**Paul De Palma:** *Dim Sum for the Mind*

## Introduction

## Most of us don't want a whole meal of chicken feet

Many years ago, I studied Tai Chi in San Francisco's China Town. Each Sunday morning a few friends and I drove to the YMCA on Sacramento Street. We greeted Master Choi (woe to him who did not bow properly) and spent the next two hours in a sort of moving dream as our teacher spoke of chi energy, proper placement of our clumsy feet and hands, and the distribution of authority according to Confucius. In this orderly world, God, I seem to recall, was at the top, followed by the emperor (though Master Choi said we could substitute "president"—then Nixon, who would have been gratified), followed by our parents, and, finally, our teacher, who, of course, was Master Choi himself. After class we went across the street to the Hang Ah Tea Room for dim sum. Urban legend in those days had it that dim sum was invented by an emperor's chef (the emperor, again) who was charged to create as many delicacies as his imagination would permit. If this were my legend, I would borrow from Grimm and Homer and lock the chef in the tower. My chef would be brought the world's pleasures for each day that he created a new dish: food, wine, beautiful music, dancing women with finger cymbals, you get the idea. But should his imagination run dry, the executioner and his axe were waiting just down the hall. Wasn't it Dr. Johnson (he of the dictionary and the definition of the lexicographer as a "harmless drudge") who said something like "knowing that you will be executed in a fortnight concentrates the mind wonderfully?"

The wonders that I found in the Hang Ah Tea Room were surely the product of a concentrated mind. Su mi, pork buns, delicacies in every conceivable combination, and, yes, chicken feet, all brought round on little carts. It was unspeakably exotic. The carts came stacked

with little plates, each with three items. Choose steamed shrimp from this cart, su mi from that one, gamble that pork-filled rice buns will emerge from the kitchen on the next round. This is the kind of meal that appeals to a diner who agonizes over menus. Should I try mussels with marinara sauce or go with the veal that I had last week? Not in the Hang Ah Tea Room. Here, there were no menus, just cart after cart piled high with plates, some familiar after a few weeks, some new each visit. In the Hang Ah Tea Room you could even dare to try chicken feet. They taste as strange as they look? Not to worry. There is always another cart.

I have called this book *Dim Sum for the Mind* to invoke the spirit of the Hang Ah Tea Room. Some of the chapters will seem like chicken feet. Propositional logic? Cryptographic algorithms? Give them a try. They might turn out to be your pork bun. They might, on the other hand, really be chicken feet. No matter. Just pick another chapter. Each is self-contained. I have chosen the topics not because they are hot, though some of them are. I have chosen them not because they give a comprehensive view of computer science. They do not. Above all, I have chosen them not because they are useful. This is not another *Idiot's Guide to* …. Nothing in this book will make you more employable or make your Web browser easier to configure. I have chosen them all for the single reason that each interests me. I hope they will interest you, too.

The chapters do have a rough order to them, however. The first few consider some of the social implications of computing. These go way beyond issues of privacy, a matter important to many people and already thoroughly treated in newspapers and magazines. I confess that I don't worry terribly if someone knows what books I read, a matter being argued, even as I write, before the Georgia Supreme Court. I leave this battle to those more passionate about it and consider, instead, whether computers have been oversold, why even the best software is filled

with errors, and what it is about computer science that drives my female students to the English department.

The second section is a bit more technical than the first. I once heard a story about a mathematician who had taken to telling new acquaintances that he was in the roofing and siding business, so raw is the wound that math courses appear to have inflicted on many of us. I would consider the roofing and siding stratagem too if I knew anything about it, just to forestall another conversation about computing gadgetry. Don't get me wrong. I think the stuff is clever. But the principles underlying the gadgetry are a lot more interesting and a whole lot more fun than web surfing. They are also, if carefully presented, well within the grasp of anyone who would pick up a book like this in the first place. These chapters can be read in any order, or, if they seem too much like chicken feet, not read at all. I urge you to give them a try, though. One simply cannot appreciate the pleasures and pains of computer science without getting her hands dirty.

The final section is more personal than the first two. There is a reason why so many of us have chosen to spend hour after hour manipulating symbols, and it is not because there is money to be made. Law, medicine, business are all more certain paths to comfort than computer science. The field is also peculiar because of its here today gone tomorrow aspect. I have spent months learning programming languages that no longer exist. I once spent a year on a project that was cancelled when the underlying technology became obsolete. I continue to spend hours perfecting lectures based on textbooks whose editions change as feverishly as teenage fashion.

Just as the first two sections include personal material, the final section includes technical material and a social context. I am convinced that all technical innovation is embedded in history, along with the innovators themselves. The social, the technical, the personal play off

one another in any field. In computing, they are woven together in a knot so intricate that even Alexander the Great would be hard-pressed to undo it. Well, I am no Alexander the Great, and lucky for that too. What this knot needs is less a warrior--God, knows, computing has enough of those--than someone willing push a dim sum cart past each table, inviting guests to pick and choose as the spirit moves them. I hope that what you find on these little plates helps you unravel the complexity of computing. Maybe they will even be as much fun to read as they were to write.