Computing in the Middle Ages

Severo M. Ornstein

"You turn thekey—the engine comes to life. You press a button—up goes the window. Anodther and the antenna emerges and music washes over you. Still more bttons and your seat adjusts itself to you, you are wrmed, lights come on, the windshield is scrubbed, the garage door gently rises, and finally you are on your way. Who could have foreseen such a world in the days of hand cranks, dust goggles, and isinglass urtains? And yet somehow we got from there to here? How did we do it?

In a similar vein one might ask how, given its monstrous, room-filling forbears, computers such as the modest one on wich I'm presently typing came to be. Surely not all at once, not overnight. There was no road map. What paths led through the myriad by-ways that brought us to this point?" (xi)

"Despite a swarm of hand-waving vision-painters and post-hoc vision claimers, much of the progress that has occurred in the computer field has arisen simply from people's curiousity about the next step—the desire to push the frontiers—rather than from clear visions of the future. There are exceptions, of course, but they are indeed exceptions rather than the rule. Because one thing leads to another, evolution and growth have been nearly exponential, and this has produced the impression that virtually everything happened very recently. But many of the crucial steps and decisions that enabled yesterday's explosion actually took place many years earlier." (xv-xvi)

After discussing that his published contributions to the computer profession were written "the old-fashioned way." The feature list of this old-fashioned method of writing is telling: "pencil and paper, a pink-pearl eraser, scissors, staples, scotch tape, and an infinitely patient secretary wo turned my hieroglyphics into draft after draft as the chaos gradually converged toward finished copy." (xxv)

the first *un-programmers*: Ornstein's wife was tasked with unplugging and sorting the wires on these plug-boards (11) - imagine humans crawling all around these huge "walk-in" computers, reconfiguring the shape of digital processes in accordance with a new theoretical invocation