

The New Renaissance Address Delivered to the University of Texas Health Science Center at Houston, March 7, 2002

Back in 1995, when I was visiting a school in Albuquerque that had used *Ishmael* as the year's focus book, I was asked to meet with a very high-level group of health care professionals--the assembled department heads of Presbyterian Health Care Services, which functions as a regional hospital system. I accepted the invitation but wondered what I might have to say that was relevant to their professional concerns. I know nothing about hospitals or health care or the medical profession. I don't even watch ER.

It was clear when I sat down with them--perhaps twenty men and women--that they'd all been deeply moved by my book. But none of them could quite explain why it was relevant to them in their profession. I think what it really came down to was that, as a result of reading *Ishmael*, they themselves had changed, simply as human beings, and they were trying to figure out how this change would or could or should change them as health-care professionals.

I'm afraid I wasn't much help, but I don't think I need to apologize for this. I had no way of knowing how their professional lives needed to change; only they could know that.

I had a similar experience a year later when I was asked to address an annual conference of high-level executives involved in the design and manufacture of commercial floor-covering systems. Don't laugh. This is a multi-billion dollar global industry--and an industry that at that time was highly pollutive, a huge contributor to landfills, and totally dependent on and extremely wasteful of nonrenewable resources (petroleum, mainly).

They too had been profoundly changed by my work, but thereafter the similarity between the two groups ended. These people weren't in any doubt about how to translate this change into a change in their professional lives. Which is a good thing, because of course I wouldn't have had a clue. They knew what they had to change, and they'd already put into place a set of long-range goals that not only transformed their industry but compelled associated industries to change as well. In order to retain their position in this industry, giants like DuPont were literally forced to start thinking a different way themselves.

If I were asked to address a group of investment counselors or chemical engineers or airline executives--and none of these are out of the question--it'd be the same. My task would not be to tell them what changes to make in their professional lives, because I know nothing about investments or chemical engineering or airline management.

With every group, no matter what principle or profession draws it together, my task is the same: to send people home with a new and deeper insight into the central problem that draws us ALL together as humans, regardless of our occupations--and that problem is nothing less than the survival of our species.

People often ask me if I have any hope for our survival. What they really want to know, of course, is whether I can provide them with some grounds for hope. Comment from Daniel Quinn (7 March 02): Invitations to speak to gatherings like this one are for me invitations to look again and to think again--to see if I can find some way to illuminate our situation that I've missed in the past, and it always makes the event more valuable to me personally if I succeed in this. One of the perennial difficulties people have with my ideas can be phrased this way, "Yes, Mr. Quinn, I understand what you're saying, but what are we supposed to DO about it?" What this question betrays is in fact that this person does NOT understand what I'm saying. This was at the front of my mind as I began preparing for this event a month ago--looking again and thinking again--something new did sneak up on me.

I am hopeful, because I feel sure that something extraordinary is going to happen in your lifetime--in the lifetime of those of you who are three or four decades younger than I am. I'm talking about something much more extraordinary than has happened in MY lifetime, which has included the birth of television, the splitting of the atom, space travel, and instant, global communication via the Internet. I mean something REALLY extraordinary.

During your lifetime, the people of our culture are going to figure out how to live sustainably on this planet--or they're not. Either way, it's certainly going to be extraordinary. If they figure out how to live sustainably here, then humanity will be able to see something it can't see right now: a future that extends into the indefinite future. If they don't figure this out, then I'm afraid the human race is going to take its place among the species that we're driving into extinction here every day--as many as 200--every day. As people like to say nowadays, you don't have to be a rocket scientist to figure this out. The people who keep track of these things and make it their business to predict such things agree that the human population is going to increase to ten billion by the end of the century. It isn't just the doom-sayers who say this. This is a very conservative estimate, recently endorsed by the UN. Unfortunately, most of the people who make this estimate seem to have the idea that this is workable and okay.

Here's why it isn't.

It's obvious that it costs a lot of money and energy to produce all the food we need to maintain our population at six billion. But there is an additional, hidden cost that has to be counted in life forms. Put plainly, in order to maintain the biomass that is tied up in the six billion of us, we have to gobble up 200 species a day--in addition to all the food we produce in the ordinary way. We need the biomass of those 200 species to maintain this biomass, the biomass that is in us. And when we've gobbled up those species, they're gone. Extinct. Vanished forever.

In other words, maintaining a population of six billion humans costs the world 200 species a day. If this were something that was going to stop next week or next month, that would be okay. But the unfortunate fact is that it's not. It's something that's going to go on

happening every day, day after day after day--and that's what makes it unsustainable, by definition. That kind of cataclysmic destruction cannot be sustained.

The extraordinary thing that is going to happen in the next two or three decades is not that the human race is going to become extinct. The extraordinary thing that's going to happen in the next two or three decades is that a great second renaissance is going to occur. A great and astounding renaissance.

Nothing less than that is going to save us.

The first Renaissance, the one you met in your history textbooks, was understood to be a rebirth of classical awareness and sensibility. It could hardly have been understood to be what it actually was, which was the necessary preface to an entirely new historical era.

A few key medieval ideas were jettisoned during the Renaissance, but they weren't replaced by ideas that would have made sense to classical thinkers. Rather, they were replaced by ideas that were entirely new--ideas that would NOT have made sense to classical thinkers. These were ideas that make would sense to us. In fact, these ideas still make sense to us.

The Renaissance (and indeed the modern world) came into being because during the 14th, 15th, and 16th centuries an interrelated complex of medieval ideas came under challenge. The centerpiece of the complex related to the means of gaining certain knowledge. During the Middle Ages, it was understood that reason and authority were the chief means of gaining certain knowledge. For example, it seemed perfectly reasonable to suppose that the earth was a stationary object around which the rest of the universe revolved.

It was reasonable--and it was affirmed by a towering authority, the great 2nd century astronomer Claudius Ptolemaeus, Ptolemy. Similarly, it seemed perfectly reasonable to suppose that heavy objects fall to earth faster than light objects--and this was affirmed by another towering authority, the polymath genius Aristotle.

But during the Renaissance, reason and authority were toppled as reliable guides to knowledge and replaced by . . . observation and experimentation. Without this change, science as we know it would not have come into being and the industrial revolution would not have occurred.

During the Middle Ages, it was taken for granted that our relationship with God was a collective thing that only the Roman Catholic Church was empowered to negotiate. During the Renaissance, this dispensation was challenged by a completely new one, in which our relationship with God was seen as an individual thing that each of us could negotiate independently with God. In this new dispensation was born the magnification and sanctification of the individual that we take for granted in modern times. We all see ourselves as individually valuable and quite fantastically empowered--literally bristling with rights--in a way that would have been astonishing to the people of the Middle Ages.

In the Middle Ages, the universe was perceived as a thing that had come into being as a finished object just a few thousand years ago. It was fixed, finite, and as much known as it needed to be. In the Renaissance, however, the universe began to be perceived in a much different way: as dynamic, infinite, and largely unknown. It was this change in thinking that led not only to the great age of exploration but to the great age of scientific investigation that followed and that continues today.

All this seems very obvious to us today. The Middle Ages obviously couldn't last forever. Things obviously had to change. But this was not at all obvious to the people of the Middle Ages. As far as they were concerned, people would go on thinking and living the medieval way forever.

We think the very same thing.

Just like the people of the Middle Ages, we're absolutely sure that people will go on thinking the way we think forever, and people will go on living the way we live forever.

The people of the Middle Ages thought this way because it seemed impossible to them that people could think a different way. How else could people think except the way they thought? As far as they were concerned, the history of thought had come to an end with them. Of course, we smile at that--but in fact we believe exactly the same thing. We too believe that the history of thought has come to an end with us.

Well, we'd better hope we're wrong about that, because if the history of thought has come to an end with us, then we're doomed.

If there are still people here in 200 years, they won't be living the way we do. I can make that prediction with confidence, because if people go on living the way we do, there won't be any people here in 200 years.

I can make another prediction with confidence. If there are still people here in 200 years, they won't be thinking the way we do. I can make that prediction with equal confidence, because if people go on thinking the way we do, then they'll go on living the way we do--and there won't be any people here in 200 years.

But what can we possibly change about the way we think? It seems so obvious that everything we think is just the way it must be thought.

It seemed exactly the same to the people of the Middle Ages.

Although several key ideas of the Middle Ages disappeared during the Renaissance, not every key idea of the Middle Ages disappeared. One of the key ideas that remained in place--and that remains in place today--is the idea that humans are fundamentally and irrevocably flawed. We look at the world around us and find that turtles are not flawed, crows are not flawed, daffodils are not flawed, mosquitoes are not flawed, salmon are not

flawed--in fact, not a single species in the world is flawed--except us. It makes no sense, but it does pass the medieval tests for knowledge. It's reasonable--and it's certainly supported by authority. It's reasonable because it provides us with an excuse we badly need. We're destroying the world--eating it alive--but it's not our fault. It's the fault of human nature. We're just badly made, so what can you expect?

Another key idea that survived the Middle Ages is the idea that the way we live is the way humans are meant to live. Well, goodness, that's so obvious it hardly needs saying. We're living the way humans were meant to live from the beginning of time. The fact that we only began living this way very recently has nothing to do with it. So it took us three million years to find it. That doesn't change the fact that it's the way we were meant to live from the beginning of time. And the fact that the way we live is making the world uninhabitable to our own species also has nothing to do with it. Even if we destroy the world and ourselves with it, the way we live is still the way we were meant to live from the beginning of time.

But these two medieval survivors are relatively benign. Stupid but harmless. One other key idea survived, however, that is definitely neither benign nor harmless. Far from being benign or harmless, it's the most dangerous idea in existence. And even more than being the most dangerous idea in existence, it's the most dangerous thing in existence--more dangerous than all our nuclear armaments, more dangerous than biological warfare, more dangerous than all the pollutants we pump into the air, the water, and the land.

All the same, it sounds pretty harmless. You can hear it and say, "Uh huh, yeah, so?" It's pretty simple too. Here it is: Humans belong to an order of being that is separate from the rest of the living community. There's us and then there's nature. There's humans and then there's the human environment.

I'm sure it's hard to believe that something as innocent-sounding as this could be even a little bit dangerous, much less as dangerous as I've claimed.

As I've said, it's conservatively estimated that as many as 200 species are becoming extinct every day as a result of our impact on the world. People take in this piece of horrendous information very calmly. They don't scream. They don't faint. They don't see any reason to get excited about it because they firmly believe that humans belong to an order of being that is separate from the rest of the living community. They believe it as firmly in the 21st century as they did in the 10th century.

So, as many as 200 species are becoming extinct every day. That's no problem, because those species are out there somewhere. Those 200 species aren't in here. They aren't us. They don't have anything to do with us, because humans belong to an order of being that is separate from the rest of the living community. Those 200 species are out there in the environment. Of course it's bad for the environment if they become extinct, but it has nothing to do with us. The environment is out there, suffering, while we're in here, safe and sound. Of course, we should try to take care of the environment, and it's a shame about those 200 extinctions--but it has nothing to do with us. Ladies and gentlemen, if

people go on thinking this way, humanity is going to become extinct. That's how dangerous this idea is. Here's why.

Those 200 species . . . why exactly are they becoming extinct? Are they just running out of air or water or space or what? No, those 200 species are becoming extinct because they have something we need. We need their biomass. We need the living stuff they're made of. We need their biomass in order to maintain our biomass. Here's how it works. Go down to Brazil, find yourself a hunk of rain forest, and cut it down or burn it down. Now bring in a herd of cows to pasture there. Or plant potatoes or pineapples or lima beans. All the biomass that was formerly tied up in the birds, insects, and mammals living in that hunk of rain forest is now going into cows, potatoes, pineapples, or lima beans--which is to say into food for us.

We need to make 200 species extinct every day in order to maintain the biomass of six billion people. It's not an accident. It's not an oversight. It's not a bit of carelessness on our part. In order to maintain our population of six billion, we need the biomass of 200 species a day. We are literally turning 200 species a day into human tissue.

But all too many people--most people, I'm afraid--tend to think, "Well, so what? Humans belong to an order of being that is separate from the rest of the living community. Since we're separate, it doesn't matter how many species we destroy--and since we're superior to them anyway, we're actually improving the world by eliminating them!"

We're like people living in the penthouse of a tall brick building. Every day we need 200 bricks to maintain our walls, so we go downstairs, knock 200 bricks out of the walls below and bring them back upstairs for our own use. Every day. . . . Every day we go downstairs and knock 200 bricks out of the walls that are holding up the building we live in. Seventy thousand bricks a year, year after year after year.

I hope it's evident that this is not a sustainable way to maintain a brick building. One day, sooner or later, it's going to collapse, and the penthouse is going to come down along with all the rest.

Making 200 species extinct every day is similarly not a sustainable way to maintain a living community. Even if we're in some sense at the top of that community, one day, sooner or later, it's going to collapse, and when it does, our being at the top won't help us. We'll come down along with all the rest.

It would be different of course, if 200 extinctions a day were just a temporary thing. It's not. And the reason it's not is that, clever as we are, we can't increase the amount of biomass that exists on this planet. We can't increase the amount of land and water that supports life, and we can't increase the amount of sunlight that falls on that land and water. We can decrease the amount of biomass that exists on this planet (for example by making the land sterile or by poisoning the water), but we can't increase it.

All we can do is shift that biomass from one bunch of species to another bunch--and that's what we're doing. We're systematically shifting the biomass of species we don't care about into the biomass of species we do care about: into cows, chickens, corn, beans, tomatoes, and so on. We're systematically destroying the biodiversity of the living community to support ourselves, which is to say that we're systematically destroying the infrastructure that is keeping us alive.

It's conservatively estimated that our population will increase to ten billion by the end of the century--and people take in this hair-raising piece of information very calmly. No one screams. No one faints. People are as untroubled about our mushrooming population as they are about those 200 daily extinctions. They see no reason to get excited, because they firmly believe that humans belong to an order of being that is separate from the rest of the living community. They don't see that the extinction rate is going to increase as our population increases--and probably exponentially. This is because when we make species extinct, we don't gain 100% of their biomass. A great deal of it is simply lost, contributing to the desertification of the planet. By the middle of the century, if our population has indeed increased to ten billion, then the number of extinctions will be a thousand a day or ten thousand a day (the number is incalculable at this point).

If there are still people living here in 200 years, they'll know that humanity doesn't belong to an order of being that is separate from the rest of the living community. They'll know this as surely as we know that the earth revolves around the sun. I can make this prediction with confidence, because if people go on thinking we belong to a separate order of being, then there will be no people living here in 200 years.

What everyone wishes I could do (and what I myself wish I could do) is describe how people will be living here in 200 years--if there still are people living here. All I can tell you is how they won't be living: they won't be living the way we do. But why is that? Why can't I tell you how they will be living? The answer is: because no one can tell you that.

You can see why this is so if you put the question back into the Middle Ages. You might very well have been able to convince Roger Bacon that people would be living differently in 300 years, but how in the world could he have predicted the Age of Discovery, the rebellion against feudal oppression, the Industrial Revolution, the emergence to power of a capitalist bourgeoisie, and so on? To expect such a thing would be absurd.

You could say that if the Middle Ages had been able to predict the Renaissance, then it would have been the Renaissance.

Social evolution is inherently chaotic--which is another way of saying inherently unpredictable. This is true even in relatively stable times. Consider the fact that every intelligence agency in the world was taken by surprise by the collapse of the Soviet Union, which days before had looked as stable as Great Britain or the United States.

And if social evolution is chaotic in even stable times, then it's going to be even more chaotic in the times ahead, when people are either going to start thinking a new way or become extinct.

Of course I understand why people want to have a description of the sustainable life of the future. They think this would enable them to adopt that sustainable life now, today. But social change doesn't come about that way, any more than technological change does. It would have been useless to show Charles Babbage a printed circuit or to show Thomas Edison a transistor. They could have done nothing with those things in their day--and we could do nothing today with a picture of life a hundred years from now. The future is not something that can be planned hundreds of years in advance--or even ten years in advance. Adolf Hitler's Thousand Year Reich didn't even last a thousand weeks. There has never been a plan for the future--and there never will be.

Nevertheless, I can tell you with complete confidence that something extraordinary is going to happen in the next two or three decades. The people of our culture are going to figure out how to live sustainably--or they're not. And either way, it's certainly going to be extraordinary.

The fact that I'm unable to give you a prescription for the future doesn't mean you're just helpless bits of cork bobbing in the tide of history. Each of you is about where Galileo was when he was told in no uncertain terms to shut up about the earth moving around the sun. As far as the gentlemen of the Roman Inquisition were concerned, the earth's movement around the sun was a wicked lie they had to suppress--and could suppress. But as he left his trial, Galileo was heard to mutter, "All the same, it moves!"

Surprisingly little hung on the matter. The future of humanity didn't depend on destroying the medieval picture of the solar system. But the future of humanity does depend on our destroying the medieval picture of humanity's relationship to the living community of this planet.

Galileo didn't know that people would someday take space travel for granted, but he did know that they would someday recognize that the earth revolves around the sun. We don't know how people will live here in 200 years, but we do know that if people still are living here in 200 years, they will recognize that we are as much a part of the living community--and as thoroughly dependent on it--as lizards or butterflies or sharks or earthworms or badgers or banana trees.

People don't want more of the same. Yet, oddly enough, when they ask me what will save the world, they want to hear more of the same--something familiar, something recognizable. They want to hear about uprisings or anarchy or tougher laws. But none of those things is going to save us--I wish they could. What we must have (and nothing less) is a whole world full of people with changed minds. Scientists with changed minds, industrialists with changed minds, school teachers with changed minds, politicians with changed minds--though they'll be the last of course. Which is why we can't wait for them or expect them to lead us into a new era. Their minds won't change until the minds of

their constituents change. Gorbachev didn't create changed minds; changed minds created Gorbachev.

Changing people's minds is something each one of us can do, wherever we are, whoever we are, whatever kind of work we're doing. Changing minds may not seem like a very dramatic or exciting challenge, but it's the challenge that the human future depends on.

It's the challenge your future depends on.