I am delighted to be able to discuss my online archive in the context of this conference on digital art history. My resource is different from the others presented here, in that it is the creation of one individual. As my title indicates, it grew out of my own research; and I am the one who does all of the photography, and web site creation and maintenance. This means that the collection of images is smaller and will grow more slowly than many others, though I have just passed the milestone of 3000 photos online. It also means that the archive is idiosyncratic. My research typically focuses on objects like the one in my title slide. This crystal ball is naturally-occurring quartz stone, a luxury material regarded as a gemstone until the modern era. It is small (diameter 2.0-2.3 cm). And it is obscure, being known to few art historians besides me! (For more details, see http://www.kornbluthphoto.com/Abrasax2.html.) The sphere is one of the objects that I am currently studying for a book on early medieval amulets and their Roman precedents.
Among my colleagues I am mostly associated with Carolingian art, and particularly the Susanna Crystal in London. This gem can demonstrate how my archive was transformed from a private resource into a public one.

The stone’s imagery is quite complex, telling the biblical story of Susanna and the Elders in 8 scenes with 41 figures. Starting with Susanna assaulted by the Elders in her enclosed orchard, and her calling for help despite their threats,
it continues through the Elders summoning her to appear, and falsely accusing her of adultery (which they claim to have witnessed).

The Elders’ lies are believed and she is led off to be killed, but the prophet Daniel intervenes.
He examines the Elders separately, and when they ‘remember’ different details of Susanna’s supposed crime, they are convicted of lying and stoned to death.
Unusual aspects of the narrative cycle have led me to see its focus as the legal process (“The Susanna Crystal of Lothar II: Chastity, the Church, and Royal Justice,” *Gesta*, 31 [1992], 25-39). Where Daniel is shown examining the Elders, for example,

two distinct scenes depict not the different trees under which the Elders claim to have seen Susanna with a lover, but rather the different judicial phases of question/answer (with both figures making the gesture of speech) and judgment (Daniel with both hands raised). In the center of the gem, where Susanna gives thanks for her deliverance, an official judge is added to the biblical narrative.
An inscription around the scene, both unusual for its time and unusually prominent, states that Lothar King of the Franks (Lothar II, reg. 855-69) ordered the gem made. The king was claiming for himself the Christian royal virtue of Just Judgment, a claim widely disputed in his day.

What first made me want to study this stone was the survival of sketch marks around many of the engraved figures, marks that showed where the artist had changed the design as it developed.
Here, for example, the positions of feet were quite dramatically shifted, and the head in the scene below was lowered. Since the original sketching was not obliterated by deeper engraving, it enabled me to analyze the tools and techniques used in the stone’s production (Engraved Gems of the Carolingian Empire [University Park: Pennsylvania State University Press, 1995]).

Such sketching, on this and related gems, was quite important to my research, but I soon discovered that it was not visible in available photographs.
It is of course unfair to compare my image to one scanned from a book. I do so here only to make a general point, and because the book in question is the one that introduced me to this object in an undergraduate course.

Needing photographs that I could not otherwise obtain, I learned to make them myself. While teaching art history for over two decades, I continued to photograph the objects that I studied and to use the images in my own publications. Occasionally my colleagues published them as well.

Things change, and in 2009 I was contemplating a departure from academe. As I pondered, I got a totally unexpected message. Abigail Firey, a scholar I did not know, had written a book on Carolingian justice and wanted to illustrate it with images of the Susanna Crystal. Photographs from the British Museum did not show what she wanted. She asked whether she could license mine for publication.
Her request gave me the stimulus I needed to make the leap. I stopped being an art historian who also did photography, and became a photographer who also does art history.

At that point, relying on queries from strangers who read my scholarly work began to seem like a poor business plan. I created a web site with three principal aims: 1) commercial—to inform the public that I am available for photographic work on commission, to demonstrate my photographic skills, and to let anyone needing images of art works know what I have shot already and have available for license; 2) educational—to make my archive available to academics and other educators for discussion of the visual arts and historical cultures; and 3) popularizing—to introduce the material culture that I find so compelling to a wider public.
With these aims in mind, I explicitly permit educational and other non-commercial usage of all of my images. This policy accords with the rules of most museums that allow photography; I do not post images that would violate the terms I have agreed to with object owners. Photographs on my site are generally 648 pixels high, sized to project well or to fill a computer screen while being too small to print well in hard copy. Licensing fees for publication and commercial use should eventually cover the cost of maintaining and expanding the archive.

Popularization seems to be well under way. As web statistics tell me, my photographs now routinely appear on a great many other sites. While I have no idea why they appeal to pornographers, or how they help support conspiracy theories about Whitney Houston’s death, most have found good homes. Sometimes I am even given credit and the site link that I require without having to insist.
This Russian site actually summarizes my argument about the Susanna Crystal quite well, popularizing my scholarship as well as the object.

Such scholarship has produced the core of my archive. In addition to studying Carolingian intaglios, I have focused on a variety of other types of objects, and all of these are now represented online. Many such objects, like the Roman game piece below, are unpublished, and as far as I know their images are unavailable elsewhere.
I have also photographed many objects that do not directly figure in my research. Since my subjects are widely distributed, I have travelled a great deal in Europe and America. Of necessity, I have brought my camera equipment along. Being in interesting places with camera in hand, I have taken each opportunity to photograph what was available. Frequently, curators have been willing to remove a few extra objects from display for me. This means that my archive contains quite a bit of material from places far from the standard tourist routes, e.g. the arm band below now in Kaposvár.
Besides such serendipitous finds, I have also made a point of shooting objects in the art historical canon, from all periods.

Like most academics, I have been responsible for teaching quite a few courses on material far from my research field. And in teaching as in research, I have often found available images unsatisfactory.
Photographs like the one above are available from many sources. Harder to find are those that give a reasonable sense of scale, or that show just how high relief might be.

I often include people in my photographs, in positions carefully chosen to preserve their privacy. I also crouch on floors, lean against walls, and contort myself into other undignified poses in order to shoot the backs, sides, and other non-standard views of objects. And if I know that a given detail is mentioned in the major survey text books (like the sculptor’s differentiation between a bestial centaur and a rational, self-controlled man), I make a point of photographing that as well.
Like the Parthenon Lapith, I generally have a rational basis for choosing one course of action over another. But sometimes, like the centaur, I too just give in to transient impulses. Some objects in my archive were photographed simply because they caught my attention. I enjoy oddities.
Now that photography has become my “day job”, commissions also determine what I shoot. Whenever permitted, the results of such work join the rest in my archive. Recently, for example, I photographed many thirteenth-century panel paintings in central Italy.

Cimabue, Crucifixion 1268-71
church of San Domenico, Arezzo

Though produced for an art historian making a specific detailed study, such images may well have broad appeal. Other objects are of the sort that only an early medievalist could love.
Though not overwhelmingly beautiful, the original wax seal impression on a Merovingian royal charter is historically quite important, and getting access to it is very difficult. Perhaps that is why someone decided to appropriate my image, posting it to Wikimedia as a work in the public domain and free for any use.
As you see on the right, he or she carefully sliced my copyright marking off the top of the photograph before doing so. The administration of Wikimedia responded very quickly to my complaint, immediately removing the image from their site. But this episode, annoying as it was, alerted me to the need to be more careful about copyright notation. Most photographers who depend on income from their images place their names in large and intrusive letters across the center of each one posted online. I refuse to follow suit, because I do not want to interfere with educational use. Instead I put my copyright note on each individual image where it will not obstruct the object, but will still be at least inconvenient to remove. I vary the brightness and color of the letters to be as unobtrusive as possible while retaining visibility.

The above overview should give you some sense of how my digital archive developed out of my own research and teaching. At this point I would like to take advantage of the possibilities of online publication, and direct you to the archive itself. Below you will find links to specific web pages, interspersed with my commentary.

To view the site most easily in conjunction with this text, open http://www.KornbluthPhoto.com in a separate window. Further links will be listed below, but to avoid having to re-load this PDF, simply click within the site window.

As you will immediately notice, my web site is built of static pages, not internally searchable as a whole. Searchability may one day become an internal feature, but for the moment the site employs what I have personally learned to do: static HTML. Since it is part of my photography business, my home page is designed to highlight what I can do for owners of objects. On the left are links to the usual pages where I say something about myself and how to contact me. At the ‘Photographic services’ link
you will find a discussion of what I can do, and a further link to [http://www.kornbluthphoto.com/Services2.html](http://www.kornbluthphoto.com/Services2.html), a page with examples of digital correction and restoration (both pages to be updated soon). Most other links lead to sections of my photographic portfolio. Within that portfolio, for example, ‘Miniature sculpture’ will connect you to [http://www.kornbluthphoto.com/sculpture-1.html](http://www.kornbluthphoto.com/sculpture-1.html) with photographs of a watch fob and a spindle whorl. In the portfolio area of my site, thumbnails on the right lead to different objects, and those at the bottom of the page lead to different views of the chosen object.

The link to my historical archive is on the left, between the clusters Home/Contact and Photographic Portfolio. Clicking on the archive link will take you to its index, [http://www.kornbluthphoto.com/archive-1.html](http://www.kornbluthphoto.com/archive-1.html). The index should allow you to locate anything in the archive, and as I suggest at the top, if you have trouble finding an image that you need or want one that is not yet online, feel free to contact me!

The headings in the main index and on all subsidiary index pages are designed to be useful to both art historians and people with different areas of expertise. Terms are therefore defined that will seem standard to you, but that are unfamiliar to others.

Before looking at the major divisions, I should point out the link to ‘Abbreviations’ at the bottom of the index ([http://www.kornbluthphoto.com/abbreviations.html](http://www.kornbluthphoto.com/abbreviations.html)). When I undertake a major redesign of my web site, the abbreviations page or the information within it will be directly accessible from every part of the archive. At the moment, however, you will find this link only on the main index page (always accessible by clicking on ‘Indexed Historical Archive’ on the left). In order to avoid over-long captions, I normally abbreviate the names of institutions where objects are located. Some abbreviations (BM, Pushkin) will be familiar, but others may not be (HNM: Hungarian National Museum, Budapest; WLM: Württembergisches Landesmuseum, Stuttgart). In the abbreviations list you will also find full information about catalogues whose numbers are used within the archive, and when available links to online versions of those catalogues (e.g. Chab.: Anatole Chabouillet, *Catalogue général et raisonné des camées et pierres gravées de la Bibliothèque impérial*, 1858).

Returning to the main archive index ([http://www.kornbluthphoto.com/archive-1.html](http://www.kornbluthphoto.com/archive-1.html)), the top link leads to classifications by historical culture or period ([http://www.kornbluthphoto.com/PeriodIndex.html](http://www.kornbluthphoto.com/PeriodIndex.html)). This is probably the index most useful for teaching art history, because it reflects the most common divisions among course offerings. Although my archive is strongest in Roman and medieval cultures, it ranges from the Neolithic (and very soon, Paleolithic) to the twentieth century. Each period or culture is subdivided by medium or genre in order to avoid over-large pages that load slowly. One of my major research areas, for example, ‘Continental late 8th to late 10th c.: Carolingian period’ ([http://www.kornbluthphoto.com/Carolingian1.html](http://www.kornbluthphoto.com/Carolingian1.html)) has nine divisions. The ‘Metalwork’ page ([http://www.kornbluthphoto.com/Carolingian3.html](http://www.kornbluthphoto.com/Carolingian3.html)) offers little-known reliquaries as well as the famous equestrian figure of a ruler. When I have 5 or more images of a single object, that object is linked to its own page, as the equestrian figure is ([http://www.kornbluthphoto.com/CarolingianRider.html](http://www.kornbluthphoto.com/CarolingianRider.html)). Such individual pages allow me to provide
more information than will fit in a caption, so I can let the viewer know, e.g., that my photograph is correctly oriented and the comparable image provided by the Louvre is reversed.

The next link in the archive index, the ‘Chronological Index’ ([http://www.kornbluthphoto.com/ChronologyIndex.html](http://www.kornbluthphoto.com/ChronologyIndex.html)), disregards cultural divisions. Unlike the period index, it therefore references no works that cannot be dated, but rather facilitates cross-cultural studies. The eighteenth-century page ([http://www.kornbluthphoto.com/EighteenthCentury1.html](http://www.kornbluthphoto.com/EighteenthCentury1.html)), for example, brings together Chinese rock crystal, a Russian coffee pot, and a French toy guillotine made of bone.

Continuing with the archive index page, the ‘Iconographic Index’ ([http://www.kornbluthphoto.com/IconographicIndex.html](http://www.kornbluthphoto.com/IconographicIndex.html)) will be of most use to those interested in variant depictions of a given subject. Most sections develop chronologically, allowing easy assessment of changes in representation over time. Among ‘Objects Depicted’ (5th category, [http://www.kornbluthphoto.com/ImagesObjects.html](http://www.kornbluthphoto.com/ImagesObjects.html)), for example, ships and boats ([http://www.kornbluthphoto.com/Ships.html](http://www.kornbluthphoto.com/Ships.html)) range from a papyrus boat with Osiris to the USS Saratoga on a postage stamp. A few unusual pages within the area dedicated to Christianity and Judaism (iconographic index first link, [http://www.kornbluthphoto.com/ChristianityJudaism.html](http://www.kornbluthphoto.com/ChristianityJudaism.html)), suggested by colleagues in religious studies, are organized differently. Scenes from the Hebrew Bible illustrated in Christian contexts (Christianity/Judaism second link, [http://www.kornbluthphoto.com/OldTestament.html](http://www.kornbluthphoto.com/OldTestament.html)) follow the order of the Douay Bible. Thus a sixteenth-century Temptation of Eve precedes a sixth-century mosaic of Moses and the Burning Bush. On several other pages individual saints are indexed alphabetically, to accommodate those who study hagiography.

In a section indexing animals and plants (iconographic index 4th category, [http://www.kornbluthphoto.com/AnimalsVegetation.html](http://www.kornbluthphoto.com/AnimalsVegetation.html)), normal animals are differentiated from fabulous beasts and hybrids. Links lead to separate pages for many creatures, both normal (dogs, horses, lions…) and fabulous (centaurs, gryphons, mermaids…). Plants are indexed only when they constitute major individual elements of a composition, so flower-strewn meadows and decorative vinescrolls are not included, but Tiffany grape vines are. An index of persons (iconographic index 6th category, [http://www.kornbluthphoto.com/Persons.html](http://www.kornbluthphoto.com/Persons.html)) gives access to personifications as well as to historical rulers, ecclesiastics, and ordinary people. Probably the most unusual part of the iconographic index is dedicated to ‘Human Activities’ (last category, [http://www.kornbluthphoto.com/HumanActivities.html](http://www.kornbluthphoto.com/HumanActivities.html)). Ubiquitous actions like praying and speaking are of course omitted, but dancing, fighting animals and other humans, nursing, reaping, teaching, and more all have their place here.

An index by medium (archive index 4th link, [http://www.kornbluthphoto.com/MediumIndex.html](http://www.kornbluthphoto.com/MediumIndex.html)) makes it possible to trace the historical uses of ivory, bronze, sapphire, marble, and many other materials. Another by genre (5th link, [http://www.kornbluthphoto.com/ObjectTypeIndex.html](http://www.kornbluthphoto.com/ObjectTypeIndex.html)) includes most different types of objects represented in the archive. ‘Architectural sculpture no longer on [or in] its buildings’ (6th category) is separated from ‘Architecture and its associated media in situ’ (5th category,
Most buildings in the latter division are linked to pages of their own. In some locations, as at the Parisian church of St. Julien le Pauvre (row 4, http://www.kornbluthphoto.com/StJulienPauvre.html), I was allowed to photograph at leisure, with a tripod. In others, as in Sant'Apollinare Nuovo in Ravenna (row 2, http://www.kornbluthphoto.com/SantApollinareNuovo.html), I worked under the same conditions as any other tourist. Happily, digital photography and processing now make the production of good images possible under such circumstances. A participant at the Princeton conference asked me whether I edit my images, and I responded that I do when editing yields a clearer and more useful photograph. My images of Sant'Apollinare Nuovo demonstrate the kind of editing that I employ. Most human viewers will automatically correct for parallax when looking at a narrow building, but a camera will not. In post-processing, I do. The ends of the church’s mosaic friezes are less well illuminated than the parts near the center of the nave. Human eyes adjust for the variable light levels in a single view from one end of the interior to the other, but a camera does not. I brighten and darken different parts of the image to make all parts visible at once, as they are on site. And sometimes I produce an artificial image to show what is difficult or impossible to perceive in person. My image of the full mosaic frieze on the north wall, posted in two sizes in rows 3 and 4 of the Sant'Apollinare Nuovo page, is a digital composite made from many separate exposures, each shot from a point directly opposite one portion of the frieze. Stitched together, those separate photographs form a single image of the full mosaic seen straight on, a view not possible in the church because the south side of the building blocks any distant vantage point.

An index of present locations (archive index 6th link, http://www.kornbluthphoto.com/LocationIndex.html) allows users of the archive to determine what I have posted from any given country, city, or institution. This is also the place where I separate out objects from private collections (last locations category, http://www.kornbluthphoto.com/PrivateCollections.html), material that is often unknown to the scholarly community. This section will soon be greatly enlarged.

A final index lists artists known by name (archive index 7th link, http://www.kornbluthphoto.com/KnownArtistsIndex.html). These pages are alphabetical, and there are unfortunately many names whose alphabetization is ambiguous. I follow the conventions of major publications and institutions, but when confusion appears likely, I will list a given artist in more than one way.

All of my indices are designed to allow users with partial knowledge, as well as professional art historians, to find the images that they need. Please feel free to use my photographs in your own research and teaching, and when you notice a problem or have a question, do get in touch!