

# **Prospects at the Dawn of the Third Millennium: The Use of Computers in Heraldry**

by  
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## Introduction

Here at the beginning of the Third Millennium we have a tool which promises, and indeed, has already begun, to revolutionize the ways in which we see, research, study, share, and create heraldry as much or more than did the invention of Johann Gutenberg's printing press. This tool is the computer.

From the ability to access sources that would otherwise be unattainable, to the educational aspects of worldwide communications, to the ability to quickly and easily compose coats of arms, computers are helping us learn, study, teach, and create works of heraldry.

I will discuss briefly each of three areas where I see current applications and future potential in the use of computers: heraldic research; heraldic education; and the design and publication of armory.

## The Use of Computers in Heraldic Research

Through what is called the digitization of heraldic sources, the making of electronic copies of documents of all kinds, the computer is allowing heraldists the world over to have access to original sources which would otherwise be severely restricted: because of their age and fragility; because of their location in distant places and the resultant expense of travel; because they are located in libraries or museums which have limited access; or because they are located in private collections not open to even the serious researcher and scholar.

Nor am I speaking simply of the resources available only on the World Wide Web, some of which we are able to sample at the Internet demonstrations at the Congress this week. It is possible today to sit at one's computer, without connecting it to the outside world, and in the space of minutes review on CD-ROM:

- black and white line drawings of armory from around the world;
- civic coats of arms of the Ukraine;
- medieval flags captured in the Battle of Gravelines in 1557;

- a 16<sup>th</sup> Century *Liber amicorum* with coats of arms of Knights of the Golden Fleece;
- an illustrated Italian manuscript of heraldic memories from the last half of the 16<sup>th</sup> Century;
- civic coats of arms from all over the world, many with background information;
- Rietstap's *Armorial General*;
- Burke's *General Armory of England, Scotland, Ireland and Wales*; or
- the current peerage of Great Britain.

Not to mention the various articles on heraldry available in the encyclopedias being which are now being distributed on CD-ROM.

Or go "on-line" and research:

- the mid-14th Century Wappenrolle von Zürich;
- a roll of the civic arms of French regions and cities;
- summaries of heralds visitations in England from the late 16<sup>th</sup> and early 17<sup>th</sup> Centuries;
- an armorial of the Knights of the Round Table; or
- the complete transcript of the 1954 *City of Manchester, England vs. Manchester Palace of Varieties* usurpation of arms case;
- civic and personal heraldry in Sweden; or
- a modern digital edition of the 14<sup>th</sup> Century Armorial Gelre,

to name only a handful of the hundreds of sites and topics available now via the internet.

Using the "select" and "sort" features of word processing programs and databases allows one to extract, organize, review, and quantify heraldic data quickly and accurately. Do you want to know, for example, how many coats of arms containing blue lions are found in the 13<sup>th</sup> Century Bigot roll of arms? Within only minutes, you can have the answer. (For those of you who are now consumed with curiosity to know, there are three. It took less than five minutes to sort all the lions out of the roll and to then separate out the blue ones.) This kind of sorting can be done for any of the tinctures or furs, lines of division, charges, postures, or combinations of any of them, that exist.

Do you want to create an ordinary from a roll of arms? Or construct a roll of arms from an ordinary? Organizing the entries to suit your individual research purposes can be done in a matter of minutes (or hours, for material with very large numbers of entries) instead of days or weeks, even for someone with minimal typing and computer skills.

Or, for those who are more visually oriented, it is possible to quickly scan a directory of “thumbnails” (small versions of pictures) and then double-click the computer’s mouse on individual thumbnails to open on the screen the full-size pictures you want to look at in more detail.

In an area which at once overlaps both the research and educational aspects of the use of computers, it is possible to search for, find, and purchase books on heraldry and related topics on the internet and via e-mail. Heraldry Today has made a complete shambles of my budget ever since I found out that they not only had a website, but would take orders via e-mail and would accept credit cards for payment. It used to be that I would have to await their catalogue in the mail, decide what I wanted to buy, go to my bank and get an international draft (and pay the bank a hefty service fee), mail the order, and wait. Often, a book I wanted was sold before my order arrived in England. But now, I can do everything in a single session at the computer. I can review their listing of books on their website, fill in the e-mail order form, and usually the next day they send me an e-mail back telling me the total amount of damage to my credit card and informing me that the books ordered are on their way.

Books on heraldry and related topics may also be found and purchased at other places on the internet, from large booksellers like Amazon and Barnes & Noble to specialists in rare, antiquarian and out-of-print books like Bookfinder, Advanced Book Exchange, and Bibliofind, to the books which appear on one of the many internet auction sites such as eBay, Yahoo, and even Sotheby’s.

### The Use of Computers in Heraldic Education

There are a number of ways in which using computers to aid in heraldic education is being accomplished.

Numerous articles on the topic of heraldry are available on the World Wide Web. These articles include:

- brief introductions and general discussions of heraldry (covering such basics as names of the tinctures and lines of division)
- answers to common questions
- articles on current and historical heraldic practices
- esoteric (and sometimes arcane) discussions of titles, blazon, national or regional heraldic styles, the heraldry of sacred music, and much, much more.

There are also a number of heraldic reference books available online. For example, one can read or search through the full text of James Parker's excellent *A Glossary of Terms Used in Heraldry* (complete with color illustrations), or Baron Stalins' international *Vocabulaire Atlas-Héraldique*, which has features that allow one to type in the name of any line or charge appearing in French, English, German, Dutch, Italian or Spanish and to see the drawing of it, or to look through the pictures of the lines of division and charges and then learn what they are called in any of those languages.

Away from the internet, there are programs which can be run on many computers (rather like a self-paced slide show) which explain the basic terminology of blazon. These programs combine text and color pictures to teach some of the fundamental terms of blazon – the names of the tinctures, furs, lines of division, ordinaries and subordinaries, and so on – or to teach the grammar of blazon in a graphical way.

The computer with access to the World Wide Web and the more specialized Usenet gives one the ability to ask and answer questions on various aspects of heraldry from people all around the world. It has been an education to me to have been able to ask questions of, answer questions from, and participate in discussions with, people I have never met, and probably never will meet, from all over the United States, Canada, England, Scotland, Germany, Sweden, Finland, Russia, Spain, Italy, Australia (and probably more), without ever physically leaving home.

Topics on message boards and in Usenet discussion groups (called newsgroups) include inquiries by people searching for a coat of arms, discussions of blazon or emblazon, critiques of heraldic design, the nobility or noblesse of Scotland, ecclesiastical heraldry, and even why, or whether, eagles in royal heraldry always have two heads. Not to mention titles, orders ancient and modern, the records of the English College of Arms, the functions of the Irish Genealogical Office, which nations

have existing heraldic authorities, and how the treatment of armory and even who can bear coats of arms vary in different countries.

### The Use of Computers in the Design (And Publication/Printing) of Armory

There several ways in which computers are being used to design armory. One is through the use of programs designed specifically to allow computer users to design coats of arms. Some programs, such as Blazon95<sup>©</sup> and Maître d'Armes<sup>©</sup>, allow one to design arms by selecting individual drawings of lines of division and charges and adding them to a blank shield. The programs will then blazon the coat of arms drawn. In other programs, like Blazons!95<sup>©</sup>, one types in a blazon and the program creates the emblazon. All of these programs allow one to create and save coats of arms on the computer, though their size and the relatively limited number of charges in their databases do somewhat restrict what can be created. In spite of their limitations, however, all of them are useful for producing quick visualizations of either existing blazons or new designs.

A second way computers assist in the design of heraldic art is through the use of “clip art”, line drawings of heraldic charges which have been created electronically on the computer or which have been digitized by being scanned in and saved electronically. Such clip art has the advantage for the computer user of being pre-drawn; no real extra work is needed to include it. It is simply copied from the file where it is located into the file being worked on, where it may be resized, reversed vertically or horizontally, rotated or manipulated in other ways, colored in, and then saved or further modified.

Finally, any of a number of graphics programs allow one to design and draw coat armor in ways which are very similar to putting pen or pencil to paper. The differences are that changes to designs can be made, and unmade, very quickly with immediate viewing of the results, and one can fill large areas with color in literally “two clicks of the mouse”, the first to select the tincture and the second to fill the desired area in the picture with the selected tincture. Even comparatively simple, unsophisticated programs such as MicroSoft’s Paintbrush permit this, allowing for simple and fast changes of the arrangement of charges, types of charges, and tinctures used with only a few clicks of the mouse. And, of course, they use up no paper in the process.

Good examples of what can be accomplished by someone “drawing” arms on the computer and utilizing electronic clipart may be found at a number of places on the internet. Some websites displaying quality depictions of coats of arms created on the computer are:

- Steven Madewell’s Amateur Heralds Association ([http://freepages.family.rootsweb.com/~heraldry/page\\_coa.html](http://freepages.family.rootsweb.com/~heraldry/page_coa.html))
- Arnaud Bunel & Luca Gallo’s Armorial Gelre ([http://perso.libertysurf.fr/Armorial\\_Gelre/](http://perso.libertysurf.fr/Armorial_Gelre/)), and
- La Banque du Blason (<http://www.syrtals.com/blason/>)

Now for the big question that I know some of you are, or will be, asking: Will computer art replace heraldic artists? I do not believe so. Photography (faster, requiring far fewer skills and thus more accessible) has not replaced painting. There will still be a market for hand-drawn arms on vellum, rather than by computerized printer on paper. Most computer programs do not (yet) match the quality of work of artists working with pen and brush. But heraldic artists may certainly choose to use computers to aid them in their work, utilizing the machine’s capabilities in ways similar to those in which painters such as Norman Rockwell, Edgar Degas, Alphonse Mucha, Paul Gauguin, Picasso and others have used photography: to visualize the layouts and the interplay of individual elements (tincture, size, posture, placement) of their artwork, before ever putting brush to canvas or vellum.

### Conclusion

These then, are some of ways in which the use of computers today is helping heraldists around the world learn, study, teach, research, and create heraldry. What of the future? As computer capabilities continue to increase, as more heraldic sources become available, as more people acquire and use this electronic tool, we can only look forward to more information, more accessible sources, greater opportunities to acquire knowledge, more interesting discussions, and, yes, even better digital heraldic artwork.

To conclude, for those of you who desire, I have a flyer handout with all of the websites that I have discussed here (plus some others not referred to) and websites or addresses for more information on the CD-ROMs mentioned. Thank you for your interest.