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;;;Learning Times 131021

>> SOUND CHECK.
>> TEST FOR THE CAPTIONERS.
>> HELLO EVERYBODY.
THIS IS MIKE FROM LEARNING
TIMES.
A PLEASURE TO BE WITH YOU HERE
TODAY FOR THE SECOND IN THE
CARING FOR AUDIOVISUAL MATERIAL
AUDIO SERIES.
PRIOR TO STARTING OFF, I WOULD
LIKE TO BRING YOUR ATTENTION TO
A COUPLE OF THINGS.
ONE, THIS SESSION WILL BE
RECORDED AND THE RECORDING WILL
BE MADE AVAILABLE FROM THE
CONNECTING TO COLLECTIONS ONLINE
COMMUNITY SITE.
SECONDLY, IF THE CHAT FOR THE
SESSION IS UNMODERATED YOU CAN
FEEL FREE TO USE THE CHAT WINDOW
ON THE LEFT OF YOUR SCREEN BY
TIMING YOUR MESSAGE, QUESTIONS,
COMMENTS ETC. IN THE FIELD AT
THE BOTTOM LEFT OF YOUR SCREEN
AND THEN CLICK ONTARIO THE VOICE
BUBBLE OR KEYBOARD AND THE
MESSAGE WILL APPEAR FOR
EVERYBODY.
THANK YOU VERY MUCH TO EVERYBODY
WHO IS LETTING US NOWHERE
THEY'RE JOINING US FROM AND WHAT
THE WEATHER IS LIKE.
IT'S ALWAYS NICE TO HAVE PEACH
REACH OUT FROM AROUND THE WORLD.
WITHOUT FURTHER DELAY I'M GOING
TO STARTS THE RECORDING FOR
TODAY'S SESSION.
I WOULD LIKE TO ADVISE OUR HOST
TO PLEASE GO AHEAD WHENEVER
YOU'RE READY.
>> THANK YOU VERY MUCH, MIKE.
WELCOME BACK, EVERYONE.

IT'S SO NICE TO SEE YOU HOGGING
IN TODAY.

IT LOOKS LIKE WE HAVE ABOUT 208
AND IT'S SLOWLY CLIMBING SO THAT
IS FANTASTIC.

AS MIKE SAID FEEL FREE TO POST
IN THE HOT BOX.

THROUGHOUT THE SECNAR, FEEL FREE
TO POST QUESTIONS THERE AND WE
WILL THIGH TO GET TO THEM BY THE
END OF THE SESSION.

AS YOU KNOW THIS IS JUST ONE OF
MANY COURSES IN OUR SERIES,
CARING FOR YESTERDAY'S TREASURES
TODAY.

WE HAVE COMPLETED SIX COURSES.
IF YOU HAVE MISSED ANY OF THOSE
COURSES OR ARE INTERESTED IN
GOING BACK THROUGH THE MATERIAL
SERVE AVAILABLE ON THE WEB SITE
AND THE RESOURCE LINKS SO CHECK
THAT OUT.

THIS ENTIRE HAS BEEN MADE
POSSIBLE BY THE LAURA BUSH
INSTITUTE OF MUSEUM AND LIBRARY
SERVICES.

WE'RE FORTUNE TO HAVE LEARNING
TIME ON BORED AND MIKE FOR WEB
SITE AND WEBINAR SUPPORT.

FOR THIS PARTICULAR WEBINAR WE
O'HARE TO MY KNOWLEDGE
PRESERVATION FOR ORGANIZING OUR
MATERIALS AND SOMEONE FROMth
CCHA WILL BE ONLINE TO HELP
MODERATE YOUR FANTASTIC
QUESTIONS.

TODAY WE HAVE LAURA HO. RT
STANSON.

LAURA, WOULD YOU MIND SAYING
HELLO TO THE AUDIENCE.

>> IT'S BEEN WONDERFUL TO BE
PART OF AUDIOVISUAL SERIOUS WITH
HERITAGE PRESERVATION AND WE ARE
DELIGHTED TO HAVE BEEN ASKED.

CCHA, WE ARE A NONPROFIT
REGIONAL CONSERVATION CENTER
BASED IN PHILADELPHIA AND WE

WORK PRIMARILY BE PAPER BASED MATERIAL AND ALSO DO HAVE EXPERIENCE WITH AUDIOVISUAL MATERIALS SO IT'S GREAT TO BE HERE: LET ME GO THROUGH LOGISTICS.

TODAY IS OUR SECOND WEBINAR IN THIS COURSE.

AFTER TODAY THE NEXT WEBINAR IS WEDNESDAY AT 2:00 P.M. EASTERN. YOU WILL LOG IN JUST AS YOU DID TODAY.

THAT'S OCTOBER 23, WEDNESDAY. LIKE ALL OF OUR COURSES YOU ARE ELIGIBLE TO EARN A CERTIFICATE OF COMPLETION AND A DIGITAL CREDENTIAL AND WE JUST ASK FOR A FEW THINGS.

FIRST IS THAT YOU HAVE REGISTERED.

WE ASK THAT YOU WATCH ALL FIVE WEBINAR RECORDINGS OR IF YOU'RE JOINING US LIVE THAT YOU WATCH IT LIVE AND YOU SHOULD BE RECEIVING E-MAILS SHORTLY FOLLOWING THE LIVE WEBINARS WITH LINKS TO THE RECORDINGS SO LET US KNOW IF YOU'RE NOT GETTING THAT.

AND THE FINAL IS TO COMPLETE ALL FIVE HOMEWORK ASSIGNMENTS AND IF YOU ARE INTERESTED IN EARNING A CERTIFICATE THEY ARE DUE NO LATER THAN WEDNESDAY NOVEMBER 6. SO FAR, 211 OF YOU HAVE COMPLETED THE FIRST HOMEWORK ASSIGNMENT WHICH IS A HUGE NUMBER SO KEEP UP THE GREAT WORK.

AGAIN THE COURSE HOME PAGE IS WHERE YOU WILL FIND EVERYTHING THAT YOU NEED FOR THIS COURSE. OUR INSTRUCTORS HAVE COMPILED AND ARE STILL COMPILING FANTASTIC RESOURCES AND RECOMMENDED READINGS.

YOU ALSO FIND A PDF POWERPOINT

OF OUR CLOSED CAPTIONING AND
HOMEWORK ASSIGNMENTS.
AND YOU WILL NOW SEE UNDER
WEBINAR ONE, A PDF OF THE
OUTSTANDING QUESTIONS FROM THE
WEBINAR.
KAREN WAS KIND ENOUGH TO GO BACK
AND ANSWER THOSE QUESTIONS.
IF YOU FEEL LIKE YOU HAD ONE
THAT WAS NOT ANSWERED YOU MIGHT
WANT TO CHECK TOUT THAT P. PDF.
SEND US QUESTIONS OR E-MAILS.
WE'RE' HERE TO HELP YOU.
WITHOUT FURTHER DELAY I AM
PLEASED TO INTRODUCE SARAH
STAUDERMAN.
SHE IS THE CARE MANAGER AT THE
SMITHSONIAN ARCHIVES WHERE SHE
OVERSEES THE HISTORIC PHOTOGRAPH
HOLDINGS.
HER INTERESTS HAVING IN THE AREA
OF MAGNETIC DETERIORATION AND
PRESERVATION MANAGEMENT.
SHE WAS ONE OF THE FIRST TO LOOK
AT VIDEOTAPE IN ITS OBJECT FORM
AND HAS ELECTED WIDE WILL YOU ON
THE IDENTIFICATION AND INDICATOR
OF MAGNETIC TAPE FORMATS.
SARAH ALSO PUBLISHED A PAPER ON
THE MANY AUDIOVISUAL CARRIERS
AND ASSOCIATION OF RESEARCH
LIBRARIES SO I'M CONFIDENT TO
SAY WE'RE FROM GREAT HANDS
TODAY.
SARAH I'M GOING TO GO AHEAD AND
PULL MY POWERPOINT OUT OF THE
WAY AND THEN HAND THINGS OVER TO
YOU.
THANK YOU.
>>> SARAH: THANK YOU VERY MUCH
TO JENNY, LAURA, HERITAGE
PRESERVATION AND LIBRARY
SERVICES CONSERVATION CENTER.
LET'S GET GOING.
WE HAVE A LOT TO DO.
IS SO WE'RE GOING TO TALK AUNT
THE RANGE OF RECORDING MATERIALS

FOUND IN FOUND ARCHIVES.
AND OUR OVERVIEW IS THAT WE'RE
GOING TO FIRST LOOK AT MEDIA.
SO WE WILL LOOK AT A LOT OF
DIFFERENT TYPES OF MEDIA THAT
ARE FOUND IN FOUND ARCHIVES AND
TALKING ABOUT THE MATERIAL ARE
CHARACTERISTICS AND
DETERIORATION PRODUCTS AND THEN
WE'RE GOING TO BE LOOKING -- I
WILL BREAK THEREY AND WILL HAVE
TIME FOR SOME QUESTIONS.
THEN WE'RE GOING INTO HANDLING
AND PRESERVATION BASICS, WHAT
YOU NEED TO KNOW ABOUT THE
ENVIRONMENTS, HOUSING, HANDLING,
AND THEN WE'RE -- WE WILL BREAK
AGAIN FOR A LITTLE BIT FOR
QUESTIONS AND THEN WE WILL GO
INTO RESOURCES AND SURVEY TOOLS
THAT YOU CAN USE TO HELP YOU
PRIORITIZE DIFFERENT TYPES OF
MATERIALS IN YOUR COLLECTION FOR
AUDIO MATERIALS.
SO WE HAVE AN ASTONISHING ARRAY
OF MEDIA FOR RECORDED SOUND.
I'M GOING TO TRY TO COVER THIS
IN 30 MINUTES.
WHY ARE THERE SO MANY FORMATS?
AND YOU CAN SEE HERE WE HAVE
THINGS LIKE, CYLINDERS AND WE
HAVE DISKS.
WE HAVE THINGS LIKE WIRE AND WE
HAVE TAPE.
AND THE REASON FOR THIS IS THAT,
IN THE COMPETATIVE WORLD OF
COMMUNICATIONS TECHNOLOGY, EVEN
GOING BACK TOOT 19th CENTURY,
THERE HAS BEEN A NEED BY THE
PEOPLE WHO MAKE THESE MATERIALS
AND BY THE PEOPLE WHO ARE
CONSUMING THEM, FOR
IMPROVEMENTS.
AND FROM A BUSINESS PERSPECTIVE
EVERY TIME THERE'S A NEW
TECHNOLOGY, IT MEANS THAT THE
MEDIA BECOMES EASIER OR CHEAPER

TO MAKE.

IT MAY BECOME SMALLER OR MORE
COMPACT.

IT MAY BE EASIER TO SHIP.
AND FROM A CONSUMER PERSPECTIVE,
PLAY BACK TECHNOLOGY BECOMES
ACCESSIBLE AND LESS COMPLICATED
AND THE MATERIALS BECOME LARGER.
SO WITH EACH ADVANCE IN
COMMUNICATION TECHNOLOGY, FOR
INSTANCE HIGHER FIDELITY COMES A
SIMILAR IMPROVEMENT IN PLAY
BACKING SYSTEMS.

SO WE WILL SEE WITH WIRE
MAGNETIC REGARDING, THE MAY BACK
SYSTEMS USED ARE QUITE POOR
WHICH IS DOCTOR IT WAS NOT A
SUCCESSFUL FORMAT OFFICIALLY
EVEN THOUGH THEORETICALLY IT
COULD BE A GOOD CALL AUDIO
RECORDING.

SO WHAT WE'RE GOING TO COVER, WE
WILL COVER CYLINDERS, DISKS AND
MAGNETIC MEDIA.

I'M NOT GOING TO COVER BELTS,
WHICH ARE A LITTLE OBSCURE.

I'M NOT GOING TO COVER
MAGNETO-OPTICAL OR OPTICAL
MEDIA, CD AND DVD'S.

THOSE MATERIALS, ESPECIALLY THE
OPTICAL MEDIA WILL BE COVERED IN
THE REFORMATTING AND DIGITAL
SECTION OF THESE WEBINARS THE
EARLIEST RECORDINGS THAT MADE
COMMERCIALY ARE CYLINDERS.

THEY WERE ALSO MADE FOR
PROFESSIONAL AND PERSONAL USE.

AND THING BEGIN IN 1877 WHEN
THOMAS EDISON CREATES A
FOIL-COVERED BRASS CYLINDER.
NOW, CYLINDERS STOPPED BEING
COMMERCIALY PRODUCED BY 1929.

BUT THEY WERE USED TO SOME
EXTENT IN LIVE RECORDINGS OF
ETHNOGRAPHIC FIELD NOTES AND
ALSO FOR OFFICE ADDICTEDTATION
SO YOU MAY FIND, IN YOUR

COLLECTIONS CYLINDERS THAT DATE PAST 1930, UP TO THE 1960'S. THESE MATERIALS ARE GROOVED RECORDINGS AND KNOWN AS MECHANICAL OR ACOUSTIC RECORDINGS WHICH I WILL GET INTO IN A MINUTE.

THE MATERIALS ARE MADE OF SOFT WAX OR THEY ARE MOLDED. AND THE SIZES VARY FROM BEING ONLY ONE INCH IN DIAMETER -- ONE AND A HALF INCH IN DIAMETER BY 4 INCHES LONG TO UP TO 5 INCHES IN DIAMETER AND 8 INCHES IN LENGTH AND THERE ARE MANY, MANY MANUFACTURERS OF CYLINDERS AND KNOWLEDGE OF THOSE DIFFERENT MANUFACTURERS ARE VERY IMPORTANT TO SOME COLLECTORS AND CONNOISSEURS, SO IF YOU HAVE CYLINDER RECORDINGS THAT WOULD BE SOMETHING YOU WOULD WANT TO KNOW MORE ABOUT.

SO HERE WE WILL DO A VERY BRIEF OVERVIEW OF WHAT AN ACOUSTIC RECORDING IS.

AN ACOUSTIC ANALOG RECORDING IS ACHIEVED BY A DIAPHRAGM THAT CAN DETECT CHANGES IN ATMOSPHERIC PRESSURE.

SO MY VOICE COMING ACROSS THIS -- I'M SPEAKING INTO A TELEPHONE, THERE'S A TINY DIAPHRAGM THAT ESSENTIALLY VIBRATES, IN CONTEMPORARY DIGITAL PHONES IT'S TAKING MY VOICE AND CHANGING IT INTO AN ELECTRICAL PULSE BUT IN ACOUSTIC SOUND, THE CHANGE IN THE ATMOSPHERIC PRESSURE IS RECORDED AS A GRAPHIC REPRESENTATION OF SOUND WAVES ON A MEDIUM SUCH AS THE PHONOGRAPH.

AND THE PHONOGRAPH TAKES -- IT BASICALLY RECORDS IT IN AN ANALOGOUS WAY.

SO STYLUS SENSES THE CHANGE IN

THE ATMOSPHERIC PRESSURE AND RECORDSIST AS A GROOVE ON A RECORD.

THERE'S NO ELECTRONIC AMPLIFY INDICATION IN AN ACOUSTIC RECORDING.

SO ESPECIALLY WITH CYLINDERS, THE ADDIO REQUIRED A VERY LARGE HORN TO CAPTURE THE DISTINCT AIR PRESSURE FROM THE MUSICAL INSTRUMENT OR VOICE.

SO WHEN YOU LUKE AT THIS PICTURE OF THE MOUNTAIN CHIEF OF MONTANA BLACK FEET HE IS ACTUALLY LISTENING TO A RECORDING.

THIS HORN IS AMPLIFYING THE SOUND THAT IS COMING FROM A DISK THAT IS WHERE MY ARROW IS.

AND AS THE STYLUS GUESS AROUND THE GROOVE, IT IS BEING AMPLIFIED THROUGH THIS HORN.

SO THIS IS A GRAPHICAL DEPICTION OF HOW SOUND PROPAGATES IN SPACE AND TIME.

AN INSTRUMENT OR A VOICE WILL PUSH, WITH AIR PRESSURE, PUSH IN SPACE ACROSS TIME AND THE FREQUENCY IS THE HIGHNESS OR LOWNESS, AND THE AMPLITUDE IS THE LOUDNESS OR SOFTNESS.

AND THESE PHILOSOPHIES CAN BE CAPTURED MECHANICALLY BY SIMPLY CUTTING THE GROOVE INTO THE MEDIUM THAT IS THE ANALOG OF THE SOUND WAVE.

OK.

SO HERE ARE SOME PICTURES OF SOME CYLINDER RECORDS.

SLIRND.

>> HOUR TOP LEFT HERE IS FROM 1886, THE BELL AND TAINTER WAX CENTER WITH A CARD BORE CORE AND THIS IS THE ORIGINAL BOX THIS CYLINDER INTRODUCED THE CONCEPT OF INCISING THE SURFACE OF THE WAX RATHER THAN INDENTING IT AND BEFORE 1886, WITH TIN FOIL

RECORDS THE SURFACE WAS
INVENTED.

THIS CYLINDER RIGHT HERE AND
THIS CYLINDER RIGHT HERE ARE
SOLD WAX CYLINDERS.

ONE ON THE TOP RIGHT, THE ED
APHONE AND THIS IS THE GRAPHO
PHONE RIGHT HERE THESE THREE
RECORDINGS ARE USUALLY ORIGINAL
RECORDINGS OR UNIQUE RECORDINGS.
THEY WERE NOT PRERECORDED.

IT'S UNUSUALLY TO FIND A
PRERECORDED WAX CYLINDER.

SO IN THE FIRST FEW YEARS OF
THEIR MANUFACTURE, IF YOU WERE
TO HAVE ONE IN YOUR COLLECTION
YOU WOULD SEE THEY'RE AN IVORY
OR CREAM COLOR AND LATER YEARS
THEY BECAME COLORED INTO A DAMAGED
BROWN.

ON OCCASION THEY WERE USED
SOLELY FOR DICTATION AND THE WAX
COULD BE SCRAPED OFF FOR A NEW
SURFACE OR RECORDING.

AND THE WAX CYLINDERS WERE MADE
OF A VARIETY OF WAXES, RESINS,
SOAPS AND OILS AND HAD A VARIETY
OF PLASTICIZERS, LUBRICANTS AND
HARDENERS.

SO THEN WE HAVE THE ADVENT OF
MOLDED CYLINDERS, WHICH WERE
DEVELOPED TO BE PRERECORDED
MEDIUM FOR MUSIC AND SPEECH.
AND THE EARLIEST ONES ARE FROM
ABOUT 1902 OR 1903 AND THEY ARE
MADE OF A METALLIC SOAP, WHICH
IS ESSENTIALLY A HARDENED WAX
AND VERY FRAGILE AND THEY CAN
BECOME BRITTLE.

ABOUT 1912, THOMAS EDISON
CREATED SOMETHING CALLED THE
BLUE AMBEROL WHICH WAS A
SPECIFIC TYPE OF CYLINDER.
IT'S A NITRO CELLULOSE OR
CELLULOID PLASTIC CYLINDER THAT
HAS A PLASTER OF PARIS CORE.
AND IN THAT PARTICULAR RECORDING

THE PLAYING TIME WAS AROUND 4 MINUTES AND IT ROTATED ABOUT 160 REVOLUTIONS PER MINUTE.

I THINK THE SELLING FEATURE OF THESE EARLY RECORDINGS, THE BLUE AMBER ALL RECORDINGS IS THAT THANK YOU WERE CONSIDERED UNBREAKAGE OR INDESTRUCTIBLE AND THAT'S HOW THEY WERE MARKETED, AS BEING THE UNBREAKABLE BLUE AMBEROL.

SO HERE ARE SOME OF THE TRAITS AND PROBLEMS WITH CYLINDERS. IF YOU HAVE CYLINDERS IN YOUR COLLECTION YOU COULD ACKNOWLEDGE THE RECORDING TIME TO BE AROUND 4 MINUTES BUT THEY VARY AND COULD BE AS FEW AS A FEW SECONDS, YOU KNOW, 10, 20, 30, 40, SECONDS.

THE PLAY BACK IS TYPICALLY AROUND 160 REVOLUTIONS PER MINUTE OR ROTATION PER MINUTE BUT IT'S HIGHLY VARIABLE AND IT DEPENDS VERY MUCH ON THE ORIGINAL INSTRUMENT THAT WAS REGARD RECORDING THE CYLINDER AND IT DEPENDS VERY MUCH OFTEN THE PARTICULAR FEATURES THAT THE MANUFACTURER WAS PUTTING INTO THEIR CYLINDERS.

AND THESE RECORDINGS ARE GROOVED.

AND THE GROOVES CAN CAN BE UP AND DOWN OR SIDE TO SIDE. SOME OF THE PROBLEMS WITH THEM IS THEY CAN BE FRAGILE.

THE WAXES TEND TO, IN THE HIGH HUMIDITY SITUATION, CAN PROMOTE FUNGAL GROWTH.

THEY CAN BE FLAMMABLE.

THEY ARE NOT INTERCHANGEABLE WITH ONE ANOTHER.

THEY CAN SHRINK OVERTIME AND THE PRODUCTION VALUES OF THE ORIGINAL RECORDING CAN BE QUITE POOR OR INCONSISTENT.

NOW WE WILL MOVE ON TO DISK
RECORD VTION.

THE GROOVED DISK OR YOU CAN CALL
ATE PLATTER OR A RECORD, WAS AN
INVENTION OF [INAUDIBLE] IN
1887.

AND ADVANCES OVER THE NEXT 75
YEARS CREATED DOZENS OF SIZES OR
DIAMETERS, DOZENS OF ROTATION
SPEEDS, DOZENS OF COLORS AND
PROMOTIONAL INTERESTS.

DISKS ARE MADE THROUGH A MASTER
AND MOTHER PROCESS.

THIS MASTER AND MOTHER PROCESS
IS WHERE MA RECORDING INTLAINGS
ETCHED.

THE RECORDING BLANK BECOMES OR
IS NAME ADD MATRIX.

AND THAT MATRIX BECOMES THE
PERMANENT MOLD OR BECOMES THE
MOLD FOR WHICH A PERMANENT MOLD
IS CREATED.

AND THEN THE MOLD IS EITHER CAST
OR STAMPED INTO A PRERECORDED
DISK.

SO THAT'S IF YOU'RE MAKING
MULTIPLE PUBLISHED DISKS BUT
THERE ARE LOTS OF DISKS OUT
THERE THAT ARE MADE FOR AN
INSTANTANEOUS PROCESS, WHERE A
STYLUS CUTS A GROOVE IN A BLANK
DISK AND CAPTURES A UNIQUE
MOMENT IN TIME.

AND THERE ARE BASICALLY THREE
TYPES OF DISK MATERIALS.

AGAIN THIS INSTANTANEOUS DISKS
ARE USUALLY TREATED OF A LACQUER
OR A RESIN ON A RIGID CORE.

THESE ALSO COULD BECOME
MATRIXES.

THEY COULD BE SHELLAC TYPE
RECORDINGS OR THEY COULD BE
THERMOPLASTIC DISKS.

SO INSTANTANEOUS OF LACQUER ON A
RIGID CORE, SHELLAC TYPE
RECORDINGS OR THERMOPLASTIC
DISKS.

AND IN THE MIDST OF ALL OF THIS THERE ARE A VARIETY OF MASTER RECORDING BLANK MATERIALS AND VERY UNUSUALLY DISKS DEVELOPED FOR SPECIFIC MARKETS.

SO YOU NEED TO GET TO KNOW YOUR OWN COLLECTIONS TO SEE IF THERE ARE MATERIALS THAT ARE UNUSUALLY OR UNUSUALLY DISKS IN YOUR COLLECTIONS.

AND I'M GOING TO BREAK DOWN THESE BASIC TYPES OF DISKS INTO THREE CATEGORIES, THE 78RPH, THE 33 AND 1/3 RPM.

RPM STANDS FOR REVOLUTIONS OR ROTATIONS PER MINUTE AND YOU CAN GET INTO SOMETIMES HEDED DISCUSSIONS WITH AUDIO ENGINEERS ABOUT WHETHER IT'S REVOLUTION OR ROTATION.

OK.

HERE ARE SOME PICTURES OF SOME DISKS.

THIS IS AN 1887 BEUERLEINER RECORD.

IT'S LATEX RUBBER WHICH HAS BEEN VULCANIZED WITH SULFUR, SO IT'S ALSO KNOWN AS VULCANITE.

THESE PARTICULAR TYPES OF RECORDINGS CAN BE MALFORMED WITH A MODEST AMOUNT OF HEAT.

OVER HERE, THIS DISK IS KNOWN AS A SHELLAC DISK, AND IT HAS MULTIPLE FORMULATIONS BUT ESSENTIALLY IT'S A CLAY DISK WITH POWDERED SHELLAC, LAMP BLACK, WHICH IS A KIND OF CARBON, AND COTTON FIBERS AND THE DIAMETER OF THE DISKS CAN BE 7 INCHES, 10 INCHES, 12 INCHES, 13 INCHES, OR 16 INCHES.

AND THEIR ROTATIONS CAN BE 70, 78, OR 30.

AND THESE PARTICULAR DISKS TEND TO BE FAIRLY STABLE.

THEN OVER HERE, THIS IS A LACQUER OR ACETATE DISK.

IT'S CALLED ACETATE, EVEN THOUGH THE COATING, THE THIN FILM COATING OF THE CORE IS USUALLY CELLULOSE NITRATE AND SO THERE'S A CORE OF ALUMINUM OR GLASS OR ZINC, COATED WITH THIS FILM OF CELLULOSE NITRATE AND ONCE THE CELLULOSE NITRATE HAS HARDENED, THE GROOVE IS CUT INTO IT.

THESE ARE ALSO KNOWN AS DIRECT-CUT DISKS AND THEY CAN BE USED AS THE MAY TRACTION, IN OTHER WORDS TREATED AS THE FIRST RECORDING FROM WHICH YOU MAKE HUNDREDS OF OTHER RECORDINGS OR AS A UNIQUE INSTANTANEOUS DISK. AGAIN, THEY MAY HAVE A CORE OF ALUMINUM GLASS OR ZINC.

THEIR TYPICAL SIZES ARE 10 INCHES, 12 INCHES, 13 INCHES, 16 INCHES, AND THESE PARTICULAR RECORDINGS HAVE A RANGE OF PROBLEMS FROM SHRINKING, PEELING, CRACKING OR IM BRITTLEMENT DUE TO THE PLAFT SIZER INSIDE THE ACETATE FILM THAT SUB MAWTS OR BREAKS UP TO AND LEAVES A STICKY RESIDUE ON THE SURFACE.

SO HERE WE HAVE TWO MORE EXAMPLES OF INTERESTING UNIQUE RECORDINGS.

THE ONE ON THE LEFT IS AN ALUMINUM INSTANTANEOUS DISK RIGHT HERE.

AND THERE WOULD BE A STEEL NEEDLE THAT WOULD CUT THE GROOVE INTO THE DISK.

SO THIS IS A UNIQUE RECORDING. AND OVER HERE ON THE RIGHT IS A DIFFERENT TYPE OF DIFNLGT IT'S A DICTATION DISK AND IT'S A IS ANOTHERER PLASTIC AND IT WOULD HAVE THE GROOVE CUT INTO IT AND THIS IS USED IN A LOT OF OFFICES FOR DICTATION.

AND THE BRAND NAMES FOR THIS TO

TYPE OF DICTATION DISK MIGHT BE KNOWN AS VOICE WRITER, GRAY MANUFACTURING, AND AUTOGRAPH. AND DUDOGRAPH -- IT'S AUTOGRAPH. THEY'RE USUALLY 12 INCHES OR SMALLER IN DIAMETER AND THESE ARE UNIQUE RECORDINGS. NOW WE GET INTO A NEW FORMULATION.

WE'RE TALKING ABOUT 78s WHICH HAVE SOME OTHER INTERESTING CHARACTERISTICS.

I SHOULD MENTION THAT SOME 78s, ESPECIALLY THE INSTANTANEOUS 78s, THE STYLUS OF THE NEEDLE ACTUALLY IS PUT UP ON THE RECORDING FROM THE INSIDE OUT.

THE GROOVE IS CUT FROM THE INSIDE OUT AS OPPOSED TO THE OUTSIDE IN.

BUT WHEN YOU GET IN TO LONG PLAY FINAL DISKS, WHAT WE FIND IS, MUCH MORE STABLE.

DISKS THAT ARE USUALLY 95 PERCENT OF THEM, ARE PUBLISHED DISKS.

AND ON THE LEFT HERE, THIS IS A NOVELTY DISK.

SO IT'S THE SORT OF TRANSPARENTIZED VINYL AND YOU WILL SEE THIS WITH A NUMBER OF DISKS IN THE 60s AND 70s WHERE IMAGES COULD BE PUT ON TO DISKS AND BE PUBLISHD AS A NOVELTY ITEM.

THEN WE HAVE THE MICROGROOVE RECORDING.

MICROGROOVE RECORDING, AND THIS 21 IS A 45 ROTATIONS PER MINUTE, HAS ABOUT 200 TO THREE HUNDRED MORE LINES PER INCH THAN THE 78 AND IT REQUIRES A STYLUS TIP RADIUS OF 1 MILL METER OR LESS. LP OR LONG PLAY DISKS MRS. HAVE THE MICROGROOVE RECORDING OCCURRING BUT THEY RUN AT 33

AND 1/3 REVOLUTIONS PER MINUTE,
AND I SEE THIS MICROGROOVE, THE
SMALLER RECORDING, IT'S SMALLER
IN DIAMETER, GOES AT 45RPM'S.
AND THESE ARE TYPICALLY
PUBLISHED DISKS, MEANING THEY'RE
NOT UNIQUE RECORDINGS.

SO HERE ARE DISPRITS PROBLEMS
OF DISKS.

78s ARE USUALLY LESS THAN
THREE MINUTES PER SIDE.

LPs USUALLY HAVE 10-20 MINUTES
PER SIDE.

ALL OF THESE RECORDINGS ARE
GROOVED, DEPENDING ON THEIR VIN
CONTINUAL, THEY COULD BE
VERTICAL OR LATERAL OR SIDE TO
SIDE GROOVES.

OUR BIGGEST ISSUES WITH DISKS
ARE THE ACETATES WHICH HAVE VERY
SERIOUS DELAMINATION PROBLEMS
AND PROBLEMS WITH THE LUBRICANT
WHICH COMES OUT, AND THE -- IT'S
USUALLY I HAD A PALMITIC ACID
EXUDATE AND THIS HAPPENS WITH
THE RECORDINGS THAT ARE UNIQUE
WE HAVE A SIGNIFICANT PROBLEM
GETTING THE SOUND OFF AS ATIGHTS
HAVE GLASS CORES WHICH MAKES
THEM FRAGILE AND HEAVY.

AND THE LP'S OR LONG PLAYS ARE
FAIRLY FLEXIBLE AND ROBUST.

OK.

THE NEXT TYPE OF MATERIAL THAT
WE HAVE GOT HERE IS
McGILL-TOOLENIC -- IS MAGNETIC
MEDIA.

I WILL SHOW YOU THE PICTURES OF
DIFFERENT TYPES OF TAPES AND WE
WILL TALK ABOUT THE HISTORY OF
MAGNETIC MEDIA, WHEN IT BECAME
VIABLE.

WE WILL TALK ABOUT FORMAT AND
TAPE TRACKING CONFIGURATIONS.
THERE ARE TENS OF FORMAT AND
MULTIPLE TRACK CONFIGURATIONS.
WE WILL BE TALKING ABOUT THE

MATERIALS THAT MAKE UP THIS
MAGNETIC MEDIA AND THEIR
STABILITY.

SO, MAGNETIC RECORDINGS
BECAME -- WELL, BECAME VIABLE
AND WERE AVAILABLE AS EARLY
AS 1893.

THERE WAS AN INVENTOR NAMED
VLADIMIR POLE SON WHO CREATED A
WIRE RECORDINGS AND THAT'S WHAT
YOU'RE LOOKING AT RIGHT HERE.
THIS WIRE RECORDING WITH A
STAINLESS STEEL WIRE, SEVERAL
HUNDRED FEET LONG.

VERY THIN.

THE PLAY BACK EQUIPMENT FOR
MOST WIRES WAS INTERIOR AND
PRODUCED POOR SOUND FIDELITY SO
IT DIDN'T TAKE OFF COMMERCIALY.
IN THE 1940'S, THE TECHNOLOGY
THAT CREATED THE MAGNETIC WIRE
WAS APPLIED TO TAPE.

AND THAT'S WHERE WE BEGAN TO SEE
THAT MAGNETIC TAPE TAKES OFF AND
IT WAS FIRST PERFECTED IN
GERMANY IN THE 1930'S AND
THROUGHOUT WORLD WAR II YEARS.
ALLIED FORCES CAPTURED SAMPLES
OF THE TAPES AND TAPE MACHINES
AT THE END OF WORLD WAR II AND
BROUGHT THEM TO BRING IT
CONTINUE IN THE UNITED STATES
FOR DEVELOPMENT.

SO BY THE LATE 1940'S, AMPEX,
WHICH IS THE COMPANY THAT
PROMOTED MAGNETIC MEDIA, AND
EMI, ANOTHER COMPANY, HAD
DEVELOPED BROADCAST-QUALITY REEL
TO REEL TAPES.

AND THERE WE HAVE OUR FIRST
PICTURE OF REEL TO REEL TAPES.

>> MAGNETIC RECORDING HAS
SPANNED THE ACOUSTIC,
ELECTRONIC, AND DIGITAL
RECORDING AGE.

SO THE CONTENT ON ANY MAGNETIC
MEDIA, BE IT REEL TO REEL OR IN

A CASSETTE OR IN A CARTRIDGE CAN BE ANALOG OR DIGITAL.

SO ON THESE TAPES, WE HAVE, ON OUR TOP LEFT HERE, THIS LOOKS LIKE A QUARTER INCH AUDIO TAPE TO ME.

OVER HERE, THIS IS A TWO INCH TAPE.

AND THIS MIGHT BE -- ACTUALLY IT LOOKS LIKE THIS IS A TWO INCH VIDEOTAPE.

BUT ONE MUCH THE PROBLEMS WITH MAGNETIC AUDIO TAPE IS THAT FREQUENTLY IT'S DIFFICULT TO DISTINGUISH IT FROM TWO INCH VIDEOTAPE.

SIMILARLY, WITH ONE INCH VIDEOTAPE WHICH IS DOWN HERE, THE POINT IS WHEN YOU LOOK AT REEL TO REEL TAPES UNLESS YOU CAN TRUST THE BOX YOU MIGHT BE DEALING WITH VIDEO, YOU MIGHT BE DEALING WITH AUDIO.

OVER HERE, THIS IS A PAPER BASED AUDIO TAPE.

SO THE VERY FIRST MAGNETIC MEDIA WAS INITIALLY PUT ON TO A PAPER BASE, AND I WILL TALK MORE IN A JUST 5 MINUTE ABOUT HOW MUCH THESE THINGS ARE CONFIGURED.

SO ON A MAGNETIC TAPE, YOU WON'T BE ABLE TO SEE THE SOUND EXACTLY, BUT IF YOU COULD USE A MAGNETIC VIEWER, AND YOU COULD ACTUALLY DEVELOP OUT THE TAPE TRACKS, WHAT YOU WOULD SEE IS WHAT YOU'RE SEEING IN THIS PICTURE.

THESE ARE TAPE TRACKS AND THIS IS WHAT YOUR RECORDING LOOKS LIKE.

SO ONE OF THE INTERESTING THINGS TO THINK ABOUT IS THAT EACH MAGNETIC -- ON A MAGNETIC AUDIO RECORDING, YOU CAN HAVE FULL TRACKS, HALF TRACKS, QUARTER TRACKS AND SO ON.

WHY THAT IS IMPORTANT IS YOU WANT TO BE ABLE TO KNOW WHETHER OR NOT THE RECORDING YOU HAVE HAS MULTIPLE TRACKS ON IT AND WHETHER OR NOT THEY ARE RECORDED IN STEREO, WHETHER OR NOT THEY'RE RECORDED IN MONO, OR IF THEY'RE RECORDED IN OTHER -- WHAT THE RECORDING OR THE PRODUCTION VALUE THAT WAS PLACED ON THE TAPE TRACK.

THE OTHER -- ONE OF THE OTHER THINGS THAT YOU NEED TO KNOW ABOUT AUDIO MAGNETIC MEDIA IS THAT THE RECORDING SPEED OF THE TAPE CAN BE SEVEN AND A HALF INCHES PER SECOND.

AND YOU WILL SOMETIMES SEE THAT ABBREVIATED AS IPS.

IT CAN BE THREE AND THREE QUARTERS INCHES PER SECOND OR 15 INCHES PER SECOND.

EACH OF THOSE QUALITIES ACTUALLY HAS A BEARING ON THE QUALITY OF THE RECORDING.

SO WE HAVE TAPE TRACK CONFIGURATIONS THAT YOU NEED TO KNOW ABOUT YOUR NAMES AND THERE'S THE SPEED OF THE TAPE THAT YOU NEED TO KNOW ABOUT.

SO WHAT IS MAGNETIC, WHAT IS IT COMPOSED OF?

OK.

A TAPE IS COMPOSED IN A CROSS-SECTION OF A BASE WHICH I'M POINTING AT RIGHT NOW.

A BINDER, WHICH IS THIS DARKER GRAY AREA.

AND A PIGMENT.

AND THE PIGMENT ARE THE LITTLE TINY DOTS THAT ARE IN HERE.

IN ADDITION TO THE PIGMENT WHICH IS ESSENTIALLY THE RECORDING

MEDIUM, YOU ALSO HAVE

LUBRICANTS, STABILIZERS AND

OTHER MATERIALS THAT HELP THE

TAPE DO ITS JOB IN A PLAY BACK

MACHINE.

AND ALSO WITH A LOT OF AUDIO RECORDINGS YOU HAVE A BACK COAT. AND THIS BACK COAT IS USUALLY COMPOSED OF CARBON AND A POLY URETHANE FLURRY.

AND IT HELPS THE TAPE GO THROUGHOUT PLAY BACK MACHINE MORE QUICKFULLY.

>> IN THIS SLIDE YOU SEE I LABELED THE BASE AS POLLIESTER. BUT IN FACT NOR AUDIO RECORD, ESPECIALLY EARLY AUDIO RECORDINGS, THE EARLIEST WERE PAPER.

FROM ABOUT THE 1940'S UNTIL ABOUT THE EARLY 1960'S, WE HAVE A LOT OF AUDIO TAPE WHICH IS PLACED ON CELLULOSE ACETATE AND THAT MEANS THAT OLDER AUDIOTAPES MAY SUFFER FROM VINEGAR SYNDROME, AND GROM NOT SURE IF ANY PERSON OWN THE CALL HAS EVER HAD OR KNOWS WHAT VINEGAR SYNDROME IS BUT I IMAGINE A LOT OF PEOPLE ARE ROLLING THEIR EYES RIGHT NOW.

THIS IS A BUGS PROBLEM NOT JUST WITH FILM BUT IT'S A PROBLEM WITH AUDIOTAPES, PRIOR TO THE EARLY 1960'S.

SO WE V. THE BASE WHICH IS POLLIESTER OR ACETATE, VERY RARELY PAPER.

WE HAVE THE BINDER WHICH IS POLY URETHANE AND THE PIGMENT WHICH IS THE MAGNETIC PARTICLES AND THEN WE HAVE THE BACK COAT. WHAT DOES THAT ALL MEAN?

WELL THE MAGNETIC COMPONENT IN AUDIO TAPE IS ALMOST ALWAYS GAMMA FARUK OXIDE, WHICH IS A PRETTY DECEMBER EVENT MAGNETIC PARTICLE WHICH WILL HOLD ON TO ITS MAGNETIC FIELD PRETTY WELL. IN EARLY MAGNETIC MEDIA OR EARLY REEL TO REEL TAPES WHAT WE FIND

IS THAT THE GAMMAPHARIC OXIDE IS NOT WELL PROCESSED AND DOESN'T HOLD ON TO ITS SIGNAL AS WELL AND CAN BE EASILY OVERWRITTEN. THIS IS WHERE ARCHIVISTS SUGGEST THAT PEOPLE WIND OR REWIND THEIR TAPES BECAUSE OF THE PRINT THROUGH.

THE PRINT THROUGH IS BECAUSE OF THE MAGNETIC FIELD FROM ONE LAYER OF THE TAPE PRINTS THROUGH TO THE NEXT LAYER OF THE TAPE. THE LONG STORY SHORT IS THAT IT'S ONLY GOING TO HAPPEN ONCE. FIT HAPPENS THERE'S NOTHING YOU CAN DO TO UNDO IT SO WINDING OR REWIND SUGGEST NOT GOING TO HELP YOU.

AND GAMMA FERRIC OXIDE IS WHAT WE HAVE USED.

GAMMA FERRIC OXIDE.

BARIUM FERRITE WAS USED.

AND CHROMIUM DIOXIDE WAS USED IN THE CASSETTE TAPES OF THE EARLY 1980s.

WHEN YOU LOOK AT CHROMIUM DIOXIDE, IT PROBABLY PROMOTED DAMAGE TO THE CERTIFICATION OF THE TAPE.

SO EARLY 1980s, CHROMIUM DIOXIDE TAPES CAN BE PROBLEMATIC.

THEN WE HAVE METAL PARTICLE TAPE AND METAL EVAPORATED, WHICH ARE ALSO USED WITH DIGITAL AUDIOTAPES AND MOST OF THESE ARE DIGITAL FRAGILE AND MORE BECAUSE OF THE BINDER THAN THE MAGNETIC COMPONENT.

>> SO LET'S GET BACK TO THE WHOLE ISSUE OF THE DETERIORATION.

WE HAVE THE PHYSICAL STRUCTURE OF THE BASE, BINDER AND THE PIGMENT.

WHAT TURNS OUT IS THE BIGGEST PROBLEM WITH MAGNETIC MEDIA IS

THAT THE BINDER FAILS, THAT'S
THE POLY URETHANE.

THE BINDER HAS AN EXPECTANCY OF
10-30 YEARS.

THE FIRST THING YOU'RE GOING TO
DO AFTER THIS CLASS IS GO LOOK
UP THIS HANDBOOK "MAGNETIC TAPE
STORAGE AND HANDLING" PUBLISHED
IN 1995 WHICH WILL TELL YOU
EVERYTHING YOU NEED TO KNOW
ABOUT STICKY SHED SYNDROME AND
WHY THE POLY URETHANE WILL
DETERIORATE AND WHAT IT MEANS
FOR YOUR MAGNETIC MEDIA
COLLECTION.

SO TINGING -- CONTINUING ON WE
INTO THE WORLD OF COMMERCIAL
CASSETTES AND DICTATION
CASSETTES.

ALL ARE MAGNETIC MEDIA JUST IN A
DIFFERENT FORMAT AND EACH
REQUIRES THEIR OWN PLAY BACK
MACHINE.

SO WHAT WE HAVE IS NOT ONLY A
PROBLEM WITH THE TAPE
DETERIORATING BUT WE HAVE FORMATS
ON EXCELLENCE SO YOU MAY SEE
ANY OF THESE ITEMS IN EUROPE
COLLECTION AND THESE INTEREST
JUST STANDARD CASSETTES.

THIS IS A MICROCASSETTE OVER
HERE AND IT'S REALLY -- IT'S
VERY SMALL.

AND AN 8-TRACK TAPE, AND THEN
THESE SORT OF STRANGE COMMERCIAL
RECORDINGS.

AS YOU GET INTO THE 1970S AND
1980s, SOME VIDEOTAPE LOOKING
CASSETTES ARE USED FOR AUDIO
CASSETTES SO YOU MAY END UP WITH
THINGS THAT LOOK LIKE 3/4 INCH
AUDIOMATICS AND I KNOW YOU HAD
TALK ABOUT THIS ON WEDNESDAY BUT
YOU MAY END UP WITH TAPES THAT
LOOK THIS BUT ARE AUDIOTAPES SO
KEEP THAT IN MIND.

THEN WE MOVE INTO THE WORLD OF

DIGITAL CASSETTES.

IT'S EXACTLY THE SAME BUT IT HAPPENS TO BE ENCO-ED AS A DIGITAL SIGNAL NOT AN ANALOG SIGNAL AND THOSE TRACKS ARE NOW DIGITAL TRACKS.

SO WHAT ARE THE TRAITS AND PROBLEMS FOR THESE MATERIALS.

ONE OF THE BIGGEST ISSUES IS KNOWING WHAT FORMATS THAT YOU HAVE.

YOU NEED TO LOOK AT EACH OF YOUR TAPE TYPES AND IDENTIFY THE SHAPE OR SIZE OF THE TAPE, CASSETTE OR REEL.

AND EACH OF THESE FORMATS PROSECUTE SPECIFIC TO THE PLAY BACK MACHINE.

AND, IN ADDITION, THERE ARE TAPE TRACK CONFIGURATIONS WHICH I SORT I OF ALLUDED TOE WHEN LOOKING AT THE TAPE AND THE TRACKS THIS IS ESSENTIAL INFORMATION FOR OPTIMIZING PLAY BACK, SO, AGAIN IF YOU HAVE A FULL TRACK YOU WOULD WANT TO CAPTURE ALL OF THE FULL TRACK. IF YOU HAVE A QUARTER TRACK YOU WOULD WANT TO MAKE SURE THAT YOU'RE CAPTURING EACH OF THOSE AND THAT'S VERY IMPORTANT THAT YOU UNDERSTAND NOT DIFFERENCE BETWEEN EACH OF THOSE TRACK CONFIGURATIONS.

AGAIN WE HAVE DIFFERENT SPEEDS. SO THIS INCHES PER SECOND IS SOMETHING THAT YOU WILL SEE ON THE BACK OF THE CONTAINERS.

A LOT -- YOU WILL SEE 15I PI.s OR SEVEN AND A HALF IPS.

AND THE SLOWER, THE 3 AND 3/4 INCHES PER SECOND YOU'RE GETTING LESS QUALITY THAN AT 15.

ANOTHER THING THAT YOU SHOULD KNOW ABSENT IS THAT THE NATIVE FORMAT OF THE DIGITAL AUDIO TAPE, THE NATIVE FORMAT OF THE

DIGITAL AUDIO TAPE IS 16 BIT,
44.1-KILO HERTZ.

THAT MEANS THE NATIVE FORMAT OF
A DIGITAL AUDIO TAPE WHICH IS
MAGNETIC MEDIA, IS AS GOOD
QUALITY AS THE STANDARD FOR
REFORMATTING ANALOG TAPES IS.
WHEN YOU GUYS ARE ALL TALKING AT
THE END OF THE SESSION N. A
COUPLE OF WEEKSABLE REFORM
MASTING JUST REMEMBER YOUR
DIGITAL AUDIO TAPE DOESN'T NEED
TO BE REFORMATTED.

IT JUST NEEDS TO BE TRANCE CODED
FROM THE 16 BIT 44-KILO HURTS
FORMAT INTO KILO HERTZ INTO A
WAVE FILE.

NOT TO BELABOR THIS BUT I DON'T
WANT TO DESCRIBE TWO THINGS.
BY THE DEPTH OR ENTITY
CONSIDERED THE LENGTH OF THE
WORD OR THE QUANTITY OF COLORS
OF A SOUND OF OF A SAMPLE.
AND KILO HERTZ STANDS FOR THE
SAMPLING RATE.

THAT'S HOW FREQUENTLY THE AUDIO
IS CAPTURED BY THE DIGITAL
RECORDER.

SO THAT'S 16 BIT, 41-KILO HERTZ.
YOU A 16 1s AND 0s AND
YOU'RE SEAMPLING AT A RATE OF
44.1-KILO HERTZ.

THIS ADDS UP.

IF YOU WERE TO DO THAT RECORDING
FOR ONE HOUR, THAT'S WORTH ABOUT
600 MEGABYTES.

I WANT YOU TOO KNOW WIRE IS
STABLE BUT IT'S COMPLETELY
OBSOLETE.

AND ITS PRIMARY PROBLEMS ARE
MECHANICAL.

SO IT CAN IN THE IS THE IS MAKE.
>> AND THE LEAST STABLE PART OF
MAGNETIC MEDIA IS THE POLLY
URETHANE BINDER, LALSLESS OF WHO
IT'S ALL -- OR DIGITAL.

AND WE ALL KNOW WE HAVE MAGNETIC

MEDIA THAT IS OLDER THAN 30 YEARS AND IT'S FINE AND WE ALL HAVE EXAMPLES OF MAGNETIC MEDIA WHICH IS LESS THAN 10 YEARS AND IS NOT FINE AND YOU CANNOT PLAY IT BACK.

BUT THAT'S THE RULE OF THEM A. AND GIVEN THAT IT'S GOING TO BE AN IMPORTANT PART OF FIGURING OUT WHAT IS YOUR HIGHEST PRIORITY FOR REFORM MASTING IS KNOWING THAT YOU HAVE ONLY BASICALLY THIS 10 TO 30 YEAR WINDOW.

ALL RIGHT.

SO I HAVE SPOKEN INTO THE ETHER FOR OF THE LAST HALF HOUR.

MAYBE IT'S TIME TO DO SOME QUESTIONS HERE.

LOTS OF QUESTIONS.

SARAH.

>> THIS IS LAURA.

I HAVE BEEN GATHERING QUESTIONS THAT ARE COMING THROUGH THAT I THINK WOULD BE RELEVANT TO WHAT YOU'RE SPEAKING ON AND PROBABLY TO THE BIGGEST PRESUME AND I THINK WE PROBABLY HAVE TIME FOR THREE OR FOUR QUESTIONS AT THIS POINT.

SO I WILL START WITH ONE THAT COMES THROUGH WITH A FEW PEOPLE ABOUT WHAT YOUR SATISFY SAYING OF THE STABILITY OF THE BINDER S THERE ANYTHING THAT PEOPLE CAN DO WITHIN THEIR COLLECTIONS TO HELP WITH THE STABILIZATION OF THAT?

>> ABSOLUTELY.

SO THE RESEARCH SHOWS THAT IF YOU CAN PLACE THOSE ITEMS INTO COOLER AND DRYER TEMPERATURES, THAT WOULD WILL A HUGE DIFFERENCE IN PROMOTING LIFE EXPECTANCY E SO THE MORE HOT AND HUMID THAT THEY SAY, THE WORSE OFF THE ITEMS WILL BE.

THERE ARE SOME QUESTIONS ABOUT WHETHER OR NOT YOU CAN RESERVICE IT AND WE WILL -- ITCH WILL GET INTO THAT.

MIGHT AS WELL AS JUST ANSWER IT NOW, .

THE.

THERE HAVE BEEN DISCUSSIONS ABOUT WHETHER OR NOT YOU CAN REVERSE THIS DETERIORATION PRIOR TO REFORMATTING, AND THERE ARE SORT OF UNTESTED METHODS OR I SHOULD SAY THEY'RE NOT PEER REVIEWED METHODS OF BAKING TAPES WHICH CAN BE DONE AT HIGHER TEMPERATURES AND LOW HUMIDITY. I TEND TO THINK THIS IS A VERY DANGEROUS YOU PROCESS, ESPECIALLY IF YOU'RE DEALING WITH VINEGAR SYNDROME.

I THINK IT WOULD BE BETTER SIMPLY TOES DID INDICATE THE TAPE OR LOWER THE HUMIDITY OF THAT TAPE A GREAT DEAL PRIOR TO REFORMATTING [DESSICATIENG] ALONG THING YOU CAN DO IS MAKE SURE YOUR TAPES ARE CLEAN PRIOR TO REFORMATTING AND THAT RECONSOLIDATES THE SURFACE OF THE TAPE.

THE CLEANING I'M THINKING OF IS ONE WHERE YOU'RE WIPING THE SURFACE OF THE TAPE AGAINST A NONWOVEN POLYESTER FABRIC, AND MOST GOOD-QUALITY REFORMATTING COMPANIES OWN THESE TAPE CLEANING MACHINES.

THEY PROBABLY LOOK LOT LIKE -- WELL THEY WERE ORIGINALLY A -- SO THOSE TWO THINGS, LOWERING THE TEMPERATURE AND HUMIDITY FOR THE LONG-TERM, DEFINITELY LOWERRERING THE TEMPERATURE AND DEFINITELY LOWERRERING THE HUMIDITY PRIOR TO REFORMATTING AND THEN CLEANING THE TAPE.

THOSE ARE THREE SORT OF WAYS OF

DEALING WITH THESE TOUCHES.
IF UP HAVE A VERY WHAT HAPPENED
TAPE YOU HAVE TO TAKE IT TO A
PROFESSIONAL BECAUSE YOU
WOULDN'T HAVE THE EQUIPMENT OR
THE EXPERTISE ON STAFF, MY GUESS
IS, AND I THINK THAT IS
SOMETHING TO KEEP IN MIND.
AS YOU IDENTIFY TAPES THAT ARE
QUITE DAMAGED.

>> GRAI. ANOTHER QUESTION CAME
THROUGH THROUGH BY MARCIA.
AND IT'S REALLY WHAT YOU'RE
TALKING U.K. ABOUT WITH THE
ANALOG AND THE MATERIAL DEALERS
AND SHE SAID IS SO ANALOG NEEDS
TO BE REFORMMATED BUT NOT DPIJ
TALL?
CAN YOU CLARIFY THAT?

>>

>> YES.

THANK YOU.

I REALIZED AS I WAS GOING DOWN
THAT PATH, IT COULD BE
CONFUSING.

WHEN YOU'RE MOVING FROM ANNAL
ALONG TO DIGITAL SO, YES, THE
ANNAL HOG TAPE WILL HAVE TO BE
FED INTO A SYSTEM WHERE IT IS
GOING TO BE CONVERTED INTO 1s
AND 0s.

THAT DIGITAL AUDIO TAPE IN
PARTICULAR IS A PARTICULAR TYPE
OF FORMALITY.

YOU NEED TO FEED IT INTO THE
COMPUTER BUT YOU DON'T WANT TO
DO ANY CLAIMING TO ITS NATIVE
FORMATTING.

YOU SIMPLY WANT TO RENAME IT AS
A WAVE FILE.

AND THAT SYSTEM, AND YOU HAVE TO
DO IT IN AN AUDIO SOFTWARE
SYSTEM.

BUT IT CAN BE DONE.

AND THAT'S REALLY -- YOU JUST
DON'T WANT TO TRY TO BUMP UP THE
RESOLUTION OR BUMP IT DOWN FOR

THAT MATTER.

IT'S NATIVELY 1644.

DOES THAT HELP?

I'M SURE IT DOES.

WE HAVEN'T HAD ANY OTHER
QUESTIONS POP UP ON THE SIDE
THERE.

SO HERE IS ANOTHER QUESTION
RELATED TO MAGNETIC MEDIA.
A LOT OF US END UP WITH THINGS
IN OUR COLLECTION THAT DON'T
HAVE IDENTIFYING MARKERS ON
THEM.

SARAH FROM SOUTH HAMPTON UK SAYS
IF THERE ARE NO CLUES ON THE BOX
OR RELEASING HOW DO YOU TELL IF
IT'S AUDIO OR VIDEO, ONE INCH OR
TWO INCH.

>> I SYMPATHIZE IF YOU DON'T
HAVE ANY CLUES ON THE BOX AND
YOU HAVE TO LOOK IN CONTEXT.
YOU HOPE IT'S IN RELATIONSHIP
WITH A NUMBER OF OTHER ELEMENTS.
IS IT IN A BOX WITH A BUNCH OF
MOTION PICIAL FILMS?
THEN MAYBE IT'S THE AUDIO TRACK
TO THAT FILM.

IS IT PART OF A LARGE COLLECTION
OF VIDEOTAPES THEN IT'S PROBABLY
THE MASTER OF A VIDEOTAPE: LOOK
FOR SOMEBODY SEXUALING IPS ON
IT, WHICH IS INCHES PER SECOND.
LOOK FOR THING TOES THAT CLUE
YOU IN TO -- COLOR WILL BE A
GOOD GIVE AWAY THAT IT'S A
VIDEO, UNLESS IT'S A RECORDING
OF AUDIO OR INSTRUMENTAL THING
CALLED COLOR.

BUT DO YOU KNOW WHAT I MEAN?
THIS IS WHERE YOU HAVE TO LOOK
AT THE CONTEXTUAL CLUES.
THERE IS A WAY THAT YOU CAN
ACTUALLY DEVELOP OUT THE TRACKS
ON THE -- ON THE AUDIO OR
VIDEOTAPE.

THERE'S SOMETHING CALLED FERA
FLUID.

YOU CAN BUY IT FROM EDUCATIONAL CHEMISTRY STORES WHERE YOU CAN DO EXPERIMENTS.

THIS IS A FLUID THAT YOU PAINT ON TO A PORTION OF THE TAPE, AND IT WILL ACTUALLY MAKE THE TRACKS COME OUT.

YOU WILL BE ABLE TO SEE THEM. AND IT WON'T DAMAGE THE TAKE. ESPECIALLY SINCE YOU'RE GOING TO DO IT -- IF YOU LOOK AT THE TRACKS AND THEY'RE UP AND DOWN IT'S MUCH MORE LIKELY THAT IT'S AN AUDIO TAPE THAN IF IT'S AT AN ANGLE.

IF IT'S AT AN INGLE IT'S A HELICAL RECORDING AND MORE LIKELY TO BE VIDEO.

ALL OF THESE TYPES OF TRACKS ARE ACTUALLY PUBLISHED AS PICTURES IN DIFFERENT ARTICLES THAT ARE -- OR DIFFERENT STANDARDS, BOOKS, THAT ARE PROSED BY THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS.

AND THE SOCIETY OF EMOTION PICTURE AND TELEVISION ENGINEERS IS SMPTE AND THEY HAVE BEEN THE ORGANIZATION CREATING THE STANDARDS FOR WHAT THE TRACKS SHOULD LOOK LIKE AND THAT'S ONE OF THE DISCERNING WAYS THAT YOU CAN TELL THE DIFFERENCE IN YOUR ONE INCH AND TWO INCH AUDIO AND VIDEO, IF YOU HAVE TO GO TO THAT EXTENT.

>> HERE 1 ANOTHER ONE FROM MARCIA IN HONOLULU.

AND PEOPLE ARE WONDERING IF YOU HAVE ANY TIPS OAR IDEAS FOR THE BEST WAY TO GO ABOUT CLEANING LPS.

>> YES.

THERE ARE FANTASTIC RESOURCE RESOURCIVES AT THE LIBRARY OF CONGRESS ON DEVELOPING DISK-CLEANING SOLUTION AND HOW

PROPERLY TO DO IT.
AND I BELIEVE IT'S IN ONE OF MY
RESOURCE SLIDES.
I'M GOING TO TRY TO -- LET ME
LOOKING FOR IT IN MY PAPER COPY
HERE.
IF FOR SOME CRAZY REASON I
DIDN'T PIT ANYTIME THERE, I
WOULD SUGGEST I PUT IT ON THE
WEB SITE AFTERWARDS.
I THINK -- WELL, I DON'T SEE IT
IN MY LIST.
HOWEVER, I WILL PUT IT UP IN THE
FOLLOW UP OF THIS PRESENTATION.
I WILL DEFINITELY PUT IT UP ON
THE WEB SITE, THE LIBRARY OF
CONGRESS PEE -- RECIPE FOR DISK
CLEANING AND I WANT TO PROMOTE A
BOOK THAT WAS WRITTEN IN 1959
AND PUBLISHED UNDER THE AUSPICES
OF THE LIBRARY OF CONGRESS OF
THE UNITED STATES BY PICKETT AND
LEMCO AND THAT IS ON MY LIST OF
RESOURCES AND IT HAS PRETTY
COMPREHENSIVE DISCUSSION OF HOW
TO CLEAN YOUR DISKS.
AND YOU KNOW, SAFE WAYS TO DO
THINGS.
EVERYBODY HAS A TECHNIQUE.
IT'S ALL IN THE WRIST, I
SUPPOSE, BUT IT HAS -- LESS IS
MORE, AND BEING VERY OBSERVANT
AS YOU'RE DOING IT IS THE KEY
THING.
SO THAT WOULD BE THE BETTER
THING THAN ME TRYING TO DESCRIBE
IT.
>> GREAT.
SO I THINK THE MORE RESOURCES
THE BETTER.
THIS IS A HUGE TOPIC THAT WE
CAN'T POSSIBLY COVER IN AN HOUR
AND A HALF COMPREHENSIVELY.
WELL, ANOTHER QUESTION, I THINK
WE'RE ALWAYS ALL WORRIED ABOUT
OUR COLLECTIONS GOING UP IN
FLAMES, SO CONNIE FROM FORT

SMITH AND -- ARE WORRIED ABOUT HOW SAFE THESE ARE, WHETHER IT'S THE CYLINDERS OR THE DISKS.

>> WELL I DON'T WANT TO BE TOO ABUNDANTLY CAUTIOUS ON THIS.

THERE, TO MY KNOWLEDGE, ARE THERE AUDIO COLLECTIONS HAVE GONE UP IN FLAMES BECAUSE THEY MAY SUPER-A SMALL COMPONENT OF CELLULOSE NITRATE IN THEM.

THIS IS UNLIKE FILM COLLECTIONS WHERE CELLULOSE NITRATE FILM COLLECTIONS ARE PROBLEMATIC AND NEED TO BE STORED ACCORDING TO THE NATIONAL NEUROMUSCULAR PROTECTION STANDARDS.

THESE MATERIALS DO NOT FALL IN THE NATIONAL FIRE MEDIA CODE SO YOU CAN BREATHE A SIGH OF RELIEF.

YOU SHOULD OF COURSE HAVE THESE MATERIALS PROPERLY STORED.

THEY SHOULD BE IN THE PROPER ENVIRONMENT.

THEY SHOULD BE HANDLED APPROPRIATE LIMIT THEY SHOULD BE SEGREGATED FROM ONE ANOTHER, IN SLEEVES OR SOME SORT OF HANDLING CONTAINERS ARE, AND WE SHOULD HOPE THAT YOU HAVE A MACE WHERE THEY'RE STORED WHERE THERE IS SOME SORT OF SPRINKLER SYSTEM. PUT A SPRINKLER SYSTEM IS WHAT YOU NEED.

YOU DON'T NEED A SPECIAL ANYTHING LIKE THAT.

SO THE FLAMABILITY IS -- I MEAN ALL OF THESE MATERIALS WILL BURN, AND THEY'RE PLASTICS AND RESINS, SO THEY HAVE A VARIETY OF FLASHPOINTS AND SO FORTH BUT THEY'RE NOT AT THE LEVEL OF CONSPICUOUS RETURNS THAT YOU WOULD HAVE WITH A GUN COLLECTION.

SO FOLLOWING YOUR BEST PRACTICE FOR ARC OF A LIBRARY MUSEUM,

SPRINGS LING AND MAINTENANCE IS WHERE YOU SHOULD GO WITH THESE MATERIALS.

>> AND DO THEY HAVE ANY ETHE TO THE MATERIALS THAT MIGHT BE STORED NEAR NEEM?

>> RIGHT.

IF YOU HAVE AUDIO TAPE WHICH HAS -- IS MADE OF CELLULOSE ACETATE AS ITS BASE YOU WILL HAVE VINEGAR SYNDROME WHERE THE ACIDIC ACID OR THE CELLULOSE ACETATE BASE IS DETERIORATING AND OFF GASSING THIS MILD BUT OBNOXIOUS ASEATIC ACID VAPOR, AND THAT CAN BE PROBLEMATIC FOR A NUMBER OF REASONS.

IT CAN BE VERY UNPLEASANT TO YOU AND YOU CO-WORKERS SO YOU WANT TO SEGREGATE THOSE MATERIALS.

THOSE ARE MATERIALS FOR REFORMATTING AS SOON AS POSSIBLE AND HAVING SOME KIND OF MICROCHAMBER SLEEVE OR SOMETHING THAT WILL SEQUESTER SOME OF THE FUMES.

PUTTING THEM IN COLD STORAGE AS YOU WILL HEAR IN THE NEXT SECTION.

YOU CAN'T FREEZE THE MEDIA AS YOU WILL HEAR ABOUT, BUT THE COOLER WE CAN GET THEM THE BETTER OFF.

AND ACID IN THE AIR IS, OF COURSE, A CATALYST FOR OTHER TYPES OF PROBLEMS, RANGING FROM, WITH YOUR PHOTOGRAPHS, HAVING -- IT WILL AUTO CATEGORIZE DETERIORATION THERE AND PAPER RESPONDS TO ACIDS IN THE AIR, SO, YES, THERE'S GOING TO BE A PROBLEM WITH THERE BEING OFF-GASSING.

YOU NEED TO DELIBERATELY DO WHAT YOU CAN TO ADDRESS THAT AS AN ISSUE.

>> WELL, I THINK THAT'S A

PERFECT SEGWAY INTO YOUR NEXT SECTION SO WE WILL SAVE ANY QUESTIONS UNTIL OUR NEXT BREAK IN THERE.

>> THANK YOU VERY MUCH.

WE WILL GO THROUGH PRESERVATION AND HANDLING OF THESE MATERIALS. HOUSING, ENVIRONMENT, AND TREATMENT ISSUES AND MANY OF THESE THINGS I MENTIONED BEFORE. SO I THINK THE MOST IMPORTANT THINGS ABOUT HOUSING IS TO CONSIDER PRAGMATIC SOLUTIONS TO YOUR NEEDS SO YOUR SLURND YOUR CYLINDERS NEED TO BE UP RIGHT. IF YOU CAN KEEP YOUR ORIGINAL CONTAINERS THAT'S GREAT BUT THE ORIGINAL CONTAINERS SHOULD BE WITHIN HANDLING CONTAINERS AND THERE'S SOMETHING ELSE AROUND THAT BOX AND YOU WANT TO HANDLE THESE MATERIALS ONLY AT THE EDGES, PREFERABLY WITH A GLOVE OR WITH VERY CLEAN HANDS. WE HAVE HAD THE DEBATE ABOUT WHETHER OR NOT WEARING GLOVES IS A GOOD IDEA.

FOR SOME OF US, OUR TACTILE SENSE IS MUCH BETTER IF WE DON'T HAVE A GLOVE ON AND THAT MIGHT BE IMPORTANT.

THE DIFFERENCE IN DROPPING AND NOT DROPPING AN OBJECT SO THAT IS AN IMPORTANT CONSIDERATION. YOUR DISKS SHOULD BE UP RIGHT AND ON EDGE UNLESS THEY ARE BROKEN IN WHICH CASE YOU'RE GOING TO HAVE TO PUT THEM FLAT INTO SOME KIND OF SINK MAT HOUSING AND IT'S USEFUL TO PUT THEM IN REPLACEMENT SLEEVES. YOU PROBABLY WASN'T TO KEEP -- USUALLY THERE'S IMPORTANT INFORMATION ON OLDER SLEEVES SO YOU WANT TO PHOTOCOPY THAT AND HAVE THAT INFORMATION AROUND. SOMETIMES THE CARDBOARD SLEEVE

HAS INTRINSIC VALUE AS WELL, AND YOU WANT TO KEEP THAT BUT IT DOESN'T NECESSARY APPLY HAVE TO BE WITH THE ORIGINAL DISK.

YOU CAN PUT THEM IN GOOD POLYETHYLENE SLEEVES AND THERE'S ALL SORTS OF CLEVER SOLUTIONS PEOPLE HAVE COME UP WITH. MAGNETIC MEDIA SHOULD BE UP RIGHT.

THEY SHOULD BE IN A BOX, UP RIGHT, AND IF YOU POSSIBLY CAN, IF YOU'RE NOT GOING TO BE ABLE TO REFORM MAT THESE MATERIALS, TAKING THEM OFF OF THEIR ORIGINAL ALSLOTTED HUBS AND PUT LIZING THEM ON UNSLOTTED HUBS IS USEFUL BECAUSE WHAT HAPPENS IS THEY START TO WARP OUTSIDE OF THE SLOTS.

PLASTIC CONTAIN REHEARSE FINE, RATHER THAN CARDBOARD OR PAPER BOARD BECAUSE PAPER BOARD AND CARDBOARD BEGINS TO DETERIORATE AND CREATES A LOT OF DUST.

AND YOU WANT TO REMOVE THE RECORD TAB IF IT'S AN AUDIO CASSETTE OR CARD TRIJ.

SO YOU WANT TO REMOVE THAT SO IT CANNOT BE AUTOMATICALLY RECORD.

THERE ARE OTHER ISSUES ABILITY MAKING SURE THOSE MATERIALS ARE NOT PLACED NEAR MAGNETIC FIELDS WHICH MAKES A LOT OF SENSE.

MAGNETIC FIELDSES, IT'S UNLIKELY THAT THEY DASH PASSING MOTOR OF, SAY, A VACUUM CLEANER WOULD CAUSE A MATERIAL TO BE ERASED, BUT IT'S BETTER TO BE SAFE THAN SORRY SO I PUT THEM SORT OF ABOVE THE FLOOR AND A FAR AWAY FROM MOTORS AND THAT KIND OF THING.

IN GENERAL, YOUR STORAGE BOXES SHOULD BE MADE OF GOOD QUALITY MATERIALS.

YOU DON'T WANT TO HAVE STORAGE

CONTAINERS THAT WILL RETAIN A
LARGE STATIC CHARGE.

NOW THERE WAS A QUESTION THAT
WAS SORT OF PREPOPULATED ABOUT
STATIC AS AN ISSUE, AND LET ME
JUST SAY, THAT WHILE THESE
MATERIALS SHOULD BE STORED IN A
COOL AND DRY ENVIRONMENT, WHEN
THEY ARE REFORM MATTED AND THEY
ARE BEING EXPOSED TO A LOT OF
FRICTION, THAT REFORMATTING
SPACE SHOULD HAVE HIGHER
HUMIDITY AND BE AT 50 PERCENT
RELATIVE HUMIDITY OR 55 PERCENT
RELATIVE HUMIDITY SO AN ITEM
THAT IS BEING REFORMATTED AT THE
PLACE WHERE IT'S BEING
REFORMATTED, THE HUMIDITY SHOULD
BE HIGHER AND THAT WILL PREVENT
THE STATIC DISCHARGE FROM
OCCURRING.

THIS IS A CHART THAT IS HELPFUL
AS YOU'RE TRYING TO FIGURE OUT
WHERE THESE MATERIALS SHOULD
LIVE WITHIN YOUR BUILDING OR
WHAT SHELF.

LOOK AT THE WAIT AND SPACE
REQUIREMENTS FOR THINGS LIKE
THESE DISKS.

EACH ITEM FOR AN LP, IT WEIGHS
ABOUT HALF POUND BUT YOU CAN GET
OF 6 OF THEM, AND ON A THREE --
SORRY, A THREE-FOOT SHELF IT CAN
BE 101 POUNDS, AND THAT'S A LOT
OF WEIGHT SO YOU WANT TO
CONSIDER WHERE YOU'RE PUTTING
THESE MATERIALS.

IF YOU GO DUNE TO THE TWO INCH
QUAD WHICH WOULD BE THE SAME
THING AS A TWO INCH REEL TO REEL
AUDIO TAPE, THEY CAN BE
SOMEWHERE AROUND 25 POUNDS,
PRETTY HEAVY.

YOU CAN ONLY GET AROUND FOUR
ITEMS PER FOOT, AND ON A
THREE-FOOT SHELF IT'S GOING TO
BE OVER 200 POUNDS SO YOU WANT

TO CONSIDER WHERE YOU'RE GOING
TO PUT THESE MATERIALS AND
HOW -- WHAT YOUR REQUIREMENTS
ARE.

GLRNTLE OK.

SO THE ANSI, THE NATIONAL -- THE
AMERICAN NATIONAL STANDARDS
COMMITTEE BUT IT'S ACTUALLY ALSO
AN ISO, INTERNATIONAL STANDARDS
COMMITTEE, RECOMMENDATION FROM
IT913.6 AND IT RECOMMENDS COOL
AND DRY.

THEY HAVE AN EXPECTATION THAT
COMMERCIAL NONPERMANENT
MATERIALS CAN BE AT ONE LEVEL
WHEREAS PERMANENTLY VALUABLE
MATERIALS SHOULD BE AT ANOTHER.
NOTICE IT SAYS THEY NEVER
RECOMMEND BELOW 46 DEGREES
FAHRENHEIT AND THE REASON IS,
THERE ARE SOME BRANDS OF
MANUFACTURE OF AUDIO MATERIALS
AND MAGNETIC MEDIA NEERLS IN
PARTICULAR, THAT HAVE DIFFERENT
FREEZE AND LIQUIDIZATION
TEMPERATURES FOR THE LUBRICANTS
THAT ARE IN THE BINDER.

IF THESE ITEMS WERE TO BE FROZEN
OR BELOW 46° FAHRENHEIT, THEY
MIGHT SEPARATE OUT FROM THE
BINDER AND YOU WOULDN'T WANT
THAT TO HAPPEN AND THAT'S WHY
THESE MATERIALS ARE NOT SUPPOSED
TO BE FROZEN.

UNFORTUNATELY I DON'T KNOW WHICH
BRANDS THOSE ARE AND SO WE JUST
HAVE TO GO ON ANECDOTAL EVIDENCE
THAT THEY SHOULDN'T BE FROZEN
AND YOU WANT TO MINIMIZE LIGHT
EXPOSURE, HEAT SOURCES,
ESPECIALLY FOR THINGS LIKE
CYLINDERS AND THOSE EARLY DISKS
AND VIBRATIONS, ESPECIALLY IF
YOU HAVE THINGS LIKE GLASS OR
FRAGILELY ADHERED SELL OUT LOWS
NITRATE LACQUER FILM ON YOUR
DISKS.

HERE IT IS. HERE IS THE LIBRARY
OF CONGRESS CLEANING SOLUTION
AND TECHNIQUES.

I THOUGHT IDEA IT ON HERE.
SO FOR CYLINDERS, ALL YOU'RE
GOING TO NEED TO DO IS HAVE A
SOFT BRUSH AND A VACUUM.
YOU'RE NOT GOING TO PLY THE
VACUUM DIRECT LIP TO THE
SURFACE.

YOU'RE GOING TO HAVE A BARRIER
BETWEEN YOUR CYLINDER AND YOUR
VACUUM AND HAVE IT ON A RIO STAT
SO IT WOULD BE AT THE LOWEST
SECTION AND YOU WOULD SET IT UP
VERY MUCH LIKE AN OBJECT.

SO FOR CONSERVATION -- YOU WOULD
BE DOING THIS KIND OF DUSTING, I
WOULD SAY YOU WOULD ONLY DO THIS
PRIOR TO REFORMATTING.

THIS IS NOT A REQUIRED ACTIVITY.
THE PROBLEM WITH DUST, OF
COURSE, ON A CYLINDER OR
ANYTHING THAT IS SOFT IS THAT IT
COULD BECOME EMBEDDED IF THAT
ITEM WAS -- IF IT GOT TOO WARM
BUT YOU'RE NOT GOING TO PUT YOUR
ITEMS INTO WARM SPACES AND
EXPOSE THEM TO DUST.

SO MY FEELING IS TOUCH IT AS
LITTLE AS YOU CAN.

FOR DISKS THERE'S A
COMPREHENSIVE CLEANING SOLUTION
AND DISCUSSION OF HOW TO DO THE
CLEANING AT THIS LIBRARY OF
CONGRESS WEB SITE, WITH SOME
INFORMATION ABOUT THAT.

AND THEN FOR TAPES, BOTH
CASSETTE AND FOR REEL TO REEL,
THERE'S AN AUTOMATIC, CLOTH
CLEANING SYSTEM THAT CLEARS
DEPOSITS FROM THE SURFACE OF
TAPE.

IT USE'S NONWOVEN POLYESTER TO
CLEAN THE SURFACE OF THE TAPE.
IT'S A MACHINE.

I HAVE SEEN IT FOR SALE AT SOME

COMPUTER DATA COMPANIES BUT
ESSENTIALLY WHAT IT DOES IS IT
RUNS THE TAPE PAST THE
STATIONERY CLOTH STATIONS AND
WIPES THE SURFACE FREE.

ALONG THING YOU CAN DO IF YOU
HAVE SURFACE DIRT ON THE EDGES
OF IT IS DWHREUK VACUUM IT MUCH
AS YOU WOULD WITH A CYLINDER.
I DON'T SUBSCRIBE TO THE IDEA OF
BAKING TAPES BUT THERE'S A
DITCHES OF OPINION.

I BELIEVE THE DESICCATION THAT
IS BRINGING THE LOCAL HUMIDITY
DOWN TO 10 PERCENT RELATIVE TO
ITS ENVIRONMENT IS PROBABLY A
BETTER THING TO DO, AND YOU CAN
DO THAT BY SETTING UP SMALL
DESICCATION CHAMBERS USING SALTS
AND YOU CAN GET FURTHER ADVICE
ON THAT SORT OF THING.

THAT'S A SINGULAR TREATMENT KIND
OF DECISION THAT YOU WOULD NEED
TO MAKE AS YOU ARE REFORMATTING
AN ITEM.

IN THE MEANTIME, COOLER AND
DRYER.

THAT'S THE BEST THING TO DO FOR
YOUR MAGNETIC MEDIA.

SO THOSE ARE REALLY FAST.

I ACTUALLY GOT THROUGH THAT
PRETTY FAST.

SO I CAN GO AHEAD AND WE CAN
TAKE MORE QUESTIONS ABOUT
ENVIRONMENT AND HOUSING.

>> WELL WE HAVE MORE QUESTIONS
FOR YOU, SARAH.

>> OK.

>> THERE ARE A FEW QUESTIONS
THAT CAME UP ABOUT STORING JUST
DIFFERENT STORAGE METHODS THAT
YOU WENT THERE.

FOR CASSETTE, BOTH MARRY AND
TISSUE HAD QUESTIONS ABOUT
STORAGE.

ONE, CAN YOU LEAVE THE CASSETTE
TAPES IN THEIR ORIGINAL

CONTAINER OR WOULD YOU RECOMMEND THAT OR NOT OVERALL?

AND THAT, NO MATTER WHAT CONTAINER THEY'RE IN, SHOULD THEY JUST BE PUT ON THE SHELF OR BE BOXED OR WHAT IS THE BEST THING TO DO.

>> ABSOLUTELY, YES.

LEAVE THE ORIGINAL CONTAINER UNLESS THAT CONTAINER IS GOING TO DAMAGE THE TAPE.

BUT THAT ORIGINAL CONTAINER USUALLY HAS IMPORTANT INFORMATION.

NOW, SOMETIMES THE ORIGINAL CONTAINER IS FALLING APART IN WHICH CASE YOU SHOULD PHOTOCOPY THE CONTENTS AND GET A NEW CONTAINER BUT I WOULD RATHER SPEND YOUR MONEY, I WOULD RATHER THAT YOU SPEND YOUR MONEY REFORMATTING THAT ITEM THAN BUYING A LOT OF NEW SUPPLIES.

BUT FOR THE SAKE OF KEEPING THESE ITEMS AWAY FROM LIGHT AND DUST, I WOULD PLACE THE ORIGINAL ITEMS, THE ORIGINAL CONTAINER INTO HANDLING CONTAINERS SO THAT YOU HAVE THEM BOAKSED, GROUPS OF THEM BOXED TOGETHER.

AND THAT'S ESPECIALLY TRUE FOR CASSETTE TAPES.

IT IS NOT AT ALL PRACTICAL FOR TWO INCH AUDIOTAPES.

IT'S NOT AT ALL PRACTICAL TO TRY TO BOX UP LARGE MATERIALS BUT THESE SMALL CASSETTES, THESE SMALL RECORDINGS, HANDLING CONTAINERS ARE VERY USEFUL FOR MOVING THEM AROUND WITHIN YOUR ARCHIVES LIBRARY MUSEUM COLLECTION.

BUT I WOULD DEFINITELY SAY THAT, REPLACING ORIGINAL -- THE ORIGINAL BOXES IS A MATTER OF PRIORITY AND COST AND PERSONNEL. SO IF -- YOU CAN GET THEM INTO A

LARGER OVERSIZED CONTAINER,
THAT'S BETTER THAN SPENDING A
LOT OF TIME REPLACING ORIGINAL
CONTAINERS.

>> GREAT.

ALL ABOUT PRACTICALITY HERE.

>> IN A RELATED QUESTION,
MARGARET FROM SAN PEDRO
CALIFORNIA SAID FOR SHELVING
MATERIALS SHE KNOWS THAT METAL
OF COURSE IS BEST BUT WHAT IF
YOU'RE IN A SMALLER INSTITUTION
AND ARE STUCK WITH WOOD SHELVES
SEALED WITH POLYURETHANE,
SHOULD YOU PAN AND I CAN DO A
LOT OF FUNDRAISING TO REPLACE
THEM OR IS IT OK?

>> WELL IN CALIFORNIA I'M ALSO
CONCERNED A LITTLE BIT ABOUT
EARTHQUAKES SO I WOULD PUT MY
MONEY INTO EARTHQUAKE PROOFING
THING'S AS WELL.

I THINK THAT THE WOOD IS
PROBABLY SORT OF FINE.

IT IS A MATTER OF PRIORITIES.
BUT I WOULD CUT SOME AMOUNT OF
BARRIER.

IT COULD BE MYLAR OR SOMETHING
THAT YOU COULD PUT ON TOP OF THE
SHELF TO PROVIDE AN ADDITIONAL
BARRIER BETWEEN THE POLYURETHANE
TAKEN AND THE WOOD.

SOME TYPES OF WOODS HAVE SUCH
HIGH RESINS, EVEN WHEN SEALED,
THAT THEY -- THEY CAUSE
PROBLEMS.

SO YOU KNOW IF YOU CAN DO THAT
ADDITIONAL BIT OF HOUSE KEEPING
THAT WOULD BE GREAT.

THEN IF YOU HAVE SOME SORT OF
BARRIER, OF HIGHLY, A SHELF
LINER THAT IS MYLAR, SOMETHING
LIKE THAT, THEY WILL SLIDE OFF
THE SHELF EASIER AS WELL.

SO THERE'S -- THAT'S SOMETHING
TO THINK ABOUT.

>> GREAT.

>> SO RELATED TO STORING THINGS
IN COOLER, DRIER ENVIRONMENTS,
SAY YOU DO HAVE THINGS STORED IN
COOL STORAGE; THERE ANY
PRECONDITIONING TIME OR ANYTHING
LIKE THAT PRIOR TO TRANSFER
DIGITIZATION?

THAT'S FROM JOYCELYN IN
BALTIMORE.

>> GREAT.

IF THEY ARE -- IF YOUR MATERIALS
ARE STORED IN A COOL ENVIRONMENT
WHERE, GOING FROM YOUR COOL
ENVIRONMENT INTO YOUR WORK ROOM
YOUR GOING TO BE PASSING DEW
POINT, THEN YOU ABSOLUTELY HAVE
TO ACCLIMATE YOUR NEERLS AND FOR
THOSE PEOPLE WHO ARE VERY
FAMILIAR WITH FILM AND COLD
STORAGE YOU KNOW WHAT I'M
TALKING ABOUT BUT FOR EVERYBODY
ELSE THIS MEANS IF YOU'RE GOING
FROM A 40 DEGREES ROOM OR SAY
IT'S 46 DEGREES, GOING FROM
46 DEGREES TO WORK ROOM WHICH IS
72° I THINK YOU MIGHT BE PASSING
DEW POINT SOMEWHERE AT THE
60-DEGREE LEVEL SO YOU WANT TO
PUT THOSE MATERIALS INTO A VAPOR
PROOF SEALED PACKAGE.

IT CAN BE A COOLER THAT YOU
WOULD USE FOR, YOU KNOW, AN ICE
COOLER OR WHATEVER, PUT THOSE
MATERIALS IN, BRING THEM OUT
INTO THE WARM UP ROOM, AND YOU
WANT TO LET IT WAIT FOR AT LEAST
SIX HOURS.

OF COURSE IT DEPENDS.

THERE ARE MATHEMATICAL FORM HAD
AS FOR THIS.

WHY NOT LET IT WAIT FOR 24 HOURS
BEFORE YOU OPEN UP THE
CONTAINER, THE PACKAGING AND IT
SHOULD HAVE WARMED UP TO ROOM
TEMPERATURE AND YOU WON'T HAVE
THIS PROBLEM OF CONDENSATION.
ONCE ITS IN THAT SPACE, IT'S

STILL GOING TO HAVE SOME
ACCLIMATION TIME.

MY GUESS IS THAT IT WOULD
PROBABLY BE BETTER JUST TO NOT
IMMEDIATELY POP IT INTO THE PLAY
BACK MACHINE.

WE HAVE DONE WHOLE VARIETY OF
THINGS WITH OUR MATERIALS.

USUALLY THERE'S A LITTLE BIT OF
A LINE BEFORE THAT ITEM GETS
INTO THE PLAY BACK MACHINE.

SO IT'S NOT GOING TO HURT IT IF
IT'S IN A COUPLE OF DAYS, TWO
WEEKS OR WHATEVER.

THE POINT IS YOU WANT TO
ACCLIMATE IT FROM YOU'RE GOING
INTEREST AN AREA THAT COOL
ENOUGH THAT YOU WILL BE CROSSING
DEW POINT.

>> GREAT.

>> WELL, WE DO HAVE MORE
QUESTIONS BUT I KNOW WE ONLY
HAVE 15 MINUTES LEFT, SO -- WE
WILL LET YOU GO AND DO YOUR LAST
SECTION.

>> OK.

SO HERE ARE IMPORTANT RESOURCES.
I HAD PLEASURE OF WORKING WITH
LAURA WHO HAS BEEN ASKING THESE
THESE QUESTIONS ON A VIDEO THAT
COMES OUT OF THE CONSERVATION
CENTER, CCHAA.ORG, EDUCATION
VIDEOS, THEY HAVE A RACE AGAINST
TIME, WHOLE SECTION ABOUT AUDIO,
VIDEO AND FILM THAT YOU CAN
CHECK OUT.

AND THEN THERE ARE THESE FIVE
BOOKS WHICH I THINK ARE GREAT.
VERY HELPFUL.

>> YOU CAN LOOK A THAT.
IF I DIDN'T -- BECAUSE I DIDN'T
COVER THAT IN TODAY'S
DISCUSSION, SO ENJOY THOSE
SPREAD PRIORS, PICTURE AND LET
ME CO-WHICH IS THE CLASSIC.
JOHN VAN BOGART WHICH YOU'RE
GOING TO GO OUT AND PYRITE AFTER

THIS SEMINAR AND A MANUAL OF
SOUND ARCHIVE ADMINISTRATION
FROM 1990 WHICH IS VERY USEFUL.
BUT READ ALL OF THIS WITH A
GRAIN OF SALT: TECHNIQUES ARE
CHANGING ALL THE TIME AND THAT'S
WHY YOU WANT TO BE INVOLVED.
INTERNATIONAL ASSOCIATION OF
SOUND AND AUDIOVISUAL ARCHIVES.
THE AMERICAN INSTITUTE FOR
CONSERVATION, THE SOCIETY OF
AMERICAN ARCHIVISTS FOR
ROUNDTABLE AND THE AUDIO
ENGINEERING SOCIETY.
THESE ARE ALL GREAT PLACES TO
LEARN ABOUT YOUR AUDIO
MATERIALS.

AND I WOULD NOT -- I THINK IT'S
APPROPRIATE TO TALK TO
ENTHUSIASTS AND HOBBYISTS
BECAUSE THEY KNOW -- THEY CARE
DEEPLY ABOUT THESE MATERIALS AND
SOMETIMES IT'S FOLKLORE AND
TIMES IT'S TRULY USEFUL
INFORMATION AND THEY CAN HELP
WITH CONTEXT AND YOU DON'T KNOW
IF IT'S ONE INCH OR TWO INCH
AUDIO AND VIDEO.

MAYBE THAT HOBBYIST CAN TELL
YOU.

AND YOU WOULD SERVE MORE
NATIONAL VENDORS COULD BE
EXTREMELY HELPFUL IN HELPING YOU
STRATEGIZE ABOUT YOUR
COLLECTIONS AND THEY HAVE SEEN A
LOT OF DIFFERENT FORMATS AND A
LOT OF MATERIALS SO I HOPE
RECOMMEND THEM.

SO HERE ARE THINGS I WANTED TO
EXPOSE YOU TO: BECAUSE THERE
THIS BRIEF DISCUSSION YOU HAVE
NOT HAD A CHANCE TO DELVE INTO
YOUR OWN DISCUSSION IS AND
THAT'S WHERE THE RUBBER HITS THE
ROAD KIND OF THING.

SO HERE ARE A NUMBER OF SURVEYS.
LET ME SAY, FIRST, ALL OF THE

SURVEYS I'M GOING TO TELL YOU ABOUT, THEY'RE ONLINE. THEY'RE FREE.

SO YOU CAN DO A LOT OF GREAT THINGS WITH THESE SURVEYS, OR THEY WILL TELL YOU ABOUT OTHER SURVEYS OR OTHER RESOURCES. THE SOUND SAVINGS IRL HERE. PUBLICATION WAS PRODUCED BY LIBRARY CONSERVATORS AND WHAT IT DID, IT LOOKED AT THESE ARE THE THINGS THAT YOU OUGHT TO HAVE IN ANY SURVEY THAT YOU CITE FOR YOURSELF.

CALIPER FROM CALIFORNIA. IT IS -- THERE ARE TWO PARTS OF IT.

ONE IS FOR PAPER BASED AND ONE IS AUDIOVISUAL COLLECTION. IT'S AN ONLINE DATABASE TOOL. YOU NEED TO UNDERSTAND HOW TO CREATE RANDOM BASED SAMPLES. ONCE YOU CROSS THAT HURDLE, YOU CAN TO THIS SURVEY AND IT CREATES VERY NICE MANAGEMENT REPORTS, YOU CAN GO AND SHOW YOUR PEOPLE WHO HAVE THE MONEY MONEY AND THE DECISION-MAKING POWER.

THE AVDB, CREATED IN 2008 BY COLUMBIA UNIVERSITY, THIS PROBABLY RIGHT-OF-WAYS A LITTLE BIT OF SOPHISTICATED IN TERMS OF YOUR OWN KNOWLEDGE LEVEL, AND IT ALSO REQUIRES YOU TO BE IN TOUCH WITH A CURATOR BECAUSE IT ASKS FOR THE VALUE OF -- FROM A CURATORS STANDPOINT, AND THAT'S A LEGAL INTERESTING CONCEPT.

AS FAR AS I'M CONCERNED, A GOOD SURVEY SHOULD INCLUDE THREE COMPONENTS.

THE VALUE, THE INTELLECTUAL OR INTRINSIC OR WHATEVER VALUE YOU CAN ASSOCIATE WITH YOUR COLLECTION, THE VALUE IS IMPORTANT.

USE STATISTICS.

HOW ARE THESE GOING TO BE USED.
MAYBE THEY'RE NOT BECAUSE
THEY'RE OBSOLETE FORMAT BUT YOU
WANT TO UNDERSTAND YOUR USE
STATISTICS AND FINALLY YOU WANT
TO KNOW WHAT THE RISK OF YOUR
COLLECTION IS, SO YOU NEED TO
HAVE THOSE THREE COMPONENTS WHEN
YOU LOOK AT YOUR COLLECTION, YOU
WANT TO LOOK AT VALUE USING
RISK.

SO THIS PARTICULAR SURVEY IS A
GOOD ONE FOR THINKING ABOUT
VALUE.

THE FACET TOOL OUT OF THE
INDIANA UNIVERSITY WHICH HAS A
TREMENDOUS AUDIO ARCHIVE, YOU
CAN SEE THAT IT IS ONLY FOR
AUDIO RECORDINGS.

IT DOES REQUIRE SOME PLAY BACK.
IF YOU DON'T HAVE PLAY BACK
MACHINES YOU MAY NOT BE ABLE TO
DO THIS.

BUT IT'S ALSO A REALLY WELL
DOCUMENTED AND A GREAT TOOL.
THEN THERE ARE VIPERS AND IT HAS
FOR BOTH AUDIO AND VIDEO, ALL OF
THESE SYMPTOMS HAVE
DOCUMENTATION SO IF YOU DOWNLOAD
TOOLS.

WOULD YOU BE ABLE TO RUN IT
YOURSELF?

>> THERE'S THE AUDIO ASSESSMENT
PROGRAM WHICH WAS CREATED BY I
BELIEVE AN IMLS GRANT AT THE
UNIVERSITY OF ILLINOIS IN YOUR
PAN ACHAMPAGNE AND THIS IS AN
INTERESTING TOOL, ESPECIALLY
BECAUSE IT GIVES YOU THESE
IN-DEPTH POP UP TUTORIALS SO IF
YOU HAVE A MYSTERY FORMAT, YOU
CAN LOOK AT PICTURES AND
PICTURES AND PICTURES OF VIDEOS
AND AUDIO MATERIALS AND IT WILL
HELP YOU FIND OUT WHAT YOUR
ITEMS ARE AND YOU CAN DO ITEM

LEVEL OR RANDOM SAMPLE AND IT'S AN INTERESTING TOOL AS WELL. SO HERE ARE DATA POINTS THAT YOU WOULD WANT TO CONSIDER.

IF YOU'RE LOOKING AT YOUR OWN AUDIO MATERIALS, YOU WANT TO LOOK AT YOUR HOW WAS KEEPING MATERIALS.

WHAT ARE YOUR DUST AND DIRT. IS THERE DELAMINATION, SOME KIND OF MOLD YOU SOAPY FILM, BREAKAGE, HOW GOOD IS THE INFORMATION ON THE LABEL?

IF YOU DON'T HAVE THE INFORMATION ON THE LABEL, THAT AUTOMATICALLY SAYS TO ME THAT IT'S NOT AS VALUABLE.

I REALIZE THAT THAT SEEMS PERHAPS, IN SOME WAYS, KIND OF MEAN TO THAT COLLECTION, BUT I GOT A LOT OF OTHER COLLECTIONS AND THEY ALL HAVE GOOD LABELS AND I WOULD RATHER WORK ON THOSE.

THINK ABOUT YOUR ENTIRE ENVIRONMENT.

WHAT IS THE QUALITY OF THE HOUSING?

WHAT IS THE QUALITY OF THE AIR. HAVE YOU REDUCED THE POLLUTION THAT COMES INTO THE SPACE?

IS THE TEMPERATURE LOW?

IS THE HUMIDITY THE PROPER SPACE?

AND THEN IF YOU HAVE PRAYED BACK THESE MATERIALS, WHAT KIND OF THINGS ARE YOU HEARING?

ARE YOU HEARING DISTORTION?

ARE YOU HEARING POPS?

ARE YOU HEARING PROBLEMS THAT YOU DON'T THINK ARE APPROPRIATE?

THIS IS WHERE BECOMING A CONNOISSEURSHIP OF HOW FAR THINGS ARE SUPPOSED TO SOUND.

YOU CAN'T HAVE THE EXPECTATION THAT A RECORDING, AN INSTANTANEOUS RECORDING MADE IN

1927 IS GOING TO HAVE THE SAME FIDELITY OF A RECORDING RECORDING OF THAT WAS REMASTERED THAT IS A 2-INCH, 342 TRACK TAPE THAT WAS CREATED IN THE 1990'S.

IT JUST ISN'T GOING TO HAVE THE SAME SOUND FIDELITY AND IT SHOULDN'T.

THOSE ARE THE KINDS OF THINGS YOU NEED TO KNOW ABOUT YOUR COLLECTION, ESPECIALLY FOR MAGNETIC MEDIA, THERE ARE FEATURES THAT YOU CAN LOOK AT ON YOUR TAPES TO HELP YOU UNDERSTAND WHAT THE PROBLEMS R IS THE CASSETTE OR THE REEL TO REEL, IS IT PROPERLY SPWHOWND IS IT AT EITHER END OF THE TAKE UP REEL OR IN THE CASE OF REEL TO REEL IS IT PROPERLY ROUND OR IS THERE ANY POPPING OR SPOKING OR STRANDS OF AUDIE TAPE COMING OUT OF THE TAPE PACK?

IS THERE A -- IS THERE A RECORD TAB ON THE CASSETTE?

IF THERE IS AND YOU WOULD TAKE IT OFF, THAT COULD BE AN INDICATION OF HOUSEKEEPING, THAT IT WASN'T WELL CARED FOR AND THEREFORE IT MAY HAVE DETERIORATION ISSUES.

THEN YOU MIGHT WANT TO CONSIDER WHETHER OR NOT THE TAPE BRAND IS CONSIDERED A POOR QUALITY TAPE BRAND, YOU KNOW, AN AMPEX TAPE WILL BE A GOOD QUALITY TAPE TYPICALLY.

A 3M TAPE IS TYPICALLY GOING TO BE A GOOD QUALITY TAPE.

BUT LITTLE LEPRECHAUN TAPE PROBABLY ISN'T.

AND THAT IS JUST -- YOU KNOW, SIT A CHEAP BRAND OF TAPE OR NOT?

SO I HAVE ALREADY MENTIONED THESE THREE PRINCIPLES, VALUE, USE AND RISK.

AND I WILL GO INTO THEM QUICKLY.
WHEN YOU THINK ABOUT VALUE, AND
THESE ARE IDEAS THAT ARE BROUGHT
UP, MELON FOUNDATION HAS PUT A
LOT OF RESOURCES IN TO HELPING
ARCHIVE COME UP WITH SURVEY
TOOLS AND VALUE IS ONE OF THE
THINGS THEY HAVE BEEN VERY
INTERESTED IN AND THESE FOUR
THINGS COME FROM THE MELON
SURVEY.

HOW UNIQUE IS THE MATERIAL?

AND HOW COMPLETE IS IT?

IS IT ONE TAPE BUT YOU KNOW
THERE WERE 80 TAPES?

IS IT THREE CYLINDERS AND THOSE
ARE THE ONLY THREE CYLINDERS
KNOWN NOT WORLD?

HOW DEEP IS THE COLLECTION?

IS IT VERY DEEP, ITS GUESS FOR
YEARS AND YEARS AND YEARS OR
JUST A SNAPSHOT?

AND WHAT KIND OF RESEARCH TRENDS
ARE IMPORTANT AND WHAT ARE
PEOPLE INTERESTED IN?

YOU NEED TO KNOW YOUR OWN
COLLECTIONS FROM THAT STANDPOINT
AND THOSE ARE THE FEATURES OF
VALUE.

YOU HAVE TO DECIDE WHAT
CONSTITUTES LOW, MODERATE AND
HIGH USES.

I DON'T HAVE TO TELL YOU WHAT
THAT IS.

WE HAVE OUR OWN METRICS FOR THAT
BUT YOU CAN SAY, LOOK, IF AN
AUDIO TAPE IS USED ONCE EVERY
FIVE YEARS, IN OUR COLLECTION,
THAT'S LOW USE.

THAT MIGHT BE HIGH USE FOR
SOMEBODY ELSE.

AND I CAN'T DISH WON'T TELL YOU
WHAT THAT IS, BUT YOU MAKE
YOU -- YOU DRAW THOSE LINES, AND
THEN YOU NEED TO FIGURE THAT.

LIKE I SAY, YOU HAVE TO TRACK
THE USE.

AND FINALLY YOU WANT TO LOOK AT THE CONDITION, THE ON EXCELLENCE AND WHETHER OR NOT IT IS CONSIDER ADD UNIQUE RECORDING OR THE FIRST RECORDING OR IF IT'S AN ELEMENT OF A FINAL PRODUCT.

AND THOSE THINGS ALL HAVE TO DO WITH RISK.

THE MORE -- THE MORE RARE IT IS IN TERMS OF ITS FORMAT, THE MORE PROBLEMATIC THE CONDITION, THEN THE HIGHER THE RISK.

AND THAT IS IT FOR RESOURCES AND SURVEYS, OR FOR ANYTHING ELSE.

SO I'M HAPPY TO TAKE MORE QUESTIONS.

>> OK.

SARAH THIS IS JENNY.

I'M GOING TO QUICKLY PULL OVER THE HOMEWORK ASSIGNMENT FOR TODAY'S WEBINAR AND THIS LINK IS ALSO ON THE COURSE WEB SITE, AND THEN I'M ALSO GOING TO ASK ANYONE LOGGED IN AS A GROUP, SO ONE PERSON LOGGED IN, WILL YOUR GROUP LEADER GO AHEAD AND MARK DOWN EVERYONE WATCHING WITH YOU AND IF YOU LOGGED IN TODAY WITH YOUR FIRST AND LAST NAME, WE HAVE GOT YOU.

DON'T WORRY ABOUT FILLING THIS OUT.

IT LOOKS LIKE WE HAVE A COUPLE OF MINUTES.

I'M GOING TO GO AHEAD AND A ASK YOU.

I KNOW YOU HAD A QUESTION OPEN HOLD I THINK WE HAVE TIME FOR IT.

>> WE WILL LOB ONE MORE AT YOU, SARAH.

>> A TOPIC NEAR AND DEAR TO MY HEART AND SHOULD BE TO EVERYBODY OUT THERE, I THINK IS SOMEONE ASKED WHAT DO YOU FEEL THE MOST IMPORTANT CONSIDERATIONS ARE FOR

THIS MEDIA IN TERMS OF A
DISASTER RECOVERY SITUATION?
>> THAT IS SUCH A GOOD QUESTION.
WHICH ONE IS MOST VULNERABLE?
IT DEPENDS OWN WHAT THE DISASTER
IS, AS WELL AS HUE YOU'VE
PRIORITIZED THESE MATERIALS.
ACETATES ARE INCREDIBLY
VULNERABLE.

IF I DIDN'T GET THAT ACROSS TO
YOU, THOSE PROBABLY ARE GOING TO
BE THE MOST DAMAGED IN AN
EMERGENCY.

I THINK YOU NEED TO HAVE MADE A
DECISION WITHIN YOUR COLLECTIONS
ABOUT WHAT RED LIGHT HIGHEST
PRIORITIES FOR SALVAGE.

AND, OF COURSE, IF YOU LOOK AT
THE HERITAGE FOUNDATION,
DISASTER WHEEL THEY TALK ABOUT
PRIORITIZING WITHIN MAGNETIC
MEDIA AND OTHER TYPES OF FILM
AND VIDEO.

AND PHOTOS.

SO I THINK -- IF WHAT YOU HAVE
GOT IS A PROBLEM WITH, YOU KNOW,
IF THINGS HAVE BEEN SUBMERGED,
THEN YOU DO HAVE TO DRY THESE
MATERIALS OUT QUICKLY.

IF THINGS HAVE BEEN SORT OF --
IF THERE'S SMOKE DAMAGE YOU
PROBABLY CAN WAIT, WHEREAS WOULD
PAPER YOU MAY NOT BE PAYABLE TO
WAIT BECAUSE IT DO SOINGS
FURTHER IN.

IT COULD SINK FURTHER IN.

I THINK THE BIGGEST ISSUES WITH
THESE MATERIALS IS JUST THE SLOW
DISASTER, THE OBSOLESCENCE, THE
DIFFICULTY OF REFORMATTING THESE
MATERIALS AND FINDING THE
RESOURCES SO IT'S AN
INTERESTING -- IS IT A ONE-TIME
DISASTER?

OR BIGGEST PROBLEM WITH
AUDIOVISUAL MATERIALS IS THAT
THERE'S A HUGE VALUE OF IT AND

ONLY A VERY, VERY, VERY SMALL
PORTION OF IT IS BEING SAVED.

>> THANK YOU VERY MUCH.

IT LOOKS LIKE WE'RE JUST OUT OF
TIME.

I WILL REMIND EVERYONE, OUR
THIRD WEBINAR IN THIS SEAR REENS
IS WEDNESDAY AT 2:00, SAME PLACE
AND TIME.

THANK YOU SARAH SO MUCH AND
THANK YOU FOR OUR AUDIENCE FOR
LOGGING IN TODAY.

>> THANK YOU.