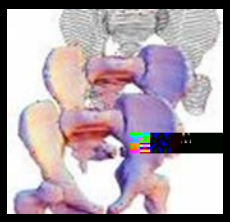
Friday and Saturday
November 14-15
Sam Houston State University

Primate Behavior
Socioecology

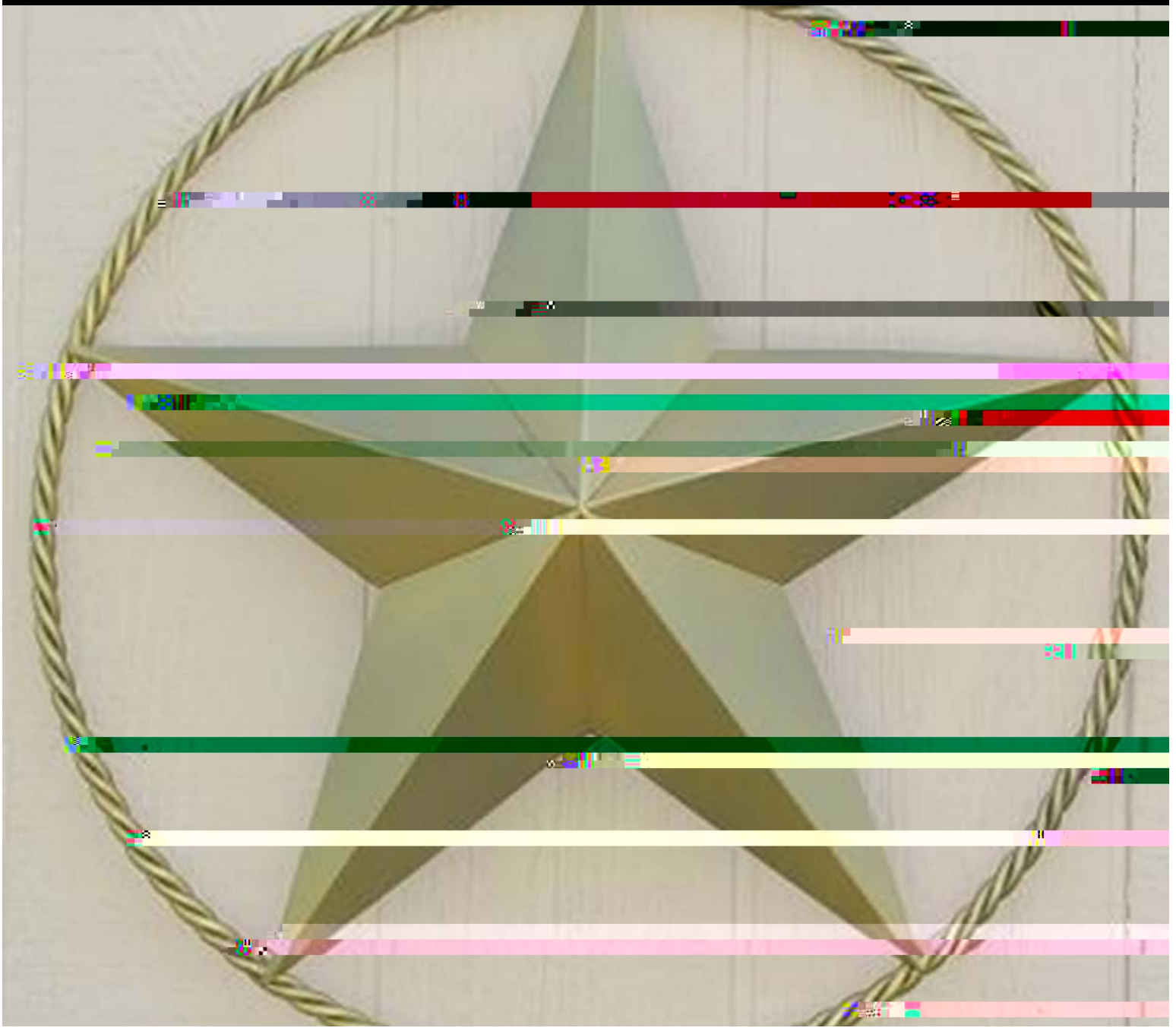


Forensics
Human Variation

Paleoanthropology
Paleoprimatology

TABA Texas Association of Biological Anthropologists

Annual Meeting 2014



SCHEDULE OF EVENTS

Friday, November 14, 2014

1:00-5:00 STAFS Open House and Tours

5:00-6:00 Registration
Lee Drain Atrium, Second Floor

6:00-7:00

3:30-4:30	Poster Presentations Lee Drain Building, First Floor
4:30-5:30	Business Meeting and Election of Officers

STAFS OPEN HOUSE AND TOURS

Friday, November 14, 2014

1:00-5:00 PM

The Southeast Texas Applied Forensic Science (STAFS) Facility is a willed-body donor facility, recognized by the Anatomical Board of Texas, Chapter 692, Texas Anatomical Gift Act, accepting human body donations for the purposes of scientific research. The knowledge developed here can be used by professionals in the field to help solve criminal cas

2. A description of kissing behaviors in three species of captive owl monkey (Azara's night monkey, *Aotus azarae*; Nancy Ma's night monkey, *Aotus nancymaae*; and Spix's night monkey, *Aotus vociferans*). ASHLEY M. CARTER[1], KERRIE LEWIS GRAHAM[1], AND LAWRENCE E. WILLIAMS[2]. [1]Department of Anthropology, Texas State University, [2]

Huntsville, TX, [2]Alkek Center for Metagenomics and Microbiome Research, Department of Molecular Virology and Microbiology, Baylor College of Medicine, Houston, TX.

4:306--

ABSTRACTS (In order of presentation)

SESSION I

Recent Hominin Fossil Discoveries from South Africa

DARRYL J. DE RUITER[1,2]. [1]Department of Anthropology, Texas A&M University, College Station, TX,

attempted to identify these fossils to their lowest taxonomic level to better inform on the regional paleoenvironment. Comparison of the fossil material with recently trapped modern specimens from the Koanaka area and specimens from the Transvaal Museum in Pretoria call into question the reliability of diagnosing rodents based on dentition alone, in particular for many murine taxa. Of further concern is genetic work on the modern Koanaka rodents which finds genetically distinct cryptic taxa of murines that are morphologically indistinguishable. It has been standard practice in the region for several decades to diagnose similar rodent fossils to the level of genus, and frequently to species, using only dental characters. A detailed comparison of qualitative characters and quantitative analyses of large sample sizes, however, have failed to produce reliable apomorphies for identifying most taxa below subfamily. Variation in isotopes and an over generalization of environmental tolerances also plague

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Study of Two Faces: Preliminary study on the use of a 3D Scanner in determining asymmetry in the craniofacial bones.

KAITLIN DILLIARD[1], DAVID HOFFPAUIR[2], and JOAN A. BYTHEWAY[1]. [1]College of Criminal Justice, [2]Office of Research and Sponsored Programs, Sam Houston State University, Huntsville, TX.

Studies have shown that most individual's faces are asymmetrical. Computer technology can be used to visually prove face asymmetry. But does asymmetry exhibit itself in facial soft tissue, craniofacial bones, or both? Betty Pat Gatliff, a Forensic Facial Reconstructionist, discovered that there was asymmetry present in the craniofacial bones when she tried to complete a facial reconstruction by reconstructing one side and then creating a mirror image of the other. However, this was simple based on observation of gross morphology. Cadaver studies have been conducted on the asymmetry of facial tissues by measuring and comparing the tissue depths of the right and left sides of the face. These studies surmised that there was little significance in the tissue depth differences between the right and left side. Most studies have focused on soft tissue with limited studies on asymmetry in the craniofacial bones using quantitative methods, such as linear measurements.

This preliminary study focuses on the measurable difference between the left and right craniofacial bones of three main ancestral groups by utilizing a 3D scanner. Accuracy of craniofacial measurements were compared between a scanned skull using the Artec Eva™ 3D scanner and software and direct traditional linear measurements. Results show that the average error was 1.2mm on the first skull and less than 1mm a second skull. In addition, five skulls from various ancestries were scanned and measured to compare average error and to determine the degree of asymmetry of the craniofacial skeleton. Results showed that while there are measurable differences between the right and left sides, there are few of significance; most are within the 2mm range for linear measurements. The results also show that there are shared measurements that have a higher level of significance than the rest between scanned skulls. More research is needed to verify that the differences between the left and right craniofacial measurements, that are significant, are consistent between or within the ancestral groups and not due to individual characteristics.

Cadaver Decomposition Island Interval in Southeast Texas

TONYA PARNELL[1], KATHERINE TANNER[2], and JOAN BYTHEWAY[2].

Vertebral lesions from a Geriatric sample exhumed from the St. Nicholas Cemetery, Limassol, Cyprus

CAITLIN E. MAYER[1], ROBERT PAINE[1] and XENIA-PAULA KYRIAKOU[2]. [1]Department of Sociology, Anthropology, and Social Work, Texas Tech University, Lubbock, TX, [2]Anthropological Curator, St. Nicholas Cemetery Cyprus

During the 2014 Texas Tech Field School season in Nicosia, Cyprus a geriatric burial sample was analyzed for the presence of skeletal lesions. The sample is comprised of 30 male and female individuals with ages ranging from 60-100 years old. The burials were exhumed from therial

specific to the hip and shoulder joints in Cypriot individuals from this community. Thirty geriatric skeletal remains are analyzed for the common lesions associated with DJD. Each joint is treated as an individual unit. Lesions were scored to type (eburnation, osteophytes, and porosity) and to the degree of severity. Since the sample is small, analysis of data is completed using the Fisher's exact test. We find that degenerative joint disease of the hip and shoulder is not sex specific for this sample and that old age is a critical factor in the presence of severe lesions.

SESSION IV

Degenerative Joint Disease in the Hands and Feet Relative to Sex and Body Mass: A Study of Skeletons from St. Nicholas Cemetery in Limassol, Cyprus.

LISA C. HIGHSMITH

were additional fusions observed at the sacroiliac joint, at the left femoral head, and acetabulum. Severe Lanois deformity was observed with no corresponding fusion or arthritis mutilans of the hands. Lanois deformity is characterized by a fusion of foot bones in a claw-like orientation. The overall lesion pattern of this individual suggests that reactive arthropathy is the likely origin of these lesions and not the more common HLA-B27 related seronegative spondyloarthropathies such as ankylosing spondylitis, psoriatic arthropathy, or enteropathic arthropathy. Although an individual with HLA-B27 might live unaffected and void of joint lesions, reacti.005 12(t)6(h)-4(e)-1(lik)6(e6[t)-)10(ts)873 Tw -10.35 -1.22 Td[in)-4
ex T70m[inle)-1( )10df such a severe case of reactive ttsrthropathy ex 8(e)3(m)14(pl)4(i)14(fi)4(e)3(s)6( )10(ho

by universities is becoming common place. While the study of exhumed burials from the St. Nicholas cemetery of Limassol, Cyprus was undertaken by the 2014 field school offered by Texas Tech, a number of skeletal lesions and defects were identified. Over thirty geriatric Cypriot remains were analyzed during the 5 week period. The purpose of this presentation is to report on our findings and to share with the audience the overall experience of working in Cyprus. A number of reports by students have been given. Besides an over view of the collection's state of health, I will also discuss the working and living conditions while Cyprus. In general, we can say that the presence of skeletal lesions for most health

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important negative impacts on plant populations, and may lead to drastic changes to the structure of tree communities in Madagascar's rainforests.

2. A description of kissing behaviors in three species of captive owl monkey (Azara's night monkey, *Aotus azarae*; Nancy Ma's night monkey, *Aotus nancymaae*; and Spix's night monkey, *Aotus vociferans*).

ASHLEY M. CARTER[1], KERRIE LEWIS GRAHAM[1], AND LAWRENCE E. WILLIAMS[2].
[1]

2012). Cranial capacity has been measured in three ways; linear measurements, radiological methods, and packing methods. The mustard seeds technique is one packing method that has been used in multiple other studies (Ramteerthakar 2013); in this

change in a relatively predictable pattern over time relative to temperature and specific ecological scenario. As a cadaver decomposes, it passes through several major stages of tissue change leading from wet decomposition (fresh, bloat) to dry decomposition (decay, mummification, and/or skeletonization). Early stages of decomposition are wet and marked by discoloration of the flesh and the onset and cessation of bacterially-induced bloat. Intrinsic bacteria begin to digest the intestines from the inside out, eventually digesting away the surrounding tissues. During putrefaction, bacteria undergo anaerobic respiration and produce gases as by-products, the buildup of which creates pressure, inflating the cadaver, and eventually forcing fluids out (purge). In the trunk, purge is associated with an opening of the abdominal cavity to the environment. While bacteria are credited as a driving force of decomposition; relatively little is known about bacterial succession during decomposition. Understanding the bacterial basis of decomposition is crucial to understanding decomposition as a whole and may help explain the variation of decomposition seen between cadavers. To investigate community structure of the skin, human cadavers were placed outdoors to decompose under natural conditions at the Southeast Texas Applied Forensic Science (STAFS) facility (a willed body facility) at the Center for Biological Field Studies (CBSF), Sam Houston State University, Huntsville, Texas. The skin of six cadavers was sampled by externally swabbing the right cheek, right bicep, and torso through the stages of decomposition. To assess alpha and beta diversity, sample processing, 16S rRNA gene amplification, and Illumina sequencing were performed following protocols benchmarked as part of the Human Microbiome Project. 16s data were processed and analyzed using QIIME version 1.7.0. Samples were grouped according to body site, cadaver of origin, and accumulated degree hours. Initial results suggest different microbial communities before and after purge. Ultimately, bacterial data such as these can be refined to develop a model of microbial succession that can be used to estimate the postmortem interval, or the time since death.

7. A Preliminary Study of Shifting Bacterial Communities of the Face during Human Cadaver Decomposition in Southeast Texas

LAUREN R. SMITH[1], DANIEL P. HAARMANN[1], JOSEPH F. PETROSINO[2], AARON M. LYNNE[1], and SIBYL R. BUCHELI[1]. [1]Department of Biological Sciences, Sam Houston State University, Huntsville, TX, [2]Alkek Center for Metagenomics and Microbiome Research, Department of Molecular Virology and Microbiology, Baylor College of Medicine, Houston, TX.

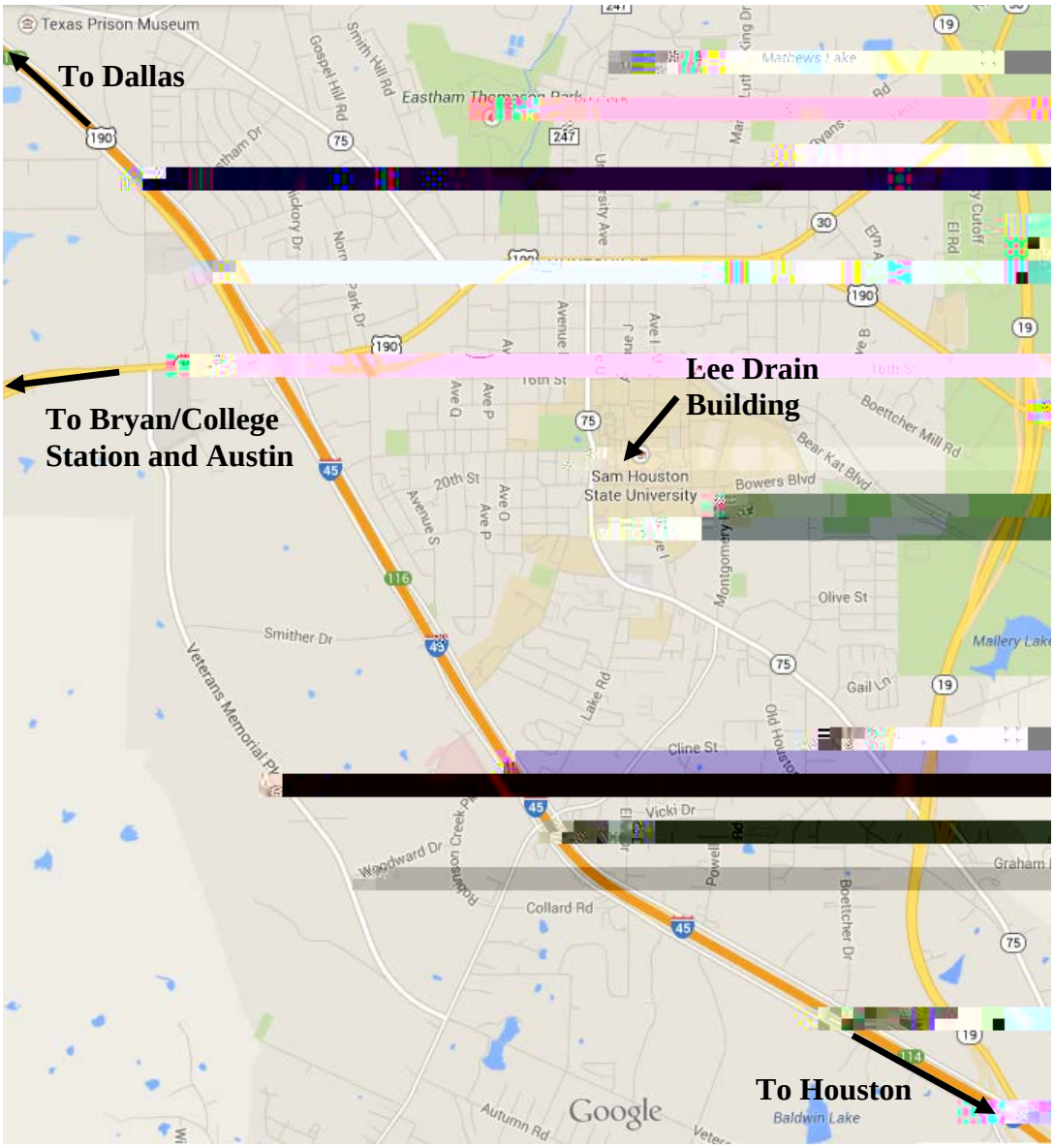
The Human Microbiome Project brought attention to the community of organisms that live and thrive on and in the bodies of humans. While this microbiome is important to understand in living humans, it is just as important to understand once human life has c

forensic research and holds the potential of providing a collaborative estimate of the post mortem interval. Preliminary studies have shown a shift in the communities across the varying stages of decomposition. One aspect left to be studied is whether samples that are taken vary temporally or spatially on a cadaver. In this preliminary study of the i

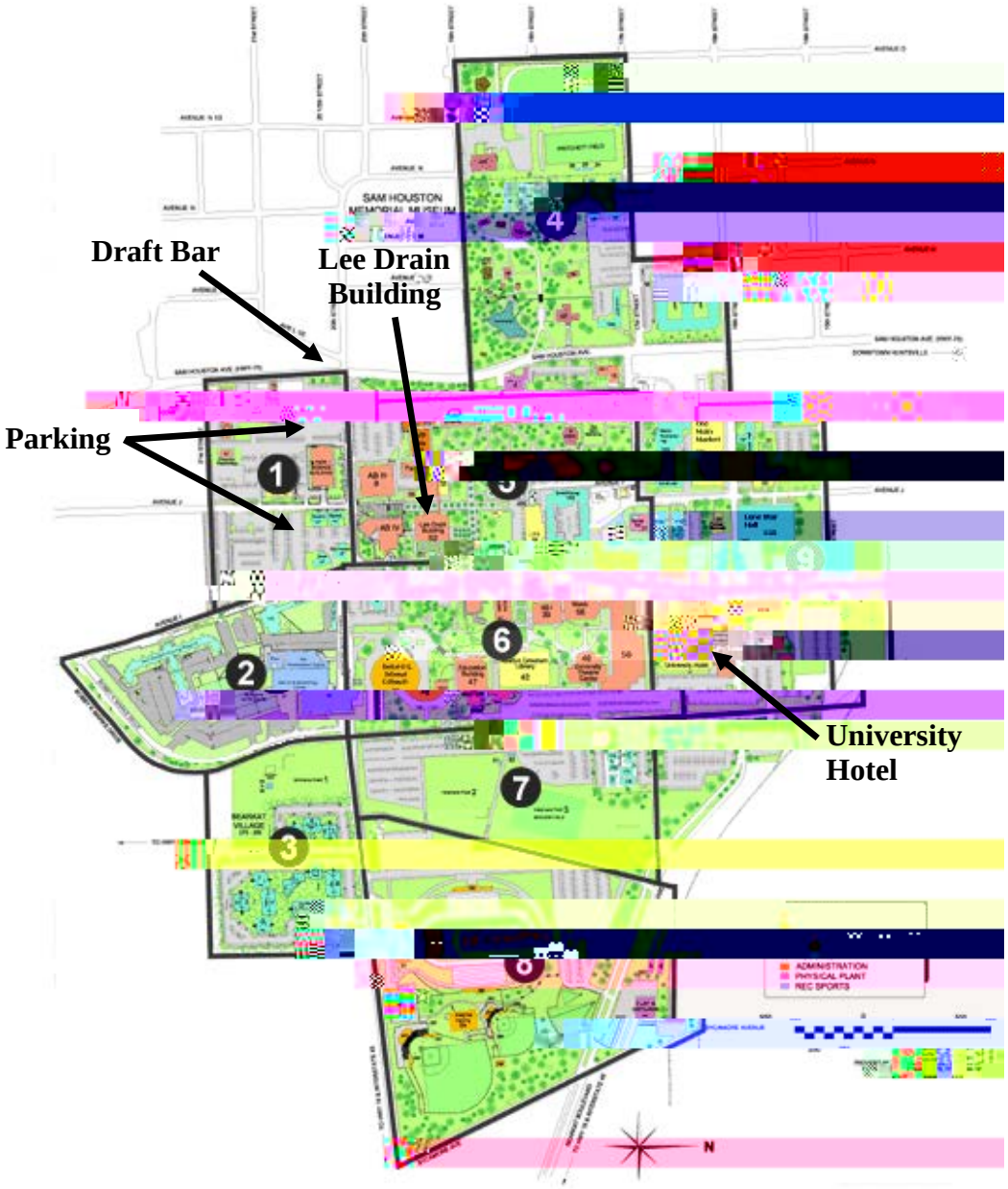
SOCIAL GATHERING

At 6:00, we will gather at the Draft Bar across the street from the main SHSU campus entrance. Food and drink are available for purchase. The bar's location is indicated on the campus map and is in very easy walking distance from campus.

CONFERENCE LOCATION & PARKING


To Dallas
To Bryan/College Station and Austin
Lee Drain Building
To Houston
Texas Prison Museum
Sam Houston State University
Bowers Blvd
Bear Kat Blvd
Boettcher Mill Rd
Eastham Thompson Park
Mathews Lake
Smither Dr
Veterans Memorial Pkwy
Lake Rd
Olive St
Mallery Lake
Gail Ln
Cline St
Vicki Dr
Woodward Dr
Collard Rd
Boettcher Dr
Graham
Autumn Rd
Baldwin Lake
Google

Main Campus


Draft Bar
Lee Drain Building
Parking
University Hotel
SAM HOUSTON MEMORIAL MUSEUM
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ADMINISTRATION
PHYSICAL PLANT
REC SPORTS
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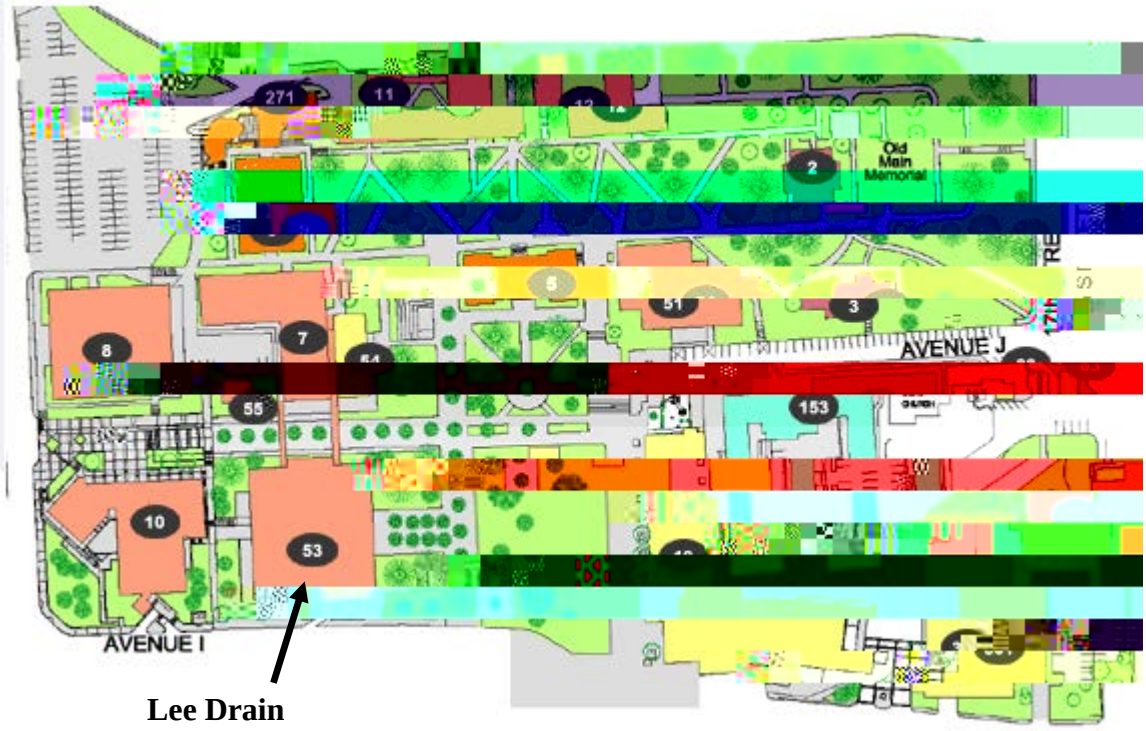
Campus Map > Section 5



Lee Drain

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rate of $82.95 plus tax. It is located on the northeastern corner of campus, offers free parking for guests, and is an easy 5 minute walk from the Lee Drain Building.

http://www.shsuhotel.org/