from as far back as 100 BCE, meaning the modern shape has been standard for about 21-hundred years.

Modern Versions of These Instruments

The Argoul (slide 8) is one of the modern equivalents of the ancient Double-Clarinet, and they're believed to be relatives because they both have single-reeded pipes tied parallel to each other. The main difference between the two is that to create a drone on the double-clarinet, you would need to fill some of the holes with the putty mentioned earlier, whereas the Argoul had one of its pipes fashioned with no holes. This instrument comes with extensions, with three being standard being able to be configured in any combination.

Another modern double-pipe is the Zummara. (Slide 9) The Zummara and the Arghul are incredibly similar in structure, and from a distance it would be difficult to distinguish an Arghoul without elongations from a Zummara. This instrument appears to be a much more direct descendant of the double-clarinet than the Arghoul. The Zummara also uses two single reeds, just like the Arghoul.

Defining and Distiguishing Tradition and Culture

Now, moving on from instruments; If you hate musicology then I have really good news for you: (Slide 10) and that is that it's anthropology time! Now that you're just about an expert on Egyptian double-pipes its time to learn about tradition and culture. We all should have an idea of what tradition and culture are, but I'd like to define and go a step further. Tradition is the transmission of customs or beliefs from generation to generation. The ideal understanding of tradition, as stated by Yaacov Yadgar, is based in rejecting the idea that the past is inflexible, and instead believing that the ideas of the past should be interpreted and reinterpreted as those ideas are being applied. Essentially, tradition is not steadfast, it never has been and never will be. Yadgar also outlines what he believes to be the three largest influencing factors of tradition: (Slide 11) The Individual, Socialization, and Institutional/Governmental Powers.

The Individual can change tradition by one's own approach in choosing whether or not to maintain, change, or abandon their personal cusotms. As for socialization, this is the preexisting process by which someone is taught how to think or act according to the standards of the social zeitgeist. Institutional and Governmental powers, mainly (but not limited to) religion and government have long influenced the practice, upkeep, and adjustment of traditions. It's important, before we continue, to keep in mind that traditions are not unchanging; remember that tradition is a dynamic process of formation and reformation, and understanding tradition requires the knowledge of its close relation with history and culture.

On the topic of culture, (Slide 12) anthropologist George F. MacDonald defined culture as "a common consensus of communication that a given people have in common: particularly their shared experiences, perceptions, values, and consciousness." Culture and Tradition are very closely intertwined, so much so that an argument could be made that culture is the tradition of the larger collective. The preservation of tradition and culture are symbiotic, with the upholding of each giving both benefit and detriment to the other.

Traditions Upheld Through Music

Now you might be asking yourself, "What do ancient egyptian pipes have to do with all this tradition nonsense?" Well, many Egyptian musical traditions have stood the test of time with little, and sometimes no modification, and a great tool to highlight this is our old friend, The Arghul. (Slide 13)

This instrument serves as a prominent example of upholding musical traditions. In the context of socialization, ancient accounts describe most physical labor being accompanied by some sort of musical support; sometimes through

percussive instruments, and sometimes through melodic instruments. For example, during the construction of the pyramids of Giza, the labor would always be accompanied by some sort of percussive rhythm; as this was most likely used to keep everyone's movements synchronized and efficient. As for the Arghoul, it's been observed both in ancient times and recently that the Arghul and its ancient variations have been played by shepherds and nile boatmen to accompany their work.

Now, this isn't to say that all social traditions surrounding the double-pipes were unchanging. Way back in the old kingdom, the only double-pipe players were men, and this continued through the middle kingdom, all the way until the 18th dynasty when musicians of all genders were allowed to play this instrument. But, it doesn't end there, as throughout Egypt's later history, periods of time existed where women were scrutinized for making music in certain social situations. Its important to note that this later discrimination could be attributed to both socialization and periods of what we from a western perspective would consider institutionalized sexism through Islam.

On the topic of institutionalized tradition, invading governments and foreign institutes that declared power over Egypt were for the most part remarkably accepting of longstanding Egyptian traditions. This includes the greeks, romans,

hyksos, persians, assyrians, and macedonians, and no significant change to Egytpian tradition was seen until the end of the Roman Epoch (epic).

Now shifting focus away from governments and institutions, the individual has just as important a role in affecting musical traditions. As an example of this, often pipe players will come from a long lineage of pipe players, and this is because Egyptian's in all professions of all eras commonly took after the careers of their fathers. Now thiats not to say that this job inheritance happened every single time; it wouldn't be a real tradition if there wasn't deviation, but in most cases careers end up being passed down. Especially the career of musician. It's also important to note that individual changes are less observable than social and institutional simply because they happen with the individual. It's more difficult to quantify changes that happen through a singular effort and not on a widespread scale.

After examining musical traditions through yadgar's principles, I hope that it can shed light on just how influential music is in preserving tradition. I feel that these principles can also be transferred to preserving culture, because as I stated earlier, culture can serve as the tradition of the whole, and a culture as rich as that of Egypt has made sure to stand the test of time.

Conclusion

I don't know if any of you feel the same, but I'm amazed at the fact that the instruments used by ancient Egyptians almost 5000 years ago still exist in strikingly similar forms. I mean, these instruments have remained being played since when the pyramids were first constructed, while the world went from Bronze to Iron and then to Steel, from the age where the most important innovation was agriculture to our age of information, and probably being played while I'm speaking to you this very moment. If the thought of 5000 year old traditions seems like something that happens frequently, I'd ask you to really think about practices you see do today that were done 5000 years ago (heres a hint: there aren't a whole bunch.)

That's why I believe that this research is important, talking about these age-old concepts is one of the most important ways to keep them alive. I hope that talking about how traditions can be changed or upheld can be transferable to your own real experiences and traditions. It's also important to recognize the culture of the whole is important in the same aspect; popularity and longevity aren't decided by just one, but by the whole. Looking at how these double-pipes have changed over ages serves as a valuable tool for looking at music's relation to preserving tradition and culture. Of course, this could also be accomplished without making any reference at all to double-pipes, but I feel like that would be unfair to the legacy of the these instruments and their 167 generations of musicians.

(Slide 14) Before I end I would like to leave you with some readings if you're interested to dive deeper into ancient Egyptian music, as there's SO much I wasn't able to cover. "Music of the Most Ancient Nations" by Engel is probably the most comprehensive source, and along with "Music and Musicians" by Emerit, offer a largely wholistic view of Egyptian music. If you're more interested in instrumental and social aspects throughout Egypt's history I would urge you to look into "The Music of Ancient Egypt" by Pulver. If your plight is to unravel the ancient systems of tonality used along the Nile, I would recommend you read "Music-Historical Egyptomania" by Rehding, as he delves into most every theory ever put forth pertaining to Egyptian music theory. And finally, if music isn't your ballpark, "The Spirit of Ancient Egypt" by Ana Ruiz is one of the most comprehensive sources I could find on life in general in ancient Egypt, and Yaakov Yadgar's "Tradition" is an incredibly interesting read for those of you interested in more anthropology.

Now that I've taken up nearly 20 minutes you could have spent doing anything else, I'll leave you with a quote from Jeffery Pulver, "Everything points to the present-day system of Western music having originated in the land of the Pharaohs 5,000 to 6,000 years ago." We owe our modern music to the brilliance of

the ancient Egyptians, and examining some of the ways they accomplished this is the least we can do to honor them. Thank you.

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