

MASONRY SPEECH, JUNE 5, 2000

Good Morning! It is truly a pleasure and honor to stand before you today and share some thoughts about our future. But first, I'd like to welcome all of you from out of town to Louisville. I am a native, and am told that Louisville has the second highest percentage of native-born population of any city in the U.S., and there's a reason; It's a great city, a great community with lots to do and filled with warm, wonderful people. I know you will get the chance to get out and see some of our town, because I've reviewed your Schedule of Events. And what a brutal schedule!

First there was your reception last night, and I understand that some of you may have made it to the gambling boat. Then today, after an exhausting two full hours of business this morning, including my talk, which probably will exhaust you, you will be off to Churchill Downs. Tomorrow you have the Golf Scramble, Belle of Louisville Boat Ride, and Louisville Slugger Museum. You guys will definitely need a break from all of this when you get back home. It is such hard work coming to these kinds of meetings. I should know, because I travel the country quite a bit participating on three different Boards of Directors, and in addition to the incredible amount of learning I've picked up, I've also picked up about fifteen pounds in three years from all of the social activities. But seriously, I congratulate you on your participation here, because the learning that goes on is almost by osmosis. You don't realize it's happening at the time, but the cumulative effect over time is staggering.

I'd like to share a little of what I've gained from my travels and hopefully offer some food for thought about the masonry industry and design and construction in general, and where I think it's all headed.

There is much to celebrate. Work is good, billings are up, and prices are relatively stable. Stewart Rose, a marketing guru who's seminar I attended back in 1989 predicted the current economic boom, and he based his prediction solely on demographic trends, and said it would continue at least into the early years of the new millennium. Just this year, I heard Ed Kirschner, the chief economist and researcher for Paine Webber Investments predict that the DOW will reach 20,000 by the year 2007, and that we will experience continued strong economic growth and an overall bull market until at least sometime about that same year. He too based his analysis very much on demographics, and the maturing of the baby boomers, their growing affluence, and their need to be investing for retirement. And lastly, I had a demographer, Ron Crouch, here at the University of Louisville, come speak to my office about what he sees happening down the road in his analysis of the numbers, and he too predicted strong economic growth until some time around 2010. All of these gentlemen also said things would begin to slow around then, again, because of the aging of the boomers, and the smaller population base following behind. Now, if you believe Mark Twain, who once said that if the world were ending, he wanted to be in Kentucky because everything in Kentucky happens twenty years late, then you could expect our boom in Kentucky to last another thirty years instead of ten. Either way, it's a lot of good news, but there are some things to be wary of as well.

I sit on an advisory Board for DPIC Insurance Company, which insures about fifty percent of all architects and engineers in the US for errors and omissions. For three years running, a large part of the discussion has been about the design profession experiencing this great building boom and trying to cope with more work and fewer qualified staff to do it. And everything in today's society must move faster and faster, constantly placing greater time demands on fewer, and less qualified personnel. Sound familiar? How many of you feel that right now, today, you have adequate numbers of qualified masons to get the work done properly? And worse, if the boom continues, how many of you believe you can find more good craftsmen to support the growth you desire for your companies? Not many, I bet.

Bear with me for a minute while I share some facts and figures, for there is a lot of meaning in these facts, and I stress the word facts. In 1990, the US fertility rate was 71 births per 1000. By 1998, that had dropped to 66 per 1000. Thirty-three of our fifty states had fertility rates that declined, including all of the states in the south. Yes, the overall population of the southern states is increasing, but only due to in-migration, not new births, which are actually declining. Within ten years, 2/3rds of population growth in the south will be from ages 65 and over. What this means is that the available workforce is shrinking, and will continue to decline. For the first time in our country's history, there are more older people than young. In fact, and this is a very important figure, the smallest segment of US population is age 20 to 24. And where do you get most of your labor pool, especially the entry-level pool that eventually feeds your industry long term? I suspect it is this very age group, 20 to 24 year olds. In June of 1999 the Urban Institute published an article that said the entire available workforce would shrink an additional 9% from the years 2010 to 2040. That's only ten years away.

Combine all of these facts about a shrinking workforce with the fact that we live in a more and more affluent society, with greater percentages of young people affording and seeking college degrees, and a looming issue is on the horizon for your industry. Where are you going to find the skilled masons and field labor force to complete the increasing number of opportunities coming your way due to the strong economy?

You've already seen some of the answer, and will see much more of it very soon. Mexican and Hispanic workers are suddenly everywhere. Drive out to affluent Hurstbourne Parkway here in Louisville and stop at McDonalds for a Big Mac, or Burger King for a Whopper, and it will be prepared and served by an Hispanic worker, I assure you. There are good, hard working Mexican roofers, framers, and masons all over town right now, and that number is only going to increase. Twenty-five years from now, the entire workforce population will be a majority minority. That means there will be greater numbers of minorities in the workplace than today's traditional white majority. Today, this minute, California's workforce population is already 49% minority. And don't think this is a trend only for California, Texas and New Mexico. It's a phenomenon happening all across the US, especially in the South. Again, these are facts, and I don't want anyone to misconstrue my message. Our shrinking workforce is a huge problem, and the availability of good ethnic workers is thankfully, a part of the potential solution, but probably only a small part.

Now I'll go out a little further on the limb and postulate a more radical solution. In 1970, we had 200,000 inmates in our prisons. Today, that number is 2,000,000, a ten-fold increase in just thirty years. And what's the age of that inmate population? You guessed it, they're right at the age you need for good, strong workers.

I had the honor of being the Kentuckiana Masonry Institute's guest at your national convention in Vegas this year, and the most enjoyable thing I experienced there was a half day training that consisted of actually laying block on a Habitat For Humanity House. Between the architects being trained and the masons trying to teach us pencil jockeys, there must have been sixty people swarming that job site. It was truly something I'd always wanted to try, and I now have even more respect for the wizardry you folks perform out there with those heavy, bulky concrete block and brick. I assure you, it was absolutely, positively a sheer coincidence that I scheduled a one-hour massage immediately following that day in the field. It had nothing to do with my shoulder being so sore I could barely throw the dice at the craps table. So, among the lessons I learned? This is definitely a young person's field. It is for persons of sound body, fit enough to do all of that heavy lifting while still maintaining a high degree of craftsmanship.

That brings me back to the prisoners. Where will they go for work when they are released? By far, the largest two categories of prisoners are drunk drivers and fathers skipping out on child support. One would hope that our criminal justice system could serve to rehabilitate these persons to become productive members of society. Why not engage them in your industry? Why not proactively seek them out? Why not inspire your industry associations to set up training programs in our nation's prisons in order to be the first to capture this waiting labor force? Is this far fetched? Probably. But I say it with all due respect to the parties concerned. We sorely need the labor force. It's partially available in our prisons. Where else will you find it? Immigrant workers will be part of the answer, there is no doubt. Perhaps reformed, dependable former prisoners will be another. There just might be a day when the workers on our job sites are called by "Mugsy", Vinnie the Barber, Razor, and Tiny, in addition to Pedro and Miquel. I personally think that would be a great day.

Because let's explore what happens if you can't find enough skilled labor pool. Supply and demand, right? Good news for the employees out there – higher wages. Bad news for the employers out there – higher wages! Bad news for the consumer – higher prices. Bad news for the masonry industry – more interest in exploring more cost effective alternatives to masonry. Because it's not just supply and demand, it's affordability. The less affordable masonry becomes, the more attractive other alternatives become.

I don't mean to paint a doomsday picture, because really what I'm seeing is quite the opposite. Fewer skilled workers in both the design and construction fields, combined with increasingly difficult marketplace demands for faster and faster turnaround, plus our extremely litigious society in which we operate will change the way in which we all deliver our product. By the year 2005, a mere five years from now, it is predicted that as much as 50% of all construction will be delivered by the Design-Build process. This will replace more and more of the traditional Design-Bid-Build process under which most of us operate. We will see an increased

number of Design-Build joint ventures between Designer and Builder, formed purely out of the necessity of getting the job done. I think we'll see architect and engineer firms merging with contractors into more nimble firms where design is happening at the same time as construction, in a more amiable, cooperative spirit, borne out of the realization that we can never draw enough details to totally protect against litigation, and that we can never build fast enough if we are to expect the designer to work everything out on paper before it goes to bid. For the same reasons, and I know a lot of people are skeptical about this one, I think you may see some return to the old days of General Contractors actually having skilled trades people on staff, instead of merely playing the brokerage role that's now so common. You'll see more coming together of service and product.

The modernist movement in architecture that started back in the twenties was based on a philosophical and esoteric belief in the machine and the sought-after benefits it offered mankind. For the first time, buildings were stripped of ornamentation and presented sort of bare bones, due to a belief that fine, handmade craftsmanship would be less and less affordable. The primary costs of construction were shifting from materials to labor, and it was believed, rightly so, that this trend would only continue. These modernists of the twenties were thought to be ahead of their time, but we may not have realized how truly far ahead they were.

My prediction is that as the shrinking labor pool drives up the price of everything hand made and field crafted, we will see a resurgence in building systems and components that are light weight and large, requiring fewer and fewer expensive man hours for installation. Panelized and component construction will become more and more commonplace. Does that describe masonry? No, but I think you might see a resurgence in masonry panel construction as well.

I am bleeding into the second theme of my presentation, and that is technology and its future impact on design and construction. In Washington D.C. in February, 1999, I had the great honor of meeting Frank O. Gehry, one of the world's most renowned architects and that night, being honored with the American Institute of Architects Gold Medal. The Gold Medal is akin to winning a Pulitzer, or Nobel Prize, and Gehry joined Frank Lloyd Wright, I.M. Pei, and many other distinguished recipients before him. You may or may not know Gehry's work, but he was the designer of the new Guggenheim museum in Bilbaou, Spain that looks like a giant aluminum can that has been squished in several different directions. It consists of many complex and varied geometrical folded sheets of metal, and is quite striking. But his work is so pioneering that conventional means of drawing, and building it simply do not suffice. They can't get it done. So, out of necessity, his office turned to the automotive software industry to help design their many projects of complex folded plate geometries, and is currently a world leader in developing new software technologies as well. I mention this because he is not alone, he is just at the top. ARCHITECTURAL RECORD, our profession's most influential magazine, recently commissioned a half dozen famed architects to design certain "Buildings For the New Millennium", and without exception, they were all of similar vein. Pick up any leading architectural trade magazine, and you'll see the same thing on its pages. Across the country, the computer is beginning to be such an integrated design tool that buildings can not be designed without it. And I am not talking about CADD drafting here. I'm talking about designing shapes and spaces that can only be understood

three dimensionally by the computer. Granted, this is not on the every day run of the mill project, but it's out there none the less, and not that far out there. The computer is helping us design and implement more and more complex designs, on more and more routine projects, and I am simply asking the question of how this more free wheeling, free form architecture that is being generated will impact your industry. The most successful of you will be the ones who provide the answers.

Go back to my earlier comments about the modernists of the 1920's and their worship of the machine. Could you substitute the word "computer" for "machine"? It's the same principle, that technological advances will drive our design and construction methodologies. It's just that we used to think of "machines" as something mechanical, with lots of moving parts. Now, our modern day machines are simply called by a different name, computers.

Please understand, I love masonry, and I'll take a good ol' brick and stone masterpiece any day, and I firmly believe the market will never go completely away from masonry. It will never disappear because it's what the public likes, and generally speaking, we try and get what we like. But still, technology in both design and construction will play an increasing role, and we all need to be examining where it will take us. Combined with the growing shortage of available workforce, I believe these are two of the major trends before us that must be dealt with, not only if we are to thrive, but simply in order to survive. I can not encourage you enough to look closely at your own companies and be thinking about creative recruitment of craftsmen, and the cultural shifts that will probably need to occur to get and keep them. And then to follow that by continually exploring more cost effective, less labor intensive construction techniques that capitalize on the latest in technology.

It is dangerous to try and predict the future, I know that, in spite of what I've been saying. When it comes to predicting the future, I tend to be a skeptic. From Edsels to a product called Hop 'n Gator, which was a lemon'lime flavored beer, the landscape of the twentieth century is littered with bad guesses. Little more than 20 years ago, Ken Olsen, the founder of Digital Equipment Corporation, said, and this is a direct quote, "There is no reason anyone would want a computer in their home."

So, be careful of false prophets, especially when they paint rosy scenarios. We've already seen in just the last few months what Alan Greenspan and company have done in cooling down the economy, yet I personally believe more in the demographic predictors I talked of earlier. Still, you don't have to be a fortune teller to know that sooner or later profits will fall, investment will taper off, credit will contract, and the longest business expansion in U.S. history will start to cool down.

We can't say for certain what the Federal Reserve will do next, but there are larger forces at work that will play out over time with enormous impact on our nation's economy and how we do our work. Some trends to look for:

- Population shifts I discussed earlier, the aging of the boomers and a shrinking workforce.
- A third of all population growth will come from immigration, much of it concentrated in so-called "gateway" communities such as LA, New York, San Francisco, Miami, Chicago, and other urban areas.
- The average family or homeowner will be single or couples without children, or singles with children. The days of Ward and June and Wally and the Beaver are being replaced by Will and Grace, Seinfeld, Kramer, Elaine, and George.
- Migration to the sunbelt will continue.

Notice, I have not said anything about the growing inventory of aging buildings, the communications revolution, or the global economy. I've deliberately avoided going into these because the impact becomes even more speculative. For instance, it's clear that the technologies supporting the communications revolution are still in the early stage of development. The next chapter of that revolution is perhaps being written right now by some fifteen year old computer nerd in a garage three blocks from here. By contrast, the trajectory of the Baby Boom is clear for anyone who wants to bother looking at it and figuring out how it's going to affect everything from product design to tax collection.

So what do we discover when we do look at the trends? Clearly, the movement of the Baby Boom generation into middle age favors some types of construction activity over others. Here's an overview.

Households in their 40's and 50's form the core of both the trade-up market for home building and the remodeling market for existing residences. They are also the group most likely to own second home or time-share condominiums.

Another consequence of the aging Baby Boom will be the continued migration from the Frost to the Sunbelt. These regions are again likely to capture more than 80 percent of the population growth over the next 15 years. While the total US population is projected to increase almost 1 percent a year between now and 2010, population in the West will be increasing at almost twice that pace. This obviously includes the numbers gained through immigration from Mexico as well as Central and South America.

As the demographic characteristics of the population change, so, too, will the mix of construction activity. Institutional buildings, for example, primarily serve the youngest and oldest age groups. With the younger population shrinking and the Baby Boomers not scheduled to achieve the status of senior citizens until 2010, the institutional share of nonresidential construction is expected to decline slightly over the next 15 years. But after that, get set for a dramatic change.

By contrast, commercial buildings primarily support the population in the middle of the age spectrum. Since this is the age group that will see profound growth in the coming years, commercial construction markets will thrive between now and 2010.

That's the big picture. Here are some of the specifics, beginning first with the outlook for the residential market.

Steady growth in the US population, combined with a decline in the average size of households, means that the total number of households will rise in the years ahead. Much of this growth will be among households in their 40's and 50's, who traditionally buy bigger, more expensive homes. Households in younger age groups, however, will shrink in number, undermining support for the rental and first-time homebuyer markets.

The changing size and composition of households of course influence the types of homes that will be required in the next ten years. Smaller households looking to buy new homes are likely to seek smaller houses on relatively small lots, requiring little maintenance. This suggests a renewal of interest in condominiums and planned developments. At the same time, many of tomorrow's small households will also be in their peak earning years. Regardless of household size, higher-income households tend to buy larger homes with more amenities. On balance, then, the long-term rise in the cost of new homes built is likely to continue over the next ten years.

The same households that constitute the prime trade-up group – upper-income households in their mid-30's through mid-50's – also make up the prime remodeling group. Households in this age group spend significantly more than others on remodeling projects, with most expenditures aimed at improving rather than merely maintaining their homes. Drive through America's older inner suburbs and you can see with your own eyes just how pervasive this phenomenon is. It's what keeps the cash registers of Home Depot humming.

Let's turn next to Institutional Construction. After shrinking steadily for much of the 1980's, in part because Boomers deferred having children, the school-age population has expanded by about 2.2 million kids since 1989 and should continue to grow for the next 15 years.

Rising school enrollments translate directly into an increasing need for educational facilities. A large share of total education spending, however, will go toward school upgrades or additions rather than new construction. There is every reason to believe that this trend will grow. In the slower growth areas of the Northeast and Midwest, improvements and additions will likely account for a much larger portion of total construction dollars than elsewhere in the country.

Let's take a look to where we Boomers are headed after we complete our second, or, in some cases, third career. That means health care facilities. With the aging of the population and changes in medical needs,

new health care construction projects initiated over the next 15 years will be primarily clinics, chronic care services, and integrated residential facilities. Right now, the cost-containment strategies of health care in this country have tended to limit the use of medical facilities. This has had the effect of holding down spending on new facilities. But when it comes time to serve the needs of the Baby Boomers – first their parents, and ultimately themselves – expect that segment of the construction industry to take off.

A key and growing segment of the institutional construction market is public buildings. Spending on public construction projects – which includes detention facilities, police and fire stations, post offices, and related government facilities – has accounted for about 12 percent of the overall institutional market. Over the past 15 years, public projects have become the fastest growing institutional construction category. Unfortunately, justice facilities (jails, prisons, court houses, police stations) are fueling the bulk of the growth. Over the next 15 years, justice construction activity – which is the sanitized way of saying prisons and jails – will remain strong.

The third and last of the three futures we are looking at is commercial and industrial construction. The aging population will tend to dampen the need for new retail projects, given that older households, spend a smaller share of their incomes on store products. As the Baby Boom generation moves into its late 50's and 60's, their spending patterns will shift from goods to services. Moreover, consumer surveys suggest that persons aged 60 and over are the least likely age group to visit malls regularly. Given these behavioral trends plus the rise of e-commerce, tomorrow's older households are likely to handle more of their goods purchases from the comfort of their homes.

The need for added retail facilities should, therefore, be modest over the next decade. Nevertheless, the relationship between space needs and retail construction activity is imperfect. As retailers attempt to come up with a better mousetrap to generate more sales, today's retail formats may well become obsolete. Consider, for instance, the remarkable transformation of Banana Republic from its safari roots to today's slick retail spaces that serve the image needs of the androgynous Generation X-ers. In short, marketing strategies will dictate construction activity in your local malls totally out of proportion to the amount of new space needed. As for office buildings, as companies pursue new ways to manage their space needs, they will be looking to consolidate their locations and to increase the flexibility of the space they do keep. The latter fact plays right into the following prediction: Within the next decade, more than half of all construction dollars will go for additions and alternations rather than new structures. Increasingly, the familiar picture of pedestrians peering through the plywood surrounding new construction sites is being replaced by dumpsters filled with construction debris along the perimeter of existing buildings.

Okay, I've pontificated and predicted enough. I'll head into the home stretch now so you folks can head out to the home stretch, and all of your other activities. If I could offer an overall assessment of our future, it would be this: The 21st century will put a high premium on the very skills that define our work. Our ability to perform in teams, our creativity, the skill we have to think in all three dimensions, and our ability not so much to solve problems, but rather to discover opportunities will be enormous advantages.

To live only in the present and simply react to the next wave is surely folly. The strategies you develop for coping with the future may turn out hopelessly compromised by wrong, incomplete, or misinterpreted data. But as the futurist Alvin Toffler has pointed out, "If you don't have a strategy, you will be permanently reactive and part of somebody else's strategy." Let me repeat that. "If you don't have a strategy, you will be permanently reactive and part of somebody else's strategy." Put another way, Lead, Follow, or Get Out of the Way. With expanding globalization and increased interconnectivity in the world, all of us have to expand our horizons continuously and constantly look ahead. That means having the ability to cut through the static of the present to look to where our world is trending five, ten, and even more years from now.

Yet another great philosopher, indeed "The Great One", Wayne Gretsky, the famed hockey player, had it right when he explained his own reason for being so great. He always said "It's not good enough for us to know where the puck is now; we need to be able to anticipate where it will be."

I hope I've possibly helped you see where that puck might be in the future, or at least gotten you wondering about it so you can draw your own conclusions. I have truly enjoyed talking to you this morning. I have a tremendous respect for the complex and important work you do, and wish you the very best in your endeavors. Enjoy your stay in Louisville.

Thank you.