THE DISCUSSIONS AND HERE ARE TWO
BY A GOOD DIFFERENT AND
COLLEAGUE OF MINE WHOA IS A
SCIENTIST IN PARIS AND HAS
WRITTEN ELOQUENTLY ON A VARIETY
OF ISSUES ASSOCIATED WITH FOF
GRAPHIC CONSERVATION.
TWO OF HIS MORE POPULAR BOOKS
ARE FEATURED HERE.
BOTH ARE AVAILABLE FROM THE
GETTY AND I PARTICULARLY
RECOMMEND PHOTOGRAPHS OF THE
PAST.
FOR THOSE OF YOU WHO ARE SIGNING
IN FROM OTHER PARTS OF THE
WORLD, THIS BOOK HAS BEEN
TRANSLATED I BELIEVE IN BOTH
SPANISH AND FRENCH.
BUT IT'S A WONDERFUL
INTRODUCTION TO THE VARIETY OF
PHOTOGRAPHIC MATERIALS THAT
YOU'RE LIKELY TO ENCOUNTER IN
YOUR COLLECTION AND VERY USER
FRIENDLY, LOTS AND LOTS OF
IMAGES, CHARTS AND GRAPHS THAT I

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THINK YOU WILL FIND VERY HELPFUL.
SIMILARLY, THE OTHER BOOK THAT YOU SEE HERE, PREVENTIVE CONSERVATION PHOTOGRAPHIC COLLECTION IS A MORE DETAILED ASSESSMENT OF ISSUES SURROUNDING COLLECTIONS CARE, PROPER ENVIRONMENTAL CONDITIONS, EMERGENCY PREPAREDNESS, THE DEGRADATION OF FILM, MANY, MANY TOPICS THAT WILL BE MOST USEFUL TO YOU.
SO IF YOU CAN PURCHASE THESE, I THINK YOU'LL FIND THEM TO BE A VERY GOOD ADDITION TO YOUR PERSONAL LIBRARY.
TWO OTHER BOOKS.
ONE LOOKING AT PHOTOGRAPHS BY GORDON BALDWIN AT THE GETTY. GORDON WAS A CURATOR AT THE GETTY MUSEUM FOR MANY, MANY YEARS AND THIS BOOK IS JUST A VERY NICE BOOK FOR THE PUBLIC THAT SORT OF SPEAKS TO, AS IT SAYS HERE, A GUIDE TO TECHNICAL TERMS AND ADDRESSES ALL THE DIFFERENT PROCESSES THAT YOU'RE LIKELY TO ENCOUNTER IN A PHOTOGRAPHIC COLLECTION
BEGINNING WITH THE DAGUERREOTOYPE TYPE IN 1839 TO PRESENT DAY.
AND THIS BOOK IS JUST A NICE REFERENCE FOR UNDERSTANDING BASIC INFORMATION ON WHAT IS AN ALBUMEN PRINT, WHAT IS A SILVER GELATIN PRINT.
AND FINALLY CONSERVATION OF PHOTOGRAPHS WAS WRITTEN BY MY COLLEAGUE AND MYSELF WHERE WE EDITED IT, WE DIDN'T WRITE IT. JAY GUTIERREZ AND I WORKED ON THIS.
THIS IS A COMPILATION OF IMPORTANT ARTICLES THAT HAVE BEEN WRITTEN ABOUT THE FIELD, PARTICULARLY HISTORICAL ARTICLES THAT DEAL WITH CONSERVATION TREATMENT, PREVENTIVE CONSERVATION, THE BEGINNING OF THE FIELD OF PHOTOGRAPHIC CONSERVATION, ET CETERA.
SO YOU MIGHT FIND THIS OF USE AND INTEREST IN TERMS OF PHILOSOPHY AND ETHICS AND THE EVOLUTION OF THE FIELD OF PHOTOGRAPH CONSERVATION BUT IT IS NOT AS SPECIFIC ON ISSUES RELATED TO PREVENTIVE CONSERVATION OR COLLECTIONS CARE.
I will also direct you to various web sites. This is one, the regional alliance for preservation, this is a collaboration or a combination of conservation centers across the nation who work with a variety of materials including tote graphic materials and they've assembled their resources into in this one site. You can search on photographs and emergency response and pull up lots of photographs that they have produced through their own center. I'll refer to these as we go but this is a general website it is that you may not be familiar with and I urge you to go on line so just to start moving through with these materials, er that great treasure and enormously value to believe all of us and they are vulnerable to deterioration and require our input and our work and it's important to always sort of step back for a minute when you're
Talking about photographic materials and why they're important to really think about what is it about these materials that we're trying to preserve because if we can articulate why why this work is so important, we're better positioned to raise funds, to develop concrete collection care plans to always be thinking about the big picture and, of course, we know photographic materials in our collection enhance scholarship and knowledge, inspire discourse in all different ways. Engage public audiences and this of course, is vitally important and we'll be talking about this toward the end of the sessions. What can we do collectively to engage the public in our work? They document history. People connect to them. This is an example of an early color photograph from 1959, as you can see. We'll talk more later about the stability of this material, but you can see in this particular
PHOTOGRAPH THAT THE BORDERS ARE YELLOWED AND THE IMAGE IS SOMEWHAT FADED.
THIS IS BECAUSE COLOR PHOTOGRAPHY IS COMPRised OF ORGANIC DYES AND THESE DYES FADE IN THE DARK AND THEY FADE IN THE LIGHT.
AND HERE YOU SEE A HAND-COLORED DAGUERREOTYPE.
I'LL BE TALKING ABOUT THIS PROCESS VERY SOON AND THIS IS AN EARLY PHOTOGRAPHIC PROCESS INTRODUCED IN 1839 IN FRANCE AND AS FANTASTIC AS THESE EARLY PHOTOGRAPHIC PROCESSES WERE MANY PEOPLE STRUGGLED WITH THAT THEY WERE MONOCHROMATIC AND YOU WILL SEE HAND COLORED IMAGINES AS YOU SEE HERE AND THESE COLLECTIONS HAVE THE CAPACITY TO CONNECT US GLOBALLY THROUGH THIS WEBINAR AND THEY CELEBRATE GREATNESS THROUGH PART RATES IT'S IMPORTANT TO THINK ABOUT THE PHOTOGRAPHS YOU'RE RESPONSIBLE FOR, WHY THEY'RE IMPORTANT AND WHAT YOU NEED TO DO TO ENSURE THEIR LONG-TERM PRESERVATION I'VE GATHERED A FEW
Representative samples here to illustrate further these materials certainly are endangered. As you see with the image of the young boy on your left, this is an early black and white silver gelatin photograph similar to the photograph we saw earlier of Paul McCartney but this one is certainly earlier in time period but it also has faded more significantly. So this image was likely more black and white in color. It's become browner in time and it certainly has faded more extensively around the outer edges. It's mounted onto a secondary support and you can almost see that it looks like it's beginning to lift. It almost looks like it's been exposed to water damage of some kind. This fading of the silver image is a common problem we'll be talking about quite a bit and the need for all of you to think
ABOUT WHAT YOU CAN DO TO MITIGATE AGAINST THIS DAMAGE BY CONTROLLING THE ENVIRONMENT.
A LOT OF THE FADING OF THE SILVER IMAGE IS MOST LIKELY CAUSED BY EXPOSURE TO FLUCTUATING ENVIRONMENTAL CONDITIONS, HIGH RELATIVE HUMIDITY CONDITIONS, FOR EXAMPLE.
ON THE RIGHT SIDE OF THE SLIDE YOU SEE AN EXAMPLE OF SOMETHING THAT'S MUCH MORE CONTEMPORARY. THIS COLOR PHOTOGRAPH, CHROME CHROMOGENIC COLOR PHOTOGRAPH BUT IT'S ALSO FADED AND DISCOLORED. IN THIS CASE IT'S COMPRISED OF CYAN, MAGENTA AND YELLOW DYES AND THESE DYES HAVE FADED AT DIFFERENT RATES, THE PHOTOGRAPH APPEARS YELLOWED AND PERHAPS A LITTLE BLUE OR CYAN IN COLOR AS THE MAGENTA GENERALLY A DYE MAY HAVE FADED MORE SERIOUSLY.
I'M GOING TO HOPE THIS LITTLE POINTER IS NOT GOING TO GET IN YOUR WAY BUT I'LL KEEP IT ON MY SCREEN SO I CAN USE IT.
WE JUST RECEIVED THIS IMAGE
THINK THIS MORNING AND I DECIDED TO PUT IT INTO OUR PRESENTATION BECAUSE THIS IS A DETAIL OF A PHOTOGRAPH YOU CAN SEE PROVIDED BY MARCIA ANDERERSON AND WHAT'S INTERESTING IS THIS ALMOST LOOKS LIKE A DRAWING BUT, IN FACT, THIS MOST LIKELY IS PHOTOGRAPHIC.

IT'S WHAT WE CALL A CRAYON PORTRAIT, OR CHARCOAL ENLARGEMENT.

AT THE TURN OF THE CENTURY MANY PHOTOGRAPHERS EXPERIMENTED WITH TAKING AN IMAGE AND ENLARGING IT ON TO PAPER WHICH MAY BE MOUNTED THEN ON TO CANVASS AND STRETCHED ON A STRAINER AND THIS VERY FAINT IMAGE WAS THEN HEAVILY EMBELLISHED WITH CHARCOAL OR CRAYON OR SOMETIMES EVEN OIL PAINT. SOMETIMES THESE MATERIALS WERE VARNISHED AND LOOKED VERY MUCH LIKE PAINTINGS. SOMETIMES AS YOU SEE HERE THEY LOOK MORE LIKE A DRAWING. THEY DO TEND TO LOOK PHOTOGRAPHIC WHEN YOU LOOK AT THE EYES AND OTHER FEATURES BUT
THEY ARE HEAVILY EMBELLISHED AND THIS, TOO, IS A PHOTOGRAPH OF SOME SORT.
WE'RE GOING TO TALK OVER THE COURSE OF THE NEXT FIVE SESSIONS ABOUT PHOTOGRAPHIC NEGATIVE MATERIALS.
THIS IS A GLASS PLATE NEGATIVE IN RELATIVELY GOOD CONDITION, ACTUALLY, FROM ONE OF THE COLLECTIONS THAT HAS SIGNED INTO THE WEBINAR.
AND IN THIS CASE YOU CAN SEE THE IMAGE MATERIAL, WHICH IS BLACK AND WHITE HERE BUT ALSO YOU NOTICE WHEN YOU LOOK AT THE OUTER EDGES THAT THIS GLASS PLATE NEGATIVE HAS ALSO BEGUN TO FADE AND DISCOLOR IN MUCH THE SAME WAY THAT THE PHOTOGRAPHIC PORTRAIT OF THE YOUNG BOY HAS FADED AS WELL.
THIS IS DETERIORATION OF THE SILVER IMAGE CAUSED BY EXPOSURE TO POOR ENVIRONMENTAL CONDITIONS.
THIS IS YET ANOTHER CHALLENGE THAT MANY OF US FACE.
NITRATE FILM INTRODUCED IN 1889 IN WHICH CASE WE HAVE NOT ONLY
DEGRADATION OF THE SILVER IMAGE BUT DETERIORATION OF THAT CELLULOSE NITRATE SUPPORT AS WELL.
AND IN 1929 WE BEGIN TO SEE THE INTRODUCTION OF CELLULOSE ACETATE FILM. A CLEAR TRANSPARENT FILM THAT REPLACED CELLULOSE NITRATE FILM AND WHILE IT DIDN'T DETERIORATE IN THE SAME WAY YOU CAN SEE HERE THAT ONE OF THE MAJOR CHALLENGES WITH THESE FILM-BASED MATERIAL WHICH IS REALLY DOMINATE COLLECTIONS YOU'RE LIKELY TO HAVE THESE MATERIALS IF YOU HAVE FILM THE POST-1935. IN THIS CASE THE CELLULOSE ACETATE FILM HAS SHRUNK QUITE SIGNIFICANTLY. THE GELATIN BINDER HAS NOT. AND YOU GET THIS CHANNELING WHICH YOU SEE HERE THROUGHOUT THE FILM. SO THIS IS CELLULOSE ACETATE DEGRADATION. JUST A SAMPLE THAT'S PROVIDED BY ONE OF THE PARTICIPANTS IN THE WEBINAR. PLEASE CONTINUE TO SEND IN
IMAGES WHERE YOU CAN. MAYBE IT MAKES IT A BIT MORE PERSONAL. BUT IT SHOWS YOU THE RANGE OF THE KINDS OF PROBLEMS THAT YOU'RE ENCOUNTERING IN YOUR COLLECTIONS THAT ARE VERY OF THE KINDS OF PROBLEMS THAT WE CERTAINLY SEE AROUND THE WORLD. SO BEFORE I START WITH EARLY DIRECT POSITIVE PROCESSES, LET ME TURN THIS OVER TO KRISTEN JUST TO SEE IF WE HAVE ANY GENERAL QUESTIONS THAT SHE THINKS I MIGHT BE ABLE TO ANSWER AT THIS POINT IN TIME.

>> THANK YOU, DEBBIE. ACTUALLY WE HAD A FEW AND THEY MAY BE QUESTIONS THAT YOU'LL BE ANSWERING OR TALKING ABOUT FURTHER ANOTHER WEBINAR. IF SO, JUST TELL US. BUT ROBERT RYALS IN SOUTH CAROLINA WONDERED IN A MIXED ARCHIVE COLLECTION IS IT PREFERABLE TO SEPARATE THE DIFFERENT PROCESSES? SO BLACK-AND-WHITE, COLOR FROM PAPER-BASED MANUSCRIPT COLLECTIONS?
BECAUSE IT SEEMS LIKE THE
PRESERVATION AND CONSERVATION OF
NEEDS OF PHOTOGRAPHS AND THOSE
OTHER PAPER BASED MATERIALS ARE
DIFFERENT.
FOR EXAMPLE, THEY MIGHT NEED
COLD STORAGE OR OTHER LONG-TERM
STORAGE.
I THINK HE'S ASKING BECAUSE IN
AN ARCHIVE COLLECTION THEY LIKE
TO GROUP THINGS BY SUBJECT.
DO YOU WANT TO HANDLE THAT
QUESTION NOW?
>> SURE.
LET ME HANDLE IT NOW AND IT'S
SOMETHING THAT WE'LL TALK ABOUT
REALLY THROUGHOUT THE NEXT
COURSES, NEXT COUPLE OF
LECTURES.
IDEALLY THERE ARE CERTAIN
PROCESSES THAT SHOULD BE
SEPARATED OUT AND YET YOU DO
HAVE TO BE COGNIZANT AND AWARE
OF HOW YOUR COLLECTION IS BEING
USED.
I WOULD SAY THAT IT IS VERY
IMPORTANT TO SEPARATE OUT
NEGATIVE MATERIALS FROM PRINT
MATERIALS.
WE JUST SAW VERY QUICKLY AS I
WENT THROUGH SOME OF THE IMAGES THAT WERE SHARED WITH US FROM SOME OF THE PARTICIPANTS THE CHALLENGES ASSOCIATED WITH CELLULOSE NITRATE AND CELLULOSE ACETATE FILM AND CELLULOSE NITRATE FILM AS IT DETERIORATES IT GIVES OFF NITRIC ACID WHICH CAN AFFECT JOINING MATERIALS AS WELL.
AND SO IT IS IMPORTANT TO SEPARATE OUT CELLULOSE NITRATE AND CELLULOSE ACETATE FILM. AT THE SAME TIME GLASS-PLATE NEGATIVES BECAUSE OF THEIR WEIGHT AND FRAGILITY SHOULD BE SEPARATED AND STORED IN ACID-FREE BOXES.
I'LL TALK ABOUT HOW TO STORE THESE MATERIAL BUS I WOULD SAY SORT OF BOTTOM LINE SEPARATE OUT A NEGATIVE FROM PRINT, SEPARATE OUT FILM-BASED COLLECTIONS FROM GLASS-PLATE COLLECTIONS AND THAT'S SIMPLY BECAUSE OF THE DIFFERENT DEGRADATION PROBLEMS ASSOCIATED WITH THESE MATERIALS. IF THE FILM-BASED MATERIALS CAN BE PUT INTO COLD STORAGE THEN IT'S NOT NECESSARY TO SEPARATE
OUT NITRATE FROM ACETATE FILM. THOSE CAN ALL GO INTO COLD STORAGE.
IF NOT, IT MAY BE IMPORTANT TO SEPARATE OUT CELLULOSE NITRATE FILM FOR HEALTH AND SAFETY REASONS AS WELL.
AND IN TERMS OF COLOR AND BLACK AND WHITE WHICH LOOKS LIKE ROBERT HAS ALSO ASKED ABOUT, AGAIN, AS WE GET INTO THIS IN MUCH MORE DETAIL-- AND I'M REALLY EXCITED THAT THIS IS A FIVE-PART SERIES AND I DON'T NEED TO DO THIS IN UP WITH HOUR AND A HALF-- BUT AS WE GET INTO THIS IN A BIT MORE DETAIL YOU'LL CERTAINLY LEARN THAT ONE OF THE CHALLENGES WITH COLOR MATERIALS IS THESE ORGANIC DYES FADE IN THE DARK AND THEY FADE IN THE LIGHT AND THE ONLY WAY TO MITIGATE AGAINST THAT DETERIORATION IS COLD STORAGE. SO IF IT'S POSSIBLE TO ESTABLISH A COLD STORAGE VAULT OR FREEZER, FROST-FREE REFRIGERATOR OR SOME SORT THAT'S WHERE COLOR MATERIALS SHOULD BE HOUSED. FOR THAT REASON IT'S VALUABLE TO
SEPARATE THEM OUT.
IF COLD STORAGE IS NOT AN OPTION
IT'S NOT MANDATORY THAT COLOR
MATERIALS BE SEPARATED FROM
OTHER SILVER-BASED PROCESSES
SUCH AS THE ALBUMEN OR SILVER
GELATIN PRINT.
SO SOME OF THIS IS COMMON SENSE.
SOME OF THIS IS BASED ON FORMAT.
SOME OF THIS IS BASED ON THE
SUPPORT IN WHICH YOU FIND THESE
MATERIAL IT IS.
BUT THERE ARE SOME GUIDELINES
AND I HOPE THAT THAT WAS HELPFUL
TO SOME EXTENT.
>> I THINK THAT'S GREAT, DEBBIE.
I GUESS ALSO THERE'S A QUESTION
FROM KATHY AND SHE HAD A
QUESTION ABOUT COPPER PLATE
NEGATIVES.
THE METAL PLATES THEMSELVES WITH
THE PRINT OR NEGATIVE ON THEM.
AND GRETA GAVE HER A GOOD ANSWER
TO THAT, THAT YOU JUST NEED TO
KEEP THEM A DRY, STABLE
ENVIRONMENT.
BUT MAYBE AS WE'RE JUST STARTING
OFF TODAY YOU COULD ANSWER THIS
QUESTION BUT ALSO TALK ABOUT
WHAT YOUR COURSE IS GOING TO
INCLUDE.
WE, FOR EXAMPLE, WON'T BE GETTING INTO AUDIO-VISUAL MATERIALS BUT WE WILL HAVE A COURSE ON THAT NEXT FALL AND YOU WON'T BE GETTING INTO DIGITAL PHOTOGRAPHY SO MAYBE IN ANSWERING KATHY'S QUESTION YOU CAN MENTION THAT AS WELL. AND THAT'S OUR LAST QUESTION FOR NOW.
>> OKAY, GREAT, YEAH. KRISTIN'S EXACTLY RIGHT IN THIS PARTICULAR COURSE WE'RE GOING TO FOCUS ON PHOTOGRAPHIC MATERIALS, PRINTS AND NEGATIVES. I WON'T BE DISCUSSING -- MAKE SOME REFERENCE TO DIGITAL MATERIALS BUT NOT AN EXTENSIVE REFERENCE BUT WE WON'T BE ADDRESSING AUDIO-VISUAL MATERIALS. BUT WE'LL TRY TO ADDRESS EVERYTHING ELSE AND BECAUSE OF THIS CHAT FORMAT CERTAINLY I WELCOME QUESTION. I'M SORT OF RESERVING THE LAST WEBINAR TO ADDRESS FUND-RAISING AND ADVOCACY A BIT BUT ALSO TRY-TO AND DRILL DOWN THE
QUESTIONS THAT YOU ALL HAVE AND SOME OF THE CHALLENGES YOU'RE FACING IN YOUR COLLECTIONS. THIS ISSUE OF COPPER PLATES IS AN INTERESTING ONE. IT WILL DAGUERREOTYPE, WHICH I'M GOING TO TALK ABOUT IN A MOMENT IS ONE OF THE EARLIEST PHOTOGRAPHIC PROCESSES. BUT I WONDER IF KATHY HAS A COLLECTION THAT LOOKS LIKE COPPER PLATES ARE ENGRAVING THAT WERE USED FOR PRINTING PROCESSES SO IT'S AN ENGRAVED IMAGE ON A COPPER PLATE. AND GRETA IS RIGHT ABOUT THE NEED TO ENSURE ENVIRONMENT IS STABLE. THAT'S THE KEY, HONESTLY, IF WE ONLY HAD THREE MINUTES FOR THIS SEMINAR, WHICH, THANK GOODNESS IS NOT THE CASE. WE WOULD NEED TO FOCUS ENTIRELY ON ENVIRONMENTAL CONTROL BECAUSE THAT'S REALLY WHAT DRIVES PRESERVATION AND YOU NEEDED TO DO AS MUCH AS YOU CAN IN YOUR COLLECTIONS TO LIMIT EXPOSURE TO HIGH RELATIVE HUMIDITY CONDITIONS. I'M SORRY ABOUT THAT TRAIN.
IT'S GOING TO BE COMING THROUGH HERE ONCE IN A WHILE AND -- (LAUGHS) THERE IS NOTHING I COULD DO ABOUT THAT KRISTEN, CAN I KEEP ON GOING?

>> YES, PLEASE DO.

>> I'LL KEEP STOPPING FOR QUESTIONS AS I NEED TO AND TRYING TO MONITOR THE QUESTIONS AND I'M GREATFUL FOR GRETA TO ANSWERING THESE AS WE GO THROUGH.

WHEN WE TALK ABOUT PHOTOGRAPHIC COLLECTION WES DIVIDE THEM INTO DIFFERENT CATEGORIES AND ONE IS THE EARLY DIRECT POSITIVE PROCESS WHICH YOU SEE AN EXAMPLE OF THE AMBER TYPE PROCESS WHICH WAS INTRODUCED IN THE 1850s. IT'S PHOTOGRAPH ON GLASS, A SILVER IMAGE A PHENOMENON CELLULOSE NITRATE BINDING. AND AMBROTYPES LIKE TINTYPES WHICH WERE INTRODUCED IN THE 1850s WERE VARNISHED AND MANY AMBROTYPES ARE IN THESE DECORATIVE CASES THAT YOU SEE HERE.

THE AMBROTYPE, THE
DAGUERREOTYPE AND THE TINTYPE ARE REFERRED TO AS DIRECT POSITIVE PROCESSES BECAUSE THEY ARE ONE OF A KIND.

IN THE CASE OF THIS AMBROTYPE, THIS BEAUTIFUL PORTRAIT, ACTUALLY, IN VERY, VERY GOOD CONDITION WHICH YOU SEE HERE THE PHOTOGRAPHER TOOK THIS PIECE OF GLASS, COATED WITH AND IMMERSED IN THE A SOLUTION OF SILVER NITRATE TO FORM LIGHT SENSITIVE AND HELD IT UP IN THE AIR FOR A BRIEF PERIOD OF TIME AND PLACED THAT GLASS PLATE IN THE CAMERA AND EXPOSED IT TO LIGHT.

THESE EARLY PHOTOGRAPHIC PROCESSES IN THESE DECORATIVE CASES WERE MADE IN A VARIETY OF DIFFERENT WAYS.

THE ONE OF THE POPULAR DIRECT POSITIVE PROCESSES THAT YOU MAY HAVE IS THE DAGUERREOTYPE INTRODUCED IN 1839, POPULAR IN THE UNITED STATES UNTIL 1865. SOME OF THESE DATES YOU'LL SEE IN MY LECTURE ARE DATES OF POPULARITY.

SO THAT YOU MAY, IN FACT FIND DAGUERREOTYPES AFTER 1865 BUT
THEY TENDED TO DOMINATE THE MARKET IN THE UNITED STATES DURING THIS TIME PERIOD. I REALIZED THAT YOU HAVE SIGNED IN FROM DIFFERENT PARTS OF THE WORLD AND RECOGNIZED THESE ARE DATES OF POPULARITY IN THE UNITED STATES SO THEY VARY A BIT AROUND THE WORLD BUT YOU WON'T FIND DAGUERREOTYPES PRIOR TO 1839 WHEN IT WAS INTRODUCED TO THE WORLD IN FRANCE BY DAGUERRE. IT'S ON A SILVER PLATED COPPER SUPPORT AND THE FINAL IMAGE IS A GOLD MERCURY SILVER AMALGAM. SO THESE MATERIALS ARE RELATIVELY FRAGILE. AND PRONE TO DETERIORATION, PRONE TO CORROSION AND ARE OFTEN PROTECTED IN THESE DECORATIVE CASES THAT I REFERENCED EARLIER. THEY MAY ALSO BE HAND-COLORED. YOU CAN SEE IN THIS BEAUTIFUL PORTRAIT THAT HER CHEEKS ARE HAND COLORED WITH A RED PIGMENT AND THIS WAS TO MAKE THESE IMAGES APPEAR A BIT MORE LIFE LIKE. AS GORGEOUS AS THESE ARE, AS AMAZING AS THESE IMAGES WERE--
AND IT'S HARD FOR US TO APPRECIATE WHAT IT MUST HAVE BEEN LIKE TO SEE THESE THINGS FOR THE FIRST TIME-- THEY WERE MONOCHROMATIC AND THEREFORE PHOTOGRAPHERS EXPERIMENTED EARLY ON WITH HAND COLORING WITH CHEEKS AND JEWELRY AND SOMETIMES HAND COLORING THE ENTIRE IMAGE. THEY'RE HIGHLY REFLECTIVE. THEY APPEAR LIKE A MIRROR WHEN YOU HOLD THEM IN YOUR HAND AND THAT'S HOW YOU DISTINGUISH THEM, ACTUALLY, FROM THE AMBROTYPE WHICH IS A PHOTOGRAPH ON GLASS WHICH IS NOT AS REFLECTIVE AND THE REFLECTIVE NATURE OF THE DAGUERREOTYPE HAS TO DO WITH THE FACT THAT IT'S ON A SILVER-PLATED COPPER SUPPORT. UNFORTUNATELY, THESE MATERIALS ARE PRONE TO CORROSION AND DETERIORATION, PARTICULARLY AT THE OUTER EDGES SO WHEN YOU LOOK AT THIS PORTRAIT FROM THE METROPOLITAN MUSEUM YOU CAN SEE THAT THE EDGES ARE TARNISHED AND CORRODED AND THIS IS VERY COMMON WITH CASED DAGUERREOTYPES AROUND THE WORLD AS THE AIR AND
MOISTURE INTRUDES AT THE OUTER
EDGES YOU FORM THESE CORROSION
PATTERNS.
AND IF THE COVER GLASS IS
BROKEN YOU'LL SEE CORROSION
ACROSS THE BREAKAGE WHERE YOU GET
THE INTRUSION OF AIR AND
MOISTURE.
SO IT'S IMPORTANT TO HANDLE
THESE MATERIALS PROPERLY TO
PROTECT THEM, TO PROTECT THE
SURFACES FROM HANDLING BECAUSE
FRAGILE AND ONE OF THE
OTHER CHALLENGES THAT WE FACED
WITH EARLY DAGUERREOTYPES IS
THAT THE COVER GLASS WHICH YOU
SEE HERE WHICH IS BROKEN IN THIS
CASE SOMETIMES BEGINS TO
DETERIORATE OR DECOMPOSE.
THAT'S WHAT WE REFER TO AS GLASS
DECOMPOSITION OR WEEPING GLASS
AND YOU SEE A GOOD EXAMPLE OF
THAT HERE IN THIS ANONYMOUS
PORTRAIT FROM THE GEORGE EASTMAN
HOUSE WHERE THE GLASS ITSELF HAS
BEGIN TO DETERIORATE.
IT ALMOST LOOKS LIKE IT HAS TINY
DROPLETS AND AS THE GLASS
DETERIORATES THE DETERIORATION
PRODUCTS CAN DROP DOWN ON THE
SILVER IMAGE CAUSING DETERIORATION TO THE PHOTOGRAPH ITSELF. GLASS DECOMPOSITION CAN BE CONTROLLED TO SOME EXTENT THROUGH PROPER STORAGE, ENVIRONMENTAL CONDITIONS. IN SOME SITUATIONS IT MAY BE IMPORTANT FOR YOU TO CONSULT WITH A PHOTOGRAPHIC CONSERVATOR. BUT THAT NEEDS TO BE DONE VERY CAREFULLY BECAUSE SOME OF THE SEALS ARE ORIGINAL AND ONE HAS TO WEIGH THE ADVANTAGES AND DISADVANTAGES AND TO TRY AND PROTECT THE DAGUERREOTYPE FROM DAMAGE TO THE ISSUES OF AUTHENTICITY. IN GENERAL YOU CAN SEE THAT DAGUERREOTYPE IS IN RELATIVELY GOOD CONDITION EXCEPT THAT THE COVER GLASS HAS DETERIORATED SIGNIFICANTLY. THESE COMPOSITE PROBLEMS ARE JUST TYPICAL OF THE KINDS OF ISSUES THAT WE FACE WITH PHOTOGRAPHIC MATERIALS AND AS I MENTIONED, MANY OF THE DIRECT POSITIVE MATERIALS ARE IN THESE DECORATIVE CASES.
THE CONSTRUCTION OF WHICH YOU SEE HERE.
SO TYPICALLY YOU HAVE YOUR OBJECT AND -- LET ME GET MY POINTER, SORRY, BEAR WITH ME. TYPICALLY YOU HAVE YOUR OBJECT IN THIS CASE THE DAGUERREOTYPE WHICH IS THEN PROTECTED WITH A BRASS MATT WHICH YOU SEE HERE, A COVER GLASS ON TOP TO PROTECT THAT SURFACE AND THEN AFTER 1845 OR SO YOU SEE PERHAPS A LITTLE BIT LATER, MAYBE 1850 YOU SEE THE PRESENCE OF THIS PRESERVER WHICH IS A THIN METAL FOIL THAT WRAPS AROUND THE EDGES OF THIS SANDWICH WHICH THEN IS -- WHICH YOU CAN SEE THE FOIL HERE, THE METAL PRESERVER HERE. WHICH THEN IS INSERTED INTO THE DECORATIVE CASE.
SO THESE CASE ELEMENTS ALL HAVE THEIR OWN ISSUES ASSOCIATED WITH PRESERVATION AND CONSERVATION THAT YOU NEED TO BE AWARE OF AS WELL AND THIS IS REALLY WHAT MAKES THE PRESERVATION OF PHOTOGRAPH MATERIALS SO EXCITING BECAUSE YOU'RE DEALING WITH SUCH A RANGE OF OBJECTS.
SO YOU HAVE THE DAGUERREOTYPE WHICH IS ON SILVER PLATED COPPER AND YOU HAVE THE AMBROTYPE WHICH YOU MAY HAVE IN YOUR COLLECTIONS AS WELL INTRODUCED IN 1851, 1852, POPULAR UNTIL THE 1860S AS WELL, SOMETIMES INTO THE 1870s.

IN THIS CASE THIS IS AN IMAGE ON GLASS OF COLLODION NEGATIVE THAT APPEARS POSITIVE WHEN IT'S BACKED WITH BLACK, A BLACK LACQUER, BLACK MATERIAL OF SOME KIND THAT CREATES A TO IMAGE THEY HAVE MORE OF A THREE DIMENSIONAL LOOK BECAUSE YOU'RE LOOKING THROUGH GLASS SOMETIMES TO SEE THE IMAGE BENEATH. THEY TEND TO BE IN RELATIVELY GOOD CONDITION. THEY ARE OFTEN VARNISHED TO PROTECT THE SILVER IMAGE FROM OXIDATION AND CORROSION WHICH IS MORE COMMON WITH THE DAGUERREOTYPE. THEY MAY BE EXTENSIVELY -- EXTENSIVELY HAND COLORED AS YOU SEE HERE. THIS IMAGE, AGAIN, IS REFERRED TO AS THE AMBROTYPE OR A
COLLODION POSITIVE ON GLASS. THAT REFERS TO THE IMAGE BINDER THAT HOLDS THE SILVER IMAGE AND SUSPENSION. AND SO IN THIS SLIDE YOU CAN SEE -- YOU MAY EVEN SEE AMBROTYPES UP INTO THE 1880s BUT THEY'RE MORE COMMON IN THE 1860s AND 1870s. THEY ARE DIMENSIONLY STABLE. THE SILVER IMAGE IS IN THIS COLLODION BINDER. THAT'S A FORM OF CELLULOSE NITRATE ONE OF THE BINDERS YOU FOUND USED IN 19th CENTURY IN PHOTOGRAPHY. THEY ARE TYPICALLY VARNISHED AND FOR REASON THEY MAY BE -- BECAUSE THESE REALLY ARE NEGATIVES ON GLASS. THEY WERE OFTEN COATED ON THE BACK. THE THIRD DIRECT POSITIVE PROCESS THAT YOU MAY ENCOUNTER IN YOUR COLLECTION AND THE ONE THAT'S PERHAPS THE MOST COMMON INTRODUCED IN 1856 BUT LET ME SAY COMMON IN THE UNITED STATES. NOT SO COMMON AROUND THE WORLD. THIS PROCESS WAS REALLY QUITE
POPULAR FOR THE UNITED STATES. IF WHEREAS AMBROTYPE PROCESS IS MORE POPULAR WORLDWIDE, PARTICULARLY IN PLACES LIKE NEW ZEALAND AND AUSTRALIA. THE TINTYPE DOMINATES THE 19th CENTURY, IN THIS CASE IT'S NOT ON TIN AT ALL BUT JAPANED IRON. JAPANING REFERS TO THE PRESENCE OF A BLACK LACQUER. THIS IS AN IRON SUPPORT LACQUERED WITH A BLACK PIGMENT OF SOME KIND. IT'S ALSO A SILVER A COLLODIAN BINDER AND TYPICALLY VARNISHED. AS IS TRUE WITH OTHER PHOTOGRAPHS I'VE SHOWN YOU, THESE MATERIALS MAY BE HAND COLORED IN THE CHEEKS. I LOVE TINTYPES, I'M SURE MANY OF YOU DO AS WELL. IT'S A GREAT SNAPSHOT OF PHOTOGRAPHY IN THE 19th CENTURY. AND THERE ARE WONDERFUL, WONDERFUL IMAGES OF CHILDREN, PARTICULARLY WHEN YOU STUDY THESE MATERIALS. THEY TEND TO BE IN RELATIVELY GOOD CONDITION.
THIS TINTYPE LOOKS VERY BROWN BUT IT'S PROBABLY BECAUSE THE LACQUER WAS MORE OF A BROWN LACQUER THAN A BLACK LACQUER. I DON'T THINK IT'S NECESSARILY FADED. THEY TEND NOT TO FADE BECAUSE THEY ARE VARNISHED AND THAT VARNISH LAYER PROTECTS THE SILVER IMAGE FROM OXIDATIVE ATTACK. BUT WHAT HAS HAPPENED TO THIS TINTYPE, WHICH IS MUCH MORE COMMON, IS THAT THE IRON SUPPORT HAS BEGUN TO DETERIORATE AND RUST AS YOU SEE HERE. SO WHEN THIS TINTYPE WAS FLEXED OR BENT IN SOME WAY IT CLOAK THE COLLODION BINDER CAUSING IRON TO BE EXPOSED TO HIGH HUMIDITY CONDITIONS WHERE IT'S BEGUN TO RUST AND THIS IS ONE OF OUR GREATEST CHALLENGE WITH THE TINTYPE PROCESS. THIS TINTYPE IS ANOTHER TERRIFIC ONE JUST TO SHOW YOU ONE IN GOOD CONDITION AGAIN A VARNISHED IMAGE, SILVER IMAGE IN A COLLODION BINDER ON AN IRON SUPPORT. YOU WILL FIND ALL KINDS OF
WORKSHOPS YOU CAN TAKE THAT TEACH YOU HOW TO MAKE TINTYPES AND AMBROTYPES, PARTICULARLY AT THE GEORGE EASTMAN HOUSE. THERE ARE WEB SITES THAT YOU CAN GO ON TO SEE HOW THINGS ARE DONE AND IT'S FOUND TAKE THESE COURSES WHERE YOU CAN BECAUSE YOU GET A MUCH BETTER APPRECIATION FOR THE CHALLENGES ASSOCIATED WITH 19th CENTURY PHOTOGRAPHY SO I URGE YOU TO CHECK OUT THIS SLIDE SHOW AND MANY OTHERS THAT YOU WILL FIND THAT ILLUSTRATE HOW THESE MATERIALS WERE MADE. I'LL BET BETTER AT THIS ON THURSDAY, I PROMISE. SO YOU CAN SEE THIS IS BEING POURED ON IRON SUPPORT AND IT WILL BE ROCKED BACK AND FORTH SO IT COVERS SUPPORT EVENLY. THE SECOND IMAGE IS DIPPING THIS PLATE INTO A BATH OF SILVER NITRATE WHERE YOU'RE FORMING LIGHT SENSITIVE SILVER IODIDE IN THE COLLODIAN BINDER. THIS WILL BE PLACED ON A CAMERA EXPOSED TO LIGHT. SO LOOK AT THIS WEB SITE AND
MANY OTHERS TO BETTER UNDERSTAND HOW THE PROCESSES WERE DONE AND MANY PHOTOGRAPHERS ARE STILL WORKING IN THIS PROCESS. THIS IS A PHOTOGRAPH BY JOHN COX ON OUR FACULTY AT THE UNIVERSITY OF DELAWARE WHO TAKES STUDENTS TO TANZANIA AND CAMBODIA AND VIETNAM FOR PHOTOGRAPHY AND MANY CASES ARE WORKING WITH HISTORIC PROCESSES SUCH AS THE TINTYPE WHICH YOU SEE HERE SO THAT GIVES YOU A BIT OF AN INTRODUCTION I HOPE TO SOME OF THESE EARLY DIRECT POSITIVES. THE DAGUERREOTYPE, AMBROTYPE AND TINTYPE REVISIT THEM AGAIN AS WE MOVE THROUGH AND I AM CERTAINLY HAPPY TO ANSWER QUESTIONS ABOUT THEM. LET ME GO THROUGH A FEW MORE SLIDES BEFORE WE STOP FOR QUESTIONS AND JUST INTRODUCE A WHOLE OTHER CATEGORY WHICH IS PRINT MATERIALS AND THESE MATERIALS RANGE QUITE CONSIDERABLY FROM THE SALTED PAPER PRINT WHICH YOU SEE HERE AND EARLY PHOTOGRAPHIC PROCESS COMPRISED OF ALBUMEN IMAGE
EMBEDDED IN A PAPER SUPPORT
INTRODUCED AND POPULAR ABOUT THE
SAME TYPE.
THIS PARTICULAR BEAUTIFUL SALTED
PAPER PRINT IS IN EXCELLENT
CONDITION.
OR THE ALBUMEN PHOTOGRAPH WHICH
BEGIN TO REPLACE THE SALTED
PAPER PRINT IN THE 1850s.
I'LL TALK MUCH MORE ABOUT
ALBUMEN PHOTOGRAPHY ON THURSDAY.
THIS IS A WONDERFUL IMAGE OF
HAND COLORED ALBUMEN PRINT.
THE PROCESS REALLY DOMINATES THE
19th CENTURY AROUND THE WORLD.
THE IMAGE PERMANENCE INSTITUTE
IN ROCHESTER, NEW YORK, IS A
WONDERFUL RESOURCE FOR A VARIETY
OF INFORMATION ON PHOTOGRAPHIC
PRESERVATION.
I'LL SHOW YOU INFORMATION FROM
THE IMAGE -- FROM THIS INSTITUTE
THROUGHOUT THESE WEBINARS.
THEY HAVE ACQUIRED A COLLECTION
OF HAND COLORED POSTCARDS, ONE
OF WHICH YOU SEE HERE SO THIS IS
A MUCH MORE RECENT.
IT'S 1930.
IT'S A PHOTOGRAPHIC IMAGE, BLACK
AND WHITE IMAGE THAT'S BEEN
TONED TO PRODUCE SOMETHING THAT'S BROWN IN COLOR, WHAT WE CALL SEPIA TONING, AND THEN EXTENSIVELY HAND COLORED AS YOU SEE HERE. I'M SHOWING THESE AT PHOTOGRAPHIC PRINTING PROCESSES. ALL OF THESE ARE SILVER-BASED IMAGES BUT A WIDE VARIETY OF PROCESSES AND DIFFERENT TIME PERIODS AND WE'LL REVIEW THIS AND THE MAJOR PROCESSES YOU SEE HERE IN THE UPCOMING SEMINARS. I WANT TO FOCUS ON THE ALBUMEN PROCESS AND GELATIN DEVELOPING OUTPAPERS BECAUSE THESE THE ONES THAT WILL DOMINATE YOUR COLLECTIONS AND WE ONLY HAVE FIVE SEMINARS. I'LL TRY AND HIGHLIGHT ALL OF THESE IN MY LECTURE ON THURSDAY. IT'S IMPORTANT WHEN YOU'RE THINKING ABOUT PRINT PROCESSES TO THINK ABOUT TIMELINES. THIS WILL DIFFERENTIATE ONE PROCESS FOR FROM ANOTHER TO UNDERSTAND WHEN THEY WERE INTRODUCED BECAUSE IN MANY CASES WITH YOUR OWN COLLECTIONS YOU PROBABLY CAN BEGIN TO DATE THEM.
YOU UNDERSTAND THEM, KNOW WHO THE SITTERS ARE.
YOU KNOW THEY ARE FROM THE 1860s OR 1890s SO THIS TIMELINE CAN HELPFULLY HELP YOU SORT OUT THE VARIOUS PROCESSES.
YOU'LL SEE IN THE 19th CENTURY THESE SILVER-BASED PROCESSES TEND TO BE MORE BROWN IN COLOR, PURPLEISH BROWN IN COLOR.
THE SALTED PAPER PRINT OR ALBUMEN PRINT HERE AS WE MOVE INTO THE 20th CENTURY WE SEE THE INTRODUCTION OF BLACK AND WHITE DEVELOPED OUTPAPERS THAT WERE POPULAR FROM 1905 TO 1960 SO SUDDENLY THE IMAGE COLOR IS SHIFTING FROM SOMETHING BROWNER IN COLOR PRODUCED BY TAKING LIGHT SENSITIVE MATERIALS AND BASING THEM INTO THE AND THEN THERE ARE IMAGES WITH CHROMOGENIC COLOR PHOTOGRAPHIC IS ACTUALLY ORGANIC. DYES THAT YOU SEE HERE.
CYAN, MAGENTA AND YELLOW.
WE WILL BE ADDRESSING THESE AND CERTAINLY THE BOOKS THAT I MENTIONED EARLIER IN THE WEBINAR IT'S POPULAR AROUND THE WORLD,
ON A THIN PAPER SUPPORT
TYPICALLY MOUNTED BECAUSE THESE
PHOTOGRAPHS HAVE A TENDENCY TO CURL
THE FINAL IMAGE IS SILVER.
THIS IS AN ALBUMEN PRINT AND
JUST GORGEOUS CONDITION
BEAUTIFUL DETAILS AND THE
HIGHLIGHTS AS YOU SEE.
IT'S DONE AS THE ALBUMEN PROCESS
BECAUSE THE BINDER IS ACTUALLY
EGG WHITE, OR ALBUMEN, AND THE
IMAGE IS SILVER, THESE IMAGES DO
FADE.
THE EGG WHITE CAN CRACK UPON
EXPOSURE TO FLUCTUATING
ENVIRONMENTAL CONDITIONS AND
WE'LL TALK ABOUT THIS IN MUCH
MORE DETAIL ON THURSDAY.
AS WE WILL ALSO VISIT THE SILVER
GELATIN DEVELOPING OUT PROCESS
LOOKS VERY DIFFERENT THAN THE
ALBUMEN PRINT YOU SAW EARLIER.
YOU CAN SEE THIS IMAGE IS MUCH
BLACKER COLOR.
MORE BLACK-AND-WHITE.
IT'S DEVELOPED OUT RATHER THAN
PRINTED OUT.
THE FINAL IMAGE IS ACTUALLY
METALLIC SILVER, WHICH IS ALSO
TRUE OF THE ALBUMEN PRINT.
LET ME SEE IF I CAN GO BACK JUST OUT OF CURIOSITY. I CAN! GOOD! SO LOOK AT THE DIFFERENCE IN THE IMAGE COLOR THERE THAT'S BROWNER PURPLEISH BROWN IN COLOR VERSUS THE PORTRAIT OF THIS WOMAN WHICH IS MUCH MORE BLACK AND WHITE. IN THIS CASE THE BINDER IS GELATIN. SO THIS IS A SILVER IMAGINE EMBEDDED IN A GELATIN BINDER WHICH IS THE TYPICAL BINDER YOU ENCOUNTER IN THE 20th CENTURY. THERE'S SOME EVIDENCE OF IMAGE FADING AND DETERIORATION THROUGHOUT AND STILL VERY MIRRORING WHICH WE WILL TALK ABOUT WITH YOUR GRAPHIC PRINTS AND GLASS PLATE NEGATIVES FROM THIS TIME PERIOD. CAUSED BY EXPOSURE TO POOR ENVIRONMENTAL CONDITIONS AGAIN. AND FINALLY CONTEMPORARY COLOR PROCESSS WHICH ARE VERY DIFFERENT IN CROSS SECTION HERE YOU CAN SEE YOU'RE DEALING WITH A CROSS SECTION COMPRISED OF DYES, CYAN, MAGENTA AND YELLOW.
ANOTHER TRAIN.
I'M SO SORRY BUT I HOPE YOU CAN HEAR ME.
YOU CAN SEE IT'S VERY MAGENTA AND THE CYAN DYE HAS FADED SIGNIFICANTLY AS PROBABLY HAS THE YELLOW DYE.
IN THIS CASE THE IMAGE IS ON A RESIN COATED PAPER SUPPORT THAT'S COATED ON BOTH SIDES WITH POLYETHYLENE.
THE FOCUS IS TO GIVE YOU A SNAPSHOT ON WHAT KINDS OF MATERIALS ENOUGH YOUR COLLECTIONS AND THE WIDE VARIETY OF IMAGE MATERIALS AND BASES AND TIME PERIODS REPRESENTED AND HOPEFULLY OUR GOAL IN THE DAYS AHEAD, THE MONTH AHEAD IS TO STRATEGIZE ABOUT HOW TO PRESERVE THESE.
SO CHROMOGENIC COLOR DOMINATES THE 20th CENTURY AND IS POPULAR UNTIL PRESENT TIME BUT, OF COURSE, DIGITAL PROCESSES DOMINATE COLLECTIONS NOW. BUT THESE ARE DYE-BASED IMAGES IN A GELATIN BINDER AND WE WILL SPEAK AT GREAT LENGTH ABOUT DYE FADING AND DETERIORATION AND
MANY OF YOU ASK WELL, WHAT ABOUT COLOR SLIDES?
COLOR SLIDES LIKE COLOR PRINTS ARE COMPRISED OF ORGANIC DYES AND IN THIS CASE POSITIVE IMAGES ON A PLASTIC SUPPORT OF SOME KIND TYPICALLY CELLULOSE ACETATE OR POLYESTHER.
THERE'S A WONDERFUL BOOK THAT HADN'T BEEN PRINTED YET BUT WILL BE OUT SHORTLY ALSO PRODUCED BY THE GETTY CONSERVATION INSTITUTE AND THIS WILL REALLY BE YOUR BEST RESOURCE OR ONE OF YOUR BEST RESOURCES FOR COLOR PHOTOGRAPHY, 20th CENTURY COLOR PHOTOGRAPH.
IT'S ANOTHER WONDERFUL BOOK BY HENRY WILHELM AS WELL WHICH I'LL REFER TO IN THE NEXT SESSION BUT WE LOOK FORWARD TO SYLVIA'S BOOK WHICH SHOULD BE OUT SHORTLY.
AND FINALLY AND THEN I'LL TAKE A BREAK FOR A QUESTION OR SO BUT OUR TIME IS RACING AWAY I SEE BUT I DID WANT TO MENTION THAT AS WE TALK ABOUT PHOTOGRAPHIC MATERIALS WE PROBABLY WON'T TALKING ABOUT PHOTO MECHANICAL PROCESSES SO THESE ARE
PHOTOGRAPHIC PROCESSES THAT YOU SEE HERE THAT ARE PRODUCED WITH PHOTOGRAPHIC NEGATIVES THAT ARE PRINTS.
MADE WITH PRINTING INK IN MULTIPLES AND YOU'RE LIKELY TO HAVE MANY PHOTO MECHANICAL PRINT PROCESSES AS WELL AND SOMETIMES THEY CAN BE QUITE DIFFICULT TO DISTINGUISH FROM PHOTOGRAPHIC WHICH IS CONTINUE WHITE HOUSE TONE IMAGES.
AS YOU LOOK CAREFULLY UNDER THESE PROCESSES UNDER 30X MAGNIFICATION WHICH YOU CAN ACHIEVE WITH SPECIAL LOOPS YOU WILL BEGIN TO SEE AS YOU SEE HERE THAT THESE IMAGES ARE NOT CONTINUOUS TONE.
THAT THEY'RE BROKEN UP IN SOME WAY AND THEY ACTUALLY ARE PRINT SO THIS IS HAND COLORED AND I WANT TO BE SURE TO IMMEDIATELY DIRECT YOU TO THIS WONDERFUL RESOURCE, THE GRAPHICS ATLAS, ON THE IMAGE PERMANENCE INSTITUTE WEB SITE.
THIS RESOURCE INCLUDES INFORMATION ON PHOTO MECHANICAL AND PHOTOGRAPHIC PROCESSES WHERE
YOU CAN RESEARCH THESE MATERIALS AND BETTER UNDERSTAND HOW THEY WERE MADE AND WHAT THEY LOOK LIKE, HOW THEY DETERIORATE AND YOU CAN BEGIN TO EXPLORE THE SITE AND COMPARE ONE PROCESS TO ANOTHER.
SO SO HERE'S ONE EXAMPLE OF COMPARING A CYAN KNOWN TYPE, A PROCESS OF WHICH THE FINAL IS BLUE WITH THE ALBUMEN PIGMENT PROCESS WHICH IS, OF COURSE, A MATERIAL WE JUST SPOKE ABOUT WHERE THE FINAL IS IN AN ALBUMEN BINDER LAYER.
THESE DON'T REQUIRE A LOT OF INTENSIVE STUDY I DO DISTINGUISH A COLLOTYPE FROM AN ALBUMEN PRINT BUT IT GIVES YOU A COMPARE SIN OF HOW THE THIS WORKS.
SO I URGE YOU IF YOU CAN BETWEEN NOW AND THURSDAY TAKE A LOOK AT THIS.
LOOK AT ALBUMEN PRINTS, LOOK AT PHOTO MECHANICAL PROCESS AND LOOK AT THESE MATERIALS UNDER HIGH MAGNIFICATION.
IT ALLOWS YOU TO LOOK AT THEM IN DIFFERENT LIGHTING CONDITIONS, ALREADY A LIGHT AND I
THINK YOU WILL FIND IT TO BE VERY, VERY USEFUL AS YOU BEGIN TO TRY AND DIFFERENTIATE PHOTO MECHANICAL FROM PHOTOGRAPHIC, ALBUMEN FROM SALTED PAPER, SILVER GELATIN FROM ALBUMEN, ET CETERA.

AND IT'S PART OF THE IMAGE INSTITUTE WEB SITE.

THE IMAGE PERMANENCE INSTITUTE HAS MANY OTHER RESOURCES AS WELL THAT WE'LL ADDRESS WHEN WE TALK MORE ABOUT DIGITAL PROCESSES.

BUT DO TRY AND FIND TIME VISIT THE GRAPHICS RESOURCES, A WEB SITE THROUGH THE GEORGE EASTMAN HOUSE KNOWN AS NOTES OF PHOTOGRAPHS AND HERE YOU CAN EXPLORE QUESTIONS THAT YOU MIGHT HAVE ON DIFFERENT PROCESSES, HOW THEY WERE MADE, HOW THEY'VE DETERIORATED OVER TIME.

I DON'T HAVE TIME THROUGH THIS SEMINAR TO SORT OF HIGHLIGHT VARIOUS PAGES BUT I'M JUST URGING YOU TO TAKE A LOOK AT THESE ON THEIR OWN.

MAYBE AT THIS POINT -- IT'S 250 O'CLOCK, I CAN'T BELIEVE IT.

I HOPE YOU GUYS ARE ALL SORT OF
HANGING IN HERE WITH ME. BUT KRISTEN, ARE THERE ANY QUESTIONS THAT YOU THINK I MIGHT ADDRESS AT THIS POINT?

>> YES, LET'S DO A FEW.

I FEEL LIKE A LITTLE BIT OF INFORMATION.

I DID WANT TO ASK A QUESTION ABOUT DAGUERREOTYPES. MELISSA SAID WHAT CAUSES THE IMAGE TO FLAKE OFF A DAGUERREOTYPE, IS IT JUST MOISTURE OR CORROSION?

AND GRETA REPLIED IT COULD BE A LOT OF THINGS AND THEN IT'S JUST A -- IT'S KIND OF UNUSUAL FOR DAGUERREOTYPE.

DO YOU HAVE ANY MORE TO ADD?

>> YEAH, I'M SEEING THAT.

LET ME JUST TELL YOU ALL AGAIN HOW GRATEFUL I AM TO GRETA AND HEALER WHO ARE DOING THIS AND DOING SUCH A GOOD JOB WITH YOUR QUESTIONS AND PLEASE DON'T HESITATE TO ASK YOUR QUESTIONS BECAUSE IT GIVES US A SENSE OF WHAT WE NEED TO ELABORATE ON. GRETA IS RIGHT. SO FIRST WHAT WE NEED TO DO IS ENSURE THAT IN FACT THIS IS A
DAGUERREOTYPE SO THE DAGUERREOTYPE AS AN OBJECT IS REFLECTIVE AS A MIRROR WITH THE MEMORY SO YOU HAVE THIS HIGHLY REFLECTIVE SERVICE YOU'LL SEE A POSITIVE OR NEGATIVE IMAGE. DAGUERREOTYPES MAY NOT REFLECT AS MUCH BUT THEY HAVE THIS HIGH REFLECTION BUT THE AMBROTYPE, WHICH IS A PHOTOGRAPH ON GLASS AND REMEMBER THAT'S COLLODION I DON'T KNOW ON GLASS, THAT IS A PROCESS THAT DOES FLAKE BECAUSE YOU'VE COATED THIS BINDER, THIS VISCIOUS CELLULOSE NITRATE LIQUID ON TO GLASS SUPPORT AND IT CAN FLAKE AT ITS OUTER EDGES AND LIKE WISE THAT BLACK LACQUER LAYER WHICH IS OFTEN APPLIED TO THE GLASS TENDS TO CRACK AND FLAKE AS WELL. THAT FLAKING PHENOMENA IS A BIT MORE COMMON WITH THE AMBROTYPE OR TINTYPE THAN THE DAGUERREOTYPE. ALL THAT SAID, HOWEVER, ALL BETS ARE OFF WITH PHOTOGRAPHS SO THE DAGUERREOTYPE IS A SILVER PLATED COPPER SUPPORT AND AT THE OUTER
EDGES IN SOME CASES ALTHOUGH IT'S RELATIVELY RARE THAT SILVER LAYER WILL EXFOLIATE OR LIFT OR FLAKE.
SO YOU MAY BE SEEING THAT WITH YOUR IMAGE BUT IT IS ALSO POSSIBLE THAT YOU HAVE A TIN TYPE OR AMBROTYPE.
DO YOU WANT TO GO BACK AND LOOK AT THESE MATERIALS IF IT'S A CASE.
SOMETIMES IT CAN BE HARD TO TELL.
IF IT'S IN A CASE ONE WAY TO DIFFERENTIATE TINTYPES ON AN IRON SUPPORT FROM THE AMBROTYPE PROCESS WITH A MAGNET, A STRONG MAGNET.
AND YOU WILL FEEL THAT MAGNETIC PULL OF THE IRON SUPPORT.
DOES THAT ANSWER THE QUESTION?
>> I THINK THAT'S A VERY HELPFUL ANSWER.
NINA WAS NOTING SHE HAD A FAMILY GROUP PHOTO FROM THE LATE 1890s AND SAW THAT IT WAS MOUNTED BY A JEWELRY STORE AND SHE WAS INTERESTED IN THAT AND GRETA REPLIED THAT SMALL TINTYPES WERE MADE SMALL TO GO INTO
Jewelry so that we didn't think that was too unusual to see a jeweler's mark on a photograph. But she wondered if this -- hers is no longer in its case if it ever had been presented in a case so she was wondering about that.

>> Okay, yeah,

>> Will that make it more vulnerable to environmental conditions?

>> Tintypes are spectacular because they can be in different sizes. They were produced -- some of them are found in decorative cases, which is true with the daguerreotype and ambrotype. They tend to be standard sizes but they were sometimes inserted into paper mats, also placed into photographic albums during the Victorian times so if you look at Victorian album which is may be comprised of albumen photographers but also smaller tintypes. But they can be very, very small as is true most likely with this
PARTICULAR TINTYPE. THOSE ARE KNOWN AS GEM TINTYPES MADE FOR JEWELRY AND SPECIALIZED ALBUMS THAT HELD THESE SMALL -- MAYBE TWO CENTIMETER IN DIAMETER TINTYPE PORTRAITS IN THESE DECORATIVE ALBUMS MADE FOR TINTYPES BUT THEY WERE MOUNTED INTO JEWELRY, INTO PINS, THEY WERE USED FOR PHOTOGRAPHIC BUTTONS, USED FOR CAMPAIGNS AS WELL DURING THE TIME PERIOD THE TINTYPE WAS POPULAR SO YOU CAN FIND THEM IN VARIOUS FORMATS. THEY SHOULD BE HOUSED IN -- IF THEY'RE NOT IN THE THE ORIGINAL ENCLOSURE FOR JEWELRY THEY SHOULD BE PROTECTED IN SOME WAY. IF THEY ARE I WOULD LEAVE THEM AS IS BECAUSE THAT'S PART OF THEIR PRESERVATION. I WOULD IMAGINE THAT THIS PARTICULAR OBJECT IS IN GOOD CONDITION. I LOVE TO TALK ABOUT THE CROSS SECTION AND THINK BACK ALL OF YOU ON WHAT IS THE CROSS SECTION OF THESE MATERIALS I'M GOING TO TALK ABOUT THAT SHORTLY. BUT JUST THINKING, THE PART
THAT'S COATED WITH A BLACK LACQUER OF SOME KIND, A COLLODION BINDER AND THEN VARNISH. SO IF THESE MATERIALS ARE EXPOSED TO POOR ENVIRONMENTAL CONDITIONS THESE DIFFERENT LAYERS EXPAND AND CONTRACT DIFFERENTLY. SEE FLAKING AND DETERIORATION BUT MANY ARE IN GOOD CONDITION AND THANK GOD FOR THAT VARNISH LAYER.

>> WELL, ROBIN HAD A QUESTION ON C PRINT AND CIBACHROME BUT AS ROBIN MENTIONED THAT WILL COME UP IN THE NEXT WEBINAR SO I'LL REVISIT THIS AND WE CAN TALK ABOUT IT THEN.

>> C-PRINT IS A TERM THAT'S USED FOR CHROMEGENIC COLOR PHOTOGRAPHS BUT IT CAN ALSO BE USED FOR MANY OTHER PROCESSES SO SOMETIMES IN YOUR COLLECTION YOU'LL HAVE PHOTOGRAPHS THAT ARE IDENTIFIED AS "C PRINTS" BUT FOR THE MOST PART THESE ARE COLORED IMAGES. CIBACHROME IS ONE TYPE OF COLORED PHOTOGRAPHIC PROCESS
WHICH IS KNOWN AS A SILVER DYE BLEACH PROCESS AND I'M NOT SURE HOW MUCH DETAIL GO INTO WITH ALL THE DIFFERENT COLOR PROCESSES, THERE ARE MANY FROM CHROMEGENIC COLOR TO SILVER DYE BLEACH TO DYE DIFFUSION TRANSFER TOP DYE TRANSFER PROCESSES. BUT IF WE CAN GET INTO THIS WE WILL.

>> AND I'LL GET A BIT INTO COLORED SLIDES AND COLORED PRESERVATION A BIT MORE GENERALLY.

>> AND I KNOW LAIR YA HAD A QUESTION ABOUT PHOTOGRAPH STORAGES BUT YOU'LL BE GETTING INTO THAT LATER ON SO WE'LL HOLD THAT QUESTION FOR WEBINAR 4.

AND I THINK GRETA'S DONE A GOOD JOB ANSWERING CHRISTINA'S QUESTION ABOUT PRINTING OUT AND DEVELOPING OUT.

>> THAT'S A GOOD QUESTION.

I WILL TALK ABOUT THAT A BIT MORE.

I REALIZED ACTUALLY -- YOU KNOW, THIS IS SOME OF MY FIRST EXPERIENCES WITH A WEBINAR AND ONE OF THE CHALLENGES, OF COURSE
As you all can imagine, I'm speaking in my office surrounded of images of Beatles, which is nice but talking to my computer so I can't see you so as soon as I said printed I thought, oh, gosh, I haven't explained that and if I could see you I could suddenly see that you all look -- but printed out refers to the fact that these are photographic processes, print processes primarily.

They dominated the 19th century which are made by taking light sensitive paper and placing that paper in contact with a glass plate negative into a printing frame and out into the sun where the image visually prints out. So we prefer refer to these materials that they're printed out.

And in doing so you're forming a silver image you that's rounded in shape known as photo it will I can silver. Whereas where I mentioned at the same moment I realized if I could have seen you all I would
HAVE EXPLAINED THAT.
BUT DEVELOPING OUT REFERENCES TO THE
TECHNIQUE OF TAKING LIGHT
SENSITIVE PAPER AND NOW YOU'RE
WORKING IN A DARK ROOM WHERE THE
LIGHTS ARE DIM, THEY MIGHT BE
WORKING WITH A RED LIGHT AND NO
LIGHT BUT YOU TAKE THE LIGHT
SENSITIVE THE PAPER.
YOU PLACE IT IN AN ENLARGER AND
YOU ENLARGE A NEGATIVE IMAGE ON
TO THAT PAPER AND THEN GO FROM
THE ENLARGER TO A CHEMICAL
DEVELOPER YOU'RE WORKING
ENTIRELY A DARK ROOM, NOT
CONTACT PRINTING BUT RATHER
ENLARGING AND THAT'S WHAT WE
CALL DEVELOPING OUT.
THAT'S BLACK-AND-WHITE
PHOTOGRAPHY, I'LL TALK MORE
ABOUT THAT ON THURSDAY BUT THAT
DISTINGUISHING PRINTED OUT FROM
DEVELOPING OUT IS AN IMPORTANT
CONCEPT THAT YOU WANT TO BEGIN
TO UNDERSTAND BECAUSE IT WILL
HELP YOU TO DIFFERENTIATE
PHOTOGRAPHIC PROCESSES SUCH AS
THE ALBUMEN PRINT FROM THE BLACK
AND WHITE SILVER GELATIN
PHOTOGRAPH.
SO LET ME GO THROUGH A FEW MORE IMAGES AND PICK UP SOME QUESTIONS TOWARD THE END. AND WE'LL END AT 2:30.

IF YOU WERE MY GRADUATE STUDENTS YOU HAVE TO RUN OFF AND TAKE CARE OF SO MANY OTHER THINGS SO LET ME KEEP MOVING FORWARD SR. THAT'S OKAY BUT ONCE AGAIN I WENT BACK A BIT TO THIS GRAPHICS ATLAS PAGE JUST TO SAY ALTHOUGH I DON'T -- THIS IS NOT NECESSARILY PART OF THE HOME WORK IT WOULD BE USEFUL FOR YOU TO TRY AND CHECK THIS OUT BEFORE WE MEET AGAIN ON THURSDAY.

OKAY.

NOTES ON PHOTOGRAPHS I MENTIONED WE'VE TALKED ABOUT PRINT MATERIALS. TYPICALLY ON PHOTOGRAPHIC PAPER OF SOME KIND IT'S NICE WITH PHOTOGRAPHY THAT THE PAPER SUPPORT TENDS TO BE A GOOD QUALITY. THANK GOODNESS FOR THAT. SO GOOD-QUALITY PAPERS IN THE 1960s WE SEE THE INTRODUCTION OF RESIN COATED PAPERS.
PAPER COATED WITH POLYETHYLENE ON BOTH SIDES BUT IT'S PRINT MATERIALS FOR THE MOST PART ON A PAPER SUPPORT OR SOMETHING LIKE THAT.

A SILVER IMAGE, A DYE-BASED IMAGE, MAYBE A PLATINUM OR PIGMENT BUT WE CALL THESE PHOTOGRAPHIC PRINTS AND THEN ANOTHER CATEGORY OF MATERIALS THAT ARE NEGATIVES WHICH WE'LL TALK ABOUT WEBINAR THREE YOU CAN SEE THIS GLASS PLATE NEGATIVE BEING REMOVED FROM A PAPER ENVELOPE AND THESE NEGATIVES MAY BE ON GLASS OR FILM.

I SHOWED YOU THIS IMAGE EARLIER. THE THIS FILM IS IS DETERIORATE IN CATASTROPHIC WAYS AND IS ADVERSELY AFFECTING THE SILVER IMAGE AND THESE NEGATIVE MATERIALS MAY BE ON CELLULOSE ACETATE, THEY MAY BE ON CELLULOSE NITRATE OR ON FILM AND IT'S IMPORTANT TO UNDERSTAND THESE DIFFERENT MATERIALS SO YOU CAN STRATEGIZE CAREFULLY ON THEIR PRESERVATION.

MY SEMINAR NUMBER FOUR WILL TALK ABOUT PRESERVATION PLANNING AND
HOW TO DEVELOP A STEP WISE APPROACH TO DEALING WITH NEGATIVE PRINTS AND DAGUERREOTYPES, AMBROTYPES, TIN TYPES SO I'LL PULL THAT ALL TOGETHER FOR YOU IN SEMINAR NUMBER FOUR NOW I WANT TO BE SURE YOU'RE WELL AWARE WE HAVE THIS RANGE OF MATERIALS. ONE THING THAT'S INTERESTED IS MANY OF THE NEGATIVE MATERIALS THAT YOU SEE IN THIS IMAGE HERE ARE -- ALTHOUGH THEIR BASES MAY VARY FROM ACETATE TO POLYESTER TO CELLULOSE NITRATE, THE IMAGE MATERIAL IS SIMILAR THESE ARE COMPRISED OF SILVER IMAGES IN A GELATIN LAYER THERE'S NO ALBUMEN, THERE'S NO COLLODION SO IN THIS CASE THE FINAL IMAGE MATERIAL IS ORGANIC DYES SO THESE CROSS SECTIONS VARY FROM PROCESS TO PROCESS BUT THERE ARE SIMILARITIES IN TERMS OF SILVER METAL OR GELATIN BINDER LAYERS AND WE'LL TALK ABOUT THAT. THIS IS A WONDERFUL PHOTOGRAPH PROVIDED BY A COLLEAGUE OF MINE IN LISBON, PORTUGAL WHO HAS A BUSINESS THERE AND THEY'RE
INVOLVED IN COLLECTIONS THROUGHOUT PORTUGAL AND YOU CAN SEE THEM TREATING A COLLECTION OF CELLULOSE ACETATE NEGATIVES AND WHAT'S INTERESTING ABOUT THIS IMAGE IS THAT THEY ARE REMOVING THE DETERIORATED ACETATE BASE FROM THE GELATIN AND I SHOW YOU THERE SO YOU CAN BEGIN TO APPRECIATE THE LAYERED STRUCTURE OF THESE PHOTOGRAPHIC MATERIALS.

NOT ONLY DO YOU HAVE DIFFERENT KINDS OF CATEGORY BUS DIFFERENT KINDS OF FORMATS. MANY PHOTOGRAPHIC PRINTS WERE MOUNTED. MANY MOUNTED PHOTOGRAPHIC PRINTS WERE PLACED IN PHOTOGRAPHIC ALBUMS AS YOU SEE HERE. SO WE WILL SPEND SOME TIME TALKING ABOUT THE PRESERVATION OF PHOTOGRAPHIC ALBUMS: THIS IS STILL -- THIS PHOTOGRAPHIC ALBUM YOU WOULD KNOW THAT BUT THIS IS A -- MORE BROWN IN COLOR, PROBABLY MORE LIKELY TURN OF THE CENTURY. YOU CAN SEE THESE IMAGES ARE MOUNTED ON TO THESE DECORATIVE
PAGES.
IT'S IMPORTANT WHETHER THEY'RE VICTORIAN WHICH IS TRUE OF THE EARLIER IMAGE WHICH I SHOWED YOU.
THIS IS A VICTORIAN ALBUM OR MORE MODERN AS YOU SEE HERE THAT THESE ALBUMS BE PRESERVED AS A UNIT.
THESE ALBUMS TO AVOID DISASSEMBLING THEM BUT TRYING TO FIND WAYS TO PRESERVE THEM.
WITH THE BINDING INTACT.
AND THEY MAY BE COMPRISED OF A WIDE VARIETY OF PRINT PROCESSES, SUSPECT.
THESE ARE SILVER GELATIN PRINT OUT PHOTOGRAPHS AND I'M SAYING PRINTED OUT BECAUSE THEY AREN'T BLACK AND WHITE IN COLOR.
THEY'RE MORE BROWN IN COLOR BUT YOU MAY HAVE ALBUMS -- I'M CERTAIN YOU IN YOUR COLLECTIONS THAT ARE BLACK AND WHITE OR COLOR OR WHATEVER THAT MIGHT BE ALSO FRAMED MATERIALS.
HERE'S ANOTHER IMAGE PROVIDED FROM NORTH CAROLINA STATE MUSEUM NATURAL SCIENCES, THANK YOU FOR DOING THAT.
HONESTLY IF YOU WANT TO KEEP SENDING IMAGES I WILL TRY AND ADD THEM IN. I THINK IT'S NICE TO DO THAT. THIS IS CLASSIC PHOTOGRAPHIC DEGRADATION, PHOTOGRAPHIC MATERIALS THAT HAVE BEEN HOUSED IN VARYING DIFFERENT KINDS OF ENVIRONMENTS, PERHAPS EXPOSED TO WATER OF SOME KIND BUT THEY'RE FRAMED DIRECTLY AGAINST THE GLASS AND YOUR COLLECTIONS IN YOUR OWN FAMILY MATERIALS AS WELL. IT'S IMPORTANT WITH THESE PHOTOGRAPHIC MATERIALS TO MAT THEM, FRAME THEM PROPERLY AND PROTECT THEM FROM ENVIRONMENTAL CONDITIONS WHICH CAN CAUSE A PROBLEM LIKE YOU SEE HERE. SO WE'LL TALK A BIT OVER THE COURSE OF THIS DISCUSSION ABOUT FRAMED MATERIALS AS WELL. THE BOTTOM LINE IS JUST TO UNDERSTAND THIS CROSS SECTION. THAT YOU HAVE MANY DIFFERENT SUPPORTS TO INCLUDE FOR NOTE GRAPHIC PRINT MATERIALS BUT WITH OTHER MATERIALS IT CAN BE GLASS OR METAL.
LEATHER, TEXTILES, PHOTOGRAPHS ARE PRODUCED ON ALL DIFFERENT KINDS OF SUPPORTS, PLASTIC FILM. MANY PHOTOGRAPHS HAVE A TRANSPARENT BINDER HOLDS THE FINAL IMAGE MATERIAL AND SUSPENSION SO THAT'S WHAT YOU SEE HERE. THE BINDERS VARY FROM ALBUMEN TO COLLODION TO GELATIN, A COMMERCIALLY PREPARED PROTEIN. AND THE FINAL IMAGES VARIES SIGNIFICANTLY. SO WHEN WE BEGIN TO THINK ABOUT THESE MATERIALS I WANT YOU TO ALWAYS BE THINKING ABOUT THESE DIFFERENT SUPPORTS AND HOW THEY DETERIORATE OVER TIME, THE VARIOUS BINDERS, ALBUMEN, COLLODION AND GELATIN. AGAIN, ALBUMEN AND COLLODION DOMINATING THE 19th CENTURY. GELATIN DOMINATING IN THE 19 CENTURY AND THEN A FINAL IMAGE MATERIAL MAY BE SILVER, ORGANIC DYES, PIGMENTS, PLATINUM GOLD, IRAN SALTS, A WHOLE VARIETY OF MATERIALS. THIS SERIES OF WEBINARS WILL FOCUS PRIMARILY ON SILVER IMAGES
ORGANIC DYES BECAUSE THEY REALLY DOMINATE THE COLLECTIONS.
I LOVE THE QUIZ THAT WE TOOK.
IT WAS GREAT FOR ME.
GAVE ME A SNAPSHOT.
KRISTEN WILL CONTINUE TO INCLUDE THOSE AS WE DRILL DOWN AND BETTER UNDERSTAND YOUR COLLECTIONS.
PLATINUM PRINTS WERE PRODUCED IN THE TURN OF THE 19th CENTURY WELL INTO 1925.
THE IT'S RARE TO FIND PHOTOGRAPHS THAT ARE COMPRISED OF GOLD BUT THAT IS POSSIBLE.
AND IRON SALTS, THE CYAN KNOW TYPE WHICH MANY OF YOU MAY, IN FACT, HAVE.
IF NOT IN YOUR PHOTOGRAPHIC COLLECTIONS CERTAINLY IN YOUR ARCHITECTURAL DRAWING COLLECTION.
SO WE WILL TALK MORE ABOUT BASIC PRESERVATION ADVICE AND THE NEED TO HOUSE COLLECTIONS AND GOOD QUALITY ENCLOSURES IN BOXES FOR PROTECTION AS YOU SEE HERE.
WE'LL TALK MORE ABOUT CONTROLLING THE ENVIRONMENT AND TEMPERATURE IN USE OF COLD
STORAGE FOR THOSE MATERIALS THAT ARE PARTICULARLY VULNERABLE SUCH AS CELLULOSE ACETATE OR CELLULOSE NITRATE FILM OR COLORED MATERIALS.

THIS IS GRETA AGAIN WHO HAS BEEN ONLINE ANSWERING YOUR QUESTIONS, YOU CAN SEE HER HERE AT THE LIBRARY OF CONGRESS WHERE SHE’S FINISHING UP HER THIRD YEAR OF STUDY IN OUR GRADUATE PROGRAM WHERE THE COLD STORAGE FACILITY AT THE IMAGE FOUNDATION IN BEIRUT LEBANON WHERE I'VE HAD THE GREAT PRIVILEGE TO WORK FOR MANY YEARS IN A PROJECT THAT I HOPE TO TALK TO YOU ABOUT AND THE FINAL WEBINAR, OUR WORK IN THE PRESERVATION OF PHOTOGRAPHIC QUESTIONS THROUGHOUT THE MIDDLE EAST.

IT'S IMPORTANT TO MONITOR LIGHT LEVELS.

AND WE'LL TALK A BIT ABOUT EXHIBITION AND NOW WITH THE BETTER IMAGE IN NEW JERSEY IN MONITORING PHOTOGRAPHS ON DISPLAY.

LIGHT DOES CALL PHOTOGRAPHS TO DETERIORATE AS WE'VE MENTIONED
QUITE A BIT ABOUT RELATIVE HUMIDITY AND TEMPERATURE BUT NOT SO MUCH ABOUT LIGHT. SILVER IMAGES DON'T NECESSARILY FADE BUT BINDER LAYER CAN S YELLOW. DYE IMAGES CAN FADE AND PAPER SUPPORTS CAN BE'M BRITTLED AND DETERIORATE ANOTHER WEB SITE THAT'S VERY IMPORTANT FOR ALL OF YOU IS THE AMERICAN INSTITUTE FOR CONSERVATION WEB SITE. HERE I URGE YOU TO REFER TO THE A.I.C.R. PROFESSIONAL ORGANIZATION IN THE UNITED STATES FOR ADVICE FINDING A CONSERVATOR BECAUSE IT WILL BE IMPORTANT AS MUCH AS WE'LL TRY TO COVER YOUR CONCERNS AND CHALLENGE IT WILL BE MOST USEFUL FOR YOU TO CONNECT WITH A PHOTOGRAPHIC CONSERVATOR WHERE YOU CAN AND THE A.I.C. WILL HELP YOU FIND CONSERVATORS IN YOUR REGION THROUGH THEIR REFERRAL SERVICE. THERE'S LOTS OF OTHER GREAT INFORMATION ON THAT WEB SITE AS WELL, BROCHURES ON GENERAL INFORMATION ON CARING FOR
PHOTOGRAPHS YOU MAY WISH TO JOIN
THE A.I.C. TO LEARN MORE ABOUT
THE FIELD OF CONSERVATION AND I
URGE YOU DO SO.

ANOTHER BASIC AREA THAT WE'LL BE
TALKING MORE ABOUT IS AN AREA
NEAR AND DEAR TO ALL OF US AND
THIS IS THE NEED TO PROTECT
THESE MATERIALS FROM NATURAL AND
MAN MADE ENERGIES AND DISASTERS.
THIS IS A PHOTOGRAPH FROM
HURRICANE SANDY AND --
SUPERSTORM SANDY, PRIVATELY
OWNED AND YOU CAN SEE IT'S VERY
BADLY DAMAGED AND IT'S
INTERESTING TO NOTE THAT THE
POOR PEOPLE WHO SUFFERED THROUGH
THAT SUPERSTORM HURRICANE MANY,
MANY MONTH AGO ARE STILL GOING
BACK TO THEIR HOMES TO TRY AND
RECOVER THEIR PHOTOGRAPHIC
COLLECTIONS.
WE'LL TALK ABOUT WHAT YOU CAN DO
TO PROTECT THESE MATERIALS
AGAINST DISASTERS AND CERTAINLY
THE NEED TO HANDLE THESE
MATERIALS CAREFULLY IS IMPORTANT
AS WELL.
PROPER HANDLING TO PREVENT
UNNECESSARY DAMAGE IS REALLY KEY
TO THE PRESERVATION OF THESE COLLECTIONS.
OH, I'M SORRY, THAT DIDN'T BOUNCE UP.
HERE YOU SEE A GREAT EXAMPLE OF A VERY, VERY EARLY PHOTOGRAPH.
IN FACT, THIS IS A PHOTOGENIC DRAWING, ONE OF THE EARLIEST PHOTOGRAPHIC PROCESSES, A SILVER IMAGE FROM THE METROPOLITAN MUSEUM OF ART WHICH IS BAG HANDLED, AS IT SHOULD BE, WITH GLOVES AND SO YOU WANT TO BE SURE THAT IN YOUR INSTITUTION AS WE FOCUS ON THESE BIGGER ISSUES OF PRESERVATION THAT YOU'RE THINKING ABOUT WHAT A -- WHAT ARE THE HANDLING PRACTICINGS AND POLICIES, EMERGENCY PLANNING POLICIES, EXHIBITION POLICIES THAT YOU HAVE IN PLACE IN YOUR INSTITUTION.
FINALLY, THIS IS ONE OF MY FAVORITE IMAGES, REALLY.
THIS IS MY GRANDMOTHER WHO PASSED AWAY A NUMBER OF YEARS AGO BUT AT THE AGE OF 106 AND GRANDMA, WHAT DID SHE LOVE TO DO?
SHE LOVED TO LOOK AT HER
PHOTOGRAPHIC MATERIALS AND TO TACK ABOUT HIS WHO THESE PEOPLE ARE.
AND THIS HARKENS BACK TO ABOUT WHY IT’S SO REWARDING AND SUCH A WONDERFUL FIELD TO BE ENGAGED IN.
THAT IS THE CONNECTION OF THESE MATERIALS TO HUMANITY AND DON'T LEAVE GRANDMA IN THE ATTIC IS SIMPLY A REMINDER THAT WE NEED TO PROTECT THESE MATERIALS FROM FLUCTUATING ENVIRONMENTAL CONDITIONS THAT YOU FIND IN BASEMENTS AND ATTICS.
HIGH TEMPERATURE, HIGH RELATIVE HUMIDITY AND LIGHT POLLUTANTS FOR HANDLING EMERGENCIES AS WELL.
THE SO KRISTEN, I’LL TURN THIS OVER TO YOU JUST TO SEE IN THE TIME REMAINING WHAT QUESTIONS WE MIGHT HAVE THERE IS HOME WORK ASSOCIATED WITH THIS SEMINAR, AS I BELIEVE THERE WILL BE AT THE VERY END.
AND EXPLAIN THAT A BIT.
BUT KRISTEN, ARE THERE ANY QUESTIONS THAT YOU THINK I COULD ADDRESS AT THIS POINT?
>> YEAH, ACTUALLY, WE HAVE A NUMBER OF GREAT QUESTIONS SO I JUST WENT AHEAD AND PULLED UP YOUR HOME WORK SLIDE WHICH IS TO ASKED ASK YOU TO IDENTIFY THREE PRESERVATION CHALLENGES ASSOCIATED WITH YOUR PHOTOGRAPHIC COLLECTION AND WHAT STRATEGIES FOR IMPROVEMENT MIGHT BE AND THURSDAY'S HOME WORK TO GIVE YOU A PREVIEW, DEBBIE AND I WERE DISCUSSING HOW CAN YOU DO IDENTIFICATION WITH THE GRAPHIC ATLAS SO THAT WILL YOIF YOU A CHANCE TO INVESTIGATE THAT SITE A LITTLE BIT MORE.

DEBBIE, WHILE WE'RE ANSWERING QUESTIONS I WANTED TO JUST PULL UP THE LINK TO THE HOME WORK AND YOU'LL FIND THAT ON THE COURSE WEB PAGE AND FOR THOSE OF YOU WHO HAVE BEEN WATCHING WITH COLLEAGUES TODAY WE WANT TO GIVE YOU CREDIT FOR PARTICIPATEING SO TELL US WHO YOU'RE WATCHING WITH.

WE SAW YOU IN OUR ATTENDANCE BOX WHICH YOU CAN'T SEE BUT WE CAN SEE.
WE HAD 316 OF YOU TODAY.
SO I THINK IN YOUR LAST BIT IF YOU TALK ABOUT HANDLING WITH COTTON GLOVES AND YOU MENTIONED HANDLING DURING A DISASTER AND THAT HAD COME UP IN THE CHAT MAYBE USING VINYL LATEX GLOVES IN THAT CASE.

>> CHRIS TEN, ARE YOU ASKING ME -- ASK ME AGAIN WHAT YOU WANT ME TO ADDRESS?

>> YOU MENTIONED COTTON GLOVES ARE APPROPRIATE FOR USE. PES SPECIALFULLY A DISASTER SITUATION, WOULD YOU GO AWAY FROM COTTON IN THAT CASE?

>> LET ME ANSWER THAT.
I JUST HAVE TO TELL YOU I WAS BECOMING TOO AMBITIOUS AND I STARTED TRYING TO CHAT WITH YOU AS KRISTEN WAS SPEAKING. IN A DISASTER, GOSH, THINGS ARE SO DIFFERENT IN A DISASTER SITUATION, HONESTLY.

YOU DO YOUR BEST TO RESPOND IN A LOGICAL WAY AND IN A DISASTER SITUATION GLOVES ARE IMPORTANT NOT REALLY ONLY TO PROTECT THE PHOTOGRAPHS BUT MORE IMPORTANTLY TO PROTECT YOU.

YOU'RE DOING WHAT YOU CAN TO BE
AWARE OF HEALTH AND SAFETY
ISSUES AS WELL.
WE RECOMMEND GLOVES MAY NOT BE
HANDLING GLASS PLATE AS YOU
DON'T GET A SENSE OF THE WEIGHT
AND THE FRAGILITY OF THE
MATERIALS.
YOU CAN HANDLE GLASS PLATE
NEGATIVE WITH YOUR HANDS.
MAKE SURE THEY'RE WASHED AND
DON'T TOUCH THE SURFACES.
HANDLE THE EDGES ONLY.
SO SOME OF THIS DEPENDS ON
INDIVIDUALS, THE KINDS OF
PROCESSES, THE SITUATIONS YOU
FIND YOURSELF IN BUT FOR
EMERGENCIES AND DISASTERS WEAR
GLOVES BUT THIS IS TO PROTECT
YOU AND ALSO PERHAPS IN SOME WAY
TO PROTECT THE PHOTOGRAPHS.
WHEN YOU FIND YOURSELF IN THESE
SITUATIONS, YOU REALLY HAVE TO
BEGIN TO JUST TRIAGE AND THINK
ABOUT WHAT CAN BE DONE, WHAT
NEEDS TO BE DONE NOW, WHICH
PARTS OF THE COLLECTIONS ARE
MOST IMPORTANT, WHAT CAN BE
RECOVERED.
WHERE CAN YOU GO FOR HELP?
IDEALLY OFF DISASTER PLAN IN
PLACE SO THIS IS SOMEWHAT
ESTABLISHED AND YOU GET A BETTER
SENSE OF WHAT TO DO, YOU DON'T
WANT TO BE PLANNING AT THE TIME
OF A DISASTER.
I WON'T BE TALKING ABOUT
DISASTER PLANNING BUT THERE WAS
KRISTIN I BELIEVE A WHOLE SERIES
OF WEBINARS ON DISASTER PLANNING
LED BY A VARIETY OF WELL KNOWN
INDIVIDUALS IN THE FIELD AND YOU
CAN GO BACK AND REPLAY THAT.
AND PLEASE DO SO BECAUSE AS WE
SPEND ALL THIS TIME TALKING
ABOUT THE PRESERVATION OF
PHOTOGRAPHIC MATERIALS I WANTED
TO BE CERTAIN THAT YOUR
COLLECTIONS ARE WELL PROTECTED
FROM POTENTIAL EMERGENCIES AND
DISASTERS WHERE THEY'RE
LOCALIZED OR MORE BROAD-BASED
>> WE JUST HAVE TWO MINUTES.
I'VE GOT YOUR QUESTIONS AND I
THINK THEY WILL BE ADDRESSED IN
FUTURE WEBINARS AND WE WILL MAKE
SURE -- GRETAL'S BEEN GREAT AT
GETTING AT MOST OF THEM BUT
WE'LL MAKE SURE DEBBIE KNOWS
ABOUT THEM AND CAN DEFINITELY
WORK THEM INTO HER FUTURE
I GUESS THERE WAS A GREAT QUESTION I HAD THAT WHEN YOU HAVE HISTORIC NEGATIVES, SHOULD THAT BY BE REPRINTED TODAY USING DIFFERENT METHODS? CAN YOU DO THAT OR ANY OTHER ADDITIONAL INFORMATION?

>> THAT'S A GOOD QUESTION AND I WON'T -- ALTHOUGH I WON'T BE TALKING OVER THE COURSE OF THIS SEMINAR ABOUT HOW TO DO THAT I WOULD SAY YES THEY CAN AND OFTEN THEY SHOULD BE REPRINTED OR AT LEAST DIGITIZE SOMETHING SO THESE IMAGES CAN BE AVAILABLE FOR SLARSHIP, FOR RESEARCH, FOR USE. NEGATIVES ARE HARD TO EXAMINE. THEY ARE PROBLEMATIC IN TERMS OF PRESERVATION SO MANY INSTITUTIONS ARE LOOKING AT PROCESSES FOR DIGITIZING THESE COLLECTIONS AND FOR FROM THE DIGITAL NEGATIVE YOU CAN MAKE A DIGITAL PRINT. IN TERMS OF ACTUALLY USING THE NEGATIVES FOR PRINTING, PHYSICALLY PRINTING USING CONTACT PRINTING PROCESS I WOULD ADVISE AGAINST THAT BECAUSE OF
THE SFRA FRA JILLTY OF THE NEGATIVES.
BUT YOU CAN MAKE A FACSIMILE NEGATIVE OR COPY NEGATIVE AND FROM THAT YOU CAN DO PRINTING.
YEARS AND YEARS AGO THIS WAS THE TECHNIQUE FOR DUPLICATING COLLECTIONS, TO REPRINT THEM CAREFULLY AND IT'S SOMETHING THAT'S DONE BUT NOT NECESSARILY SOMETHING I WOULD RECOMMEND.
MORE IMPORTANT TO DIGITIZE THEM AND MAKE THESE COLLECTIONS AVAILABLE ONLINE FOR SCHOLARSHIP AND RESEARCH AND VISIBILITY AND PROMINENCE BUT PLEASE ALSO BE CERTAIN TO PRESERVE THE ORIGINAL.
THE DIGITAL COPY IS NOT NECESSARILY THE PRESERVATION COPY BUT IT'S SOMETHING YOU'RE PRODUCING FOR ACCESS.
HOW'S THAT?
$I THINK THAT'S VERY HELPFUL AND WE HAVE A GOOD CHECK GOING ON ABOUT SCANNING AND GRETA NOTING THAT IT'S BETTER TO SCAN THE IMAGE FACE UP WHICH IS CHALLENGING FOR SOME FOLKS.
BUT WE WON'T GET INTO A LOT OF
INFORMATION ON DIGITIZING IN THIS COURSE BUT WE WILL AT LEAST TRY TO FIND GOOD RESOURCES THAT WE CAN LINK TO ON THE COURSE WEB PAGE.

>> AND LET ME ALSO SAY TO ALL OF YOU-- THIS IS GREAT TO HAVE SUCH A LARGE GROUP THESE KINDS OF QUESTIONS HELP. AND IT'S CLEARLY AN IMHOE PRESENT ON YOUR MINDS AND IF WE DON'T COVER HIT IN THE DIGITIZATION WORKSHOP, WHICH WE MAY, BUT IF NOT WE CAN BEGIN TO DEVELOP SESSIONS THAT ADDRESS SOME OF THESE TOPICS VERY SPECIFICALLY WITH THE SO IT'S GOOD TO KNOW WHAT ARE THE NEEDS OUT THERE.

I WANT TO BE CERTAIN AS YOU DIGITIZE THESE COLLECTIONS YOU'RE (INAUDIBLE) GREAT, THANK YOU FOR SAYING THAT.

THERE'S A LOT OF INTEREST IN TALKING ABOUT ALBUMS SO WE NEED TO WRAP UP FOR TODAY BUT I WILL MAKE SURE ALL OF YOUR QUESTIONS ARE NOTED. WE WON'T BE REPLYING TO THEM IN WRITING BUT I'M CERTAIN THAT
DEBBIE CAN GET TO THEM.

>> KRISTEN, CAN THEY -- I'M NOT EVEN SURE IF THIS IS POSSIBLE BUT THINK K THEY STILL SEND IMAGES OR IS IT TOO LATE TO DO THAT? I'M THINKING IF WE HAVE ALBUMS AND THEY WANT TO SEND ME SOME -- NOT SEND SOME -- I DON'T KNOW WHERE THEY WOULD SEND SOME.

>> I THINK GRETA HAS SHARED HER GMAIL ACCOUNT AND I WILL PUT IN THE CHAT OUR GMAIL ACCOUNT JUST BECAUSE GMAIL CAN HANDLE LARGER ATTACHMENTS THAN OUR INFO AT HERITAGE PRESERVATION SO I'LL NAUGHT IN THE CHAT IN THE A FEW MINUTES. OR JENNY CAN.

AND, YEAH, THAT WOULD BE FINE. WE'RE HAPPY TO CHANNEL THAT TO YOU.

>> AND I COULD SORT OF -- IT'S FUN WHEN I CAN PUT IN IMAGES AND BE MORE SPECIFIC IN OUR RECOMMENDATIONS THAT ARE EXACTLY THE KINDS OF CHALLENGES YOU'RE FACING.

>> I JUST WANTED TO NOTE, MARGARET FROM RALEIGH, NORTH
CAROLINA, HAD SENT A THE FEW IMAGES AND I THINK -- I DON'T KNOW EXACTLY HOW YOU THE (INAUDIBLE) BUT THEY WERE IMAGES ON GLASS NOT AGAINST GLASS. THERE'S A HUGE VARIETY OUT THERE WE'LL ADDRESS THAT AT SOME POINT I PROMISE. AND LIGHT SHINES THROUGH THEM. YOU SAW THAT IN THE VICTORIAN TIME WHEN THEY BEGAN TO THE EXPERIMENT WITH TRANSPARENCY OF GLASS IN WINDOWS AND THAT MAKES SENSE BECAUSE THEY'RE IN THE MUSEUM OF NATURAL SCIENCES WHERE YOU BEGIN TO SEE THESE CLEVER SHIFTS AND CHANGES SO WE'LL BE SURE TO GET THAT RIGHT. >> WELL THANK YOU SO MUCH. WE LOOK FORWARD TO SEEING YOU AT 1:00 P.M. EASTERN ON THURSDAY. >> LET US KNOW HOW WE'RE DOING. THIS IS SORT OF THE RIGHT PACE. I'M USED TO HAVING AN AUDIENCE IN FRONT OF ME AND TIPS, THOUGHTS YOU HAVE IS ABSOLUTELY -- (INAUDIBLE) THANK YOU SO MUCH.