up a little bit in terms of return, because there is always a trade-off in investing. If you are going to get a tax advantage, you are going to get a little bit less return, but it is still a solid return compared with what you might get in a savings account in a bank or even these days in a money market fund.

The time for socially responsible investing is now; it's good for the investor, and it's good for the community. To put the concept as succinctly as possible, I would say that to create a better world, invest in it.

EPILOGUE

When we have financial resources and money, Reder tells us that it is important where we put our money. Dominguez and Robin suggested U.S. Treasury Bonds. Reder talks about socially responsible investments in companies and/or funds that are working actively to be responsible corporate citizens. If we want to create a better world, we must direct our money toward companies and institutions whose actions we support. Incorporating our ethics and moral values into any decisions about where to invest our money is crucial to the future of our society and the planet, according to Reder. He points out that the performance of socially responsible investments is equal to or better than other types of investments and can serve whatever goal we may have for allocating our money.

CHAPTER NINE

The Future of Money

Bernard Lietaer and Michael Toms

PROLOGUE

Once in a century or two, something occurs to dramatically change the current of the cultural river. Everything shifts. Our worldview is radically altered. Our basic values, social standards, politics, and institutions are transformed beyond recognition. This is such a time. Call it the new Renaissance, the green revolution, the emerging culture—whatever its name, there is no doubt that it will change the way the world works. Not the least of this radical shift will involve the economic system and how we relate to money. In this dialogue, Bernard Lietaer will help us explore these monetary mysteries, and perhaps help us catch a glimpse of the birth of a new money standard far beyond anything we might have previously imagined.

Bernard Lietaer has been an engineer, a university professor, a currency trader, and a fund manager. He has also served as head of the Organization and Electronic Data Processing Department at the National Bank of Belgium, known as the Central Bank, *roughly equivalent to our Federal Reserve System. Currently, he is a research fellow at the Center for Sustainable Resources at the University of California-Berkeley, and a visiting professor in the psychology department at Sonoma State University.*

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MICHAEL TOMS: *I think a good place to begin would be with an overview of the history of money. When did the use of money really begin?*

BERNARD LIETAER: No one really knows when the use of money began. It is lost in the mists of time. One of the most intriguing statements on that topic was by John Maynard Keyes, one of the best-known economists of our century. He said that money went back much farther than we've been led to believe by historians. He believes it went back to between the ice ages. He talks about the Hesperides and Atlantis—the mythical past.

From a historical viewpoint, however, we know that money systems were already developed in the Sumerian culture around 3,200 B.C., and quite sophisticated banks had developed as well. In fact, people learned to write not for the purpose of writing love letters, but to do accounting. The oldest texts we have are bank accounts, and they date back to 3,100 B.C. It's very interesting that several cultures around the world actually began using money before beginning to write—and actually began writing because of the money, not the reverse.

Money has been around a long time. We might think that banking started with the Rothschilds, but banks actually predated medieval Europe.

The oldest bank that we know of was Babylonian and was incorporated in 700 B.C. The scholar who worked on that particular decoding concluded that we haven't done anything in 19th or 20th century banking that they weren't already doing. So banking is a very, very old concept. We lost a good deal of it, by the way. It had no continuity between Babylonia and today. With the collapse of Rome, around the 5th century A.D., the currency system fell apart, and by approximately the 7th or 8th century, there was no system left. Everybody had his own way of doing things, which had nothing to do with banking. There were many little fiefdoms, and each lord had his own currency.

Is it true that the dark ages were partially caused because there was no money?

That's not actually correct. Interestingly, the money system that was used during the Middle Ages had something in common with the Egyptian system, and that is, there were actually negative interest rates on the currency. Normally, when you have a bank account, you receive payment for keeping your money in that bank. It's called interest. Now, imagine a system in which you are penalized for keeping your values in money. This isn't inflation or depreciation of the currency. It's a system where you are charged something every month for keeping your money in a particular bank. By doing that, you reverse the entire attitude toward money. Money becomes a pure medium of exchange, as opposed to a store of value. That has very positive implications, by the way, and could give us solutions to some of the problems we are facing today.

The lords that issued the currency had a system. In Latin they call it *Renovatio Monetae,* the renewal of the currency. Periodically, they would withdraw the money and issue new money, and there would be a tax in between. So you had people trading in currency, but you didn't have people storing value in currencies. If you were given $1,000, the first thing you would say is, "All right, what can I invest it in that's real and grows?" And you might decide to irrigate part of your land or plant trees somewhere. Currency was used only for trading. Today we do both things. We store value in currency, and we trade in currency. So there is an incentive today to accumulate wealth in the form of money.

There wasn't so much a flow of money as there was a flow of goods and barter. How did it work?

That's not entirely accurate. A barter system means living without money, making an exchange of goods for goods. What I'm referring to is people using money purely as a means of exchange. Money has different functions. One function, for example, would be storing value for your children's education. You create a trust account, and you accumulate money there. But in the money system I'm referring to, what you would do is plant a forest, because the money system at that time had a charge instead of positive interest.

So what we're dealing with is the nature of whether money is being accumulated or whether it is flowing.

If money is flowing, it's healthy money, a healthy system. The Chinese ideogram for money is a spring, the same as a water spring. Actually, currency comes from the word *current*, which is a flow. Money is, in that sense, a little like blood. If you have blood accumulating in one place, guess what? It's not a good sign. Something is going to go wrong. The blood should circulate, and money should circulate.

These days we do, in some sense, accumulate money. There are people who make money on money. There's this whole new field or profession of making money on money because we've become more of a global society where currencies are traded every day.

Currencies have always been traded. It's the scale that's new. The current volume of foreign exchange trading is about $2 trillion per day for a normal day. That's about 100 times bigger volume than all the stock markets being traded every day—a totally different scale. In the 1970s, trading currency might have been $10 to $20 billion on a normal day. We've gone up by a factor of 100 in less than two decades. So currency trading has become a major factor, and it has dwarfed the rest of the economy.

In some sense, money has become nonproductive.

Thomas Aquinas would agree. He didn't think money should have interest, because that's not productive. But I don't think productivity is really the issue here. The main function of money, in my opinion, is as a medium of exchange. Things go wrong when it stops being effective as a medium of exchange. That's when a money system breaks down. The difficulty is that when speculation gets beyond a certain level, which I think it has at this point, you don't have a measuring stick anymore. Everything becomes so volatile, so unpredictable, that you basically don't have a medium of exchange that you can rely on anymore. That's the real problem. I'm not saying that speculation is bad. I'm not making a moral judgment on speculative activity; some speculation is useful. Some speculation is necessary to have a fluid market, and it improves the depth of the market. But currently, the tail is wagging the dog.

In other words, only 2 percent of the $2 trillion of foreign exchange represents the trade of all the goods and services in the world. When an economy imports or exports cars from Japan or when a tourist takes a trip to Mexico, that actually involves dealing in foreign exchange. These are transactions that need to occur. This is what I call the real economy; real goods and real services are being exchanged. But only 2 percent of the total volume is now of that nature, while 98 percent is speculative. When the tail becomes 98 percent and the dog 2 percent, I think there's a problem. A tail is useful for a dog, but it shouldn't take that proportion. It is a question of scale.

When we talk about making money, most of us think of doing something to make money. But in fact, there's really a deeper mystery about how money gets created in this society, and it has to do with the Federal Reserve System, which seems to be made up of bankers who decide how much the money costs, how the money gets doled out, and how much is in circulation. To most of us, the Federal Reserve System is a mystery. What is the secret of modern money, and how does it come into being?

The current representative of the United States at the International Monetary Fund gave the following answer: "Money is magic. Central banks are magicians. Like magicians of old, they don't like to explain their secrets." So we are dealing with the mystery of magic, which has been part of the money system forever. These days, it is effectively hidden behind equations and arcane conversations that only initiates understand. The use of money involves trust, and trust is engendered by the use of symbols and reassurances. It's not entirely accidental that the money system is shrouded in mystery.

To help unravel the mystery, we need to understand that money is not a thing. It appears to be a thing. It has appeared for many,

many centuries to be a thing, but it's not a thing. Money lives in the same space as political parties, as marriages. It lives in the space of agreements. Money is an agreement within a community to use something (just about anything will do) as a medium of exchange. The key words are agreement, community, and medium of exchange. An agreement is a way by which, consciously or unconsciously, freely or coercively, we choose a particular symbol as a medium of exchange. Fundamentally, that's what money is—an agreement. When I give you a pen and you go off to a desert island, you still have a pen. It still functions as a pen. A cup of water is still a cup of water. But when I give you money and you arrive on a desert island, it stops being money. It becomes a piece of paper or a piece of metal or a piece of bronze or a piece of gold. But it's not money, because on a desert island, the agreement becomes meaningless. That's the first secret to unraveling the mystery.

Money implies relationships, not just a one-to-one relationship, but a community relationship in which the medium of exchange is acceptable to all. The community could be a group of friends who meet to play cards and use tokens as money. The community could be a temporary one, such as soldiers on the war front. They might use cigarettes as a medium of exchange. Or it could be the world community in which an exchange agreement is reached by treaty. The Bretton Woods agreement in 1945 made the dollar acceptable reserve currency worldwide.

Another aspect of money that we need to understand is the concept of ownership. You cannot talk about money as being *your* money. That's a little like talking about your marriage as being *your* marriage. Guess what? Your spouse is involved. You can't really talk about it without having the two parties involved. The same thing is true with money. Money is an asset to you as a medium of exchange only because it's a liability to the banking system. In other words, the secret is having a bank IOU that's acceptable as a medium of exchange to others. Money, then, is created from a two-party bipartisan agreement—mostly unconscious, by the way—between the banking system and you.

People usually believe that money is created when it rolls off the presses because that's what they see on TV programs—a machine printing all those dollar bills. You can have as many paper dollars as you want, as long as there is money in your bank account. You go to your bank branch and say, "Give me $100." The bank teller looks up your account (or the ATM looks up your account) and says, "Well, you have a balance that is higher than that. Here is the $100." You can do that as many times as you want, as long as there is "money in your account."

The day that there is no money in your account, you won't get the paper stuff. You can only get the paper as long as the computer says that you have enough in your account. But where does the money in your account come from? In most cases, you receive money from your employer. You provide a service, and you get paid for it. But where did your employer get the money?

The actual origin of money is in a loan. If you want a mortgage loan, you go to a bank. The banker might look at you and say, "Well, you want $100,000 dollars. You look like a serious, productive person. You look like you're going to be successful and therefore able to bring back the money when you need to. So we'll give you the loan." The value of the loan will be based to some extent on the building, but to a greater extent it will be based on you. In the case of corporations, it's not the buildings they are mortgaging. The building is not worth a lot. Microsoft, for example, is not mortgaging its buildings, and it has no problem raising billions of dollars in loans if it needs to.

The money that is created when you get a mortgage loan is actually created out of nothing at that point. The bank will credit your account for $100,000, but that money did not exist the minute

before you were credited. That is when the money is created. Every dollar that you've ever seen, whether it is physical bills or in a bank account, has its origin as a loan to someone through the banking system. That's the origin of money.

It's important to know where money comes from because it highlights the fact that the banking system is a necessary part of the agreement—just as your spouse is a relevant part of your marriage. National currencies are always expressed by banks, so without the banks, the marriage wouldn't be able to exist. This form of money would not exist.

So when we have a monetary crisis such as we had in Mexico in 1994–1995 and in Asia in 1997, it's because the banks are in trouble. If the banks are in trouble, the whole society faces a potential crash.

When people lose trust in their money, they lose trust in their own society. That's on a philosophical level. On a very pragmatic level, when banks get in trouble, the first thing they need to do is call back the loans, and that affects businesses. So it starts with a banking crisis, but it ends up spreading through every single business in the country. Suddenly, everybody has money pulled out from under them, and a whole chain of events occurs. Companies have to fire people, or they go bankrupt and jobs are lost. That's why banking is really a very different business from any other service business, because it affects everything else. It is the means by which the entire economic system operates. So it is critical.

In your research on money and the history of money, you've come up with your own approach as to how money has worked over the centuries. Can you describe it for us and tell us what it means to you?

The money system was initially a reflection of the Great Mother archetype. Money was invented based on that concept. The very first coins, for example, the Sumerian coins, were tokens, depicting a bushel of wheat on one side, and a figure of Ishtar, the Goddess of Life and Death, on the other. The tokens proved that you had paid your dues in wheat, and they gave you access to the sacred prostitutes in the temple, for the ritual of fertility at the festival. Prostitution had a different meaning then. At that time, it was intercourse with the Goddess herself, and that was nothing to be taken lightly. Fertility was a question of life or death.

The origins of money had to do with the feminine energy, but over the years, that aspect of it was repressed. We know that whenever a particular archetype is repressed, it will manifest in the form of shadows. For example, if you repress the higher self, the equivalent of the King or the Queen, depending on whether you are male or female, you will end up behaving as a tyrant or as a weakling. And the link between these two shadows is fear. The tyrant is fearful of being weak, and a weakling is fearful of being tyrannical; that's why they are in these two polarities.

The Great Mother archetype has been repressed for 5,000 years in Western societies—sometimes violently. When an archetype is suppressed that strongly for that long, we begin to consider behavior normal. We forget what the archetype looked like. We forget what a society looked like when a Great Mother archetype was active. So the question becomes: What are the shadows that result from such repression? If we examine our money system, it becomes apparent that greed and fear of scarcity are the shadows our repression has created. Our money system creates an incentive to be greedy and to accumulate through the interest system; and, of course, fear of scarcity is present, because in our society if you don't have money, you'll die.

It's my contention that greed and scarcity are not in nature—not even in human nature. They are built into the money system in

which we swim, and we've been swimming in it so long that these shadows have become almost completely transparent to us. We consider it normal and legitimate behavior. It is so legitimate and so normal that when Adam Smith (a Scottish schoolmaster in pre-Victorian times about 200 years ago) studied the system, he concluded that civilized societies are greedy and dealing with scarcity, and he developed a theory called *economics*, which is the allocation of scarce resources through the process of individual greed. The whole process of economics actually has its roots in the two shadows, and the implementation tool—the process by which this becomes real, not just a fictitious concept—is money.

Adam Smith softened the picture by talking about "individual self-satisfaction" rather than greed. Smith suggested that everyone does his own thing for his own selfish purposes, but this kind of behavior can have a positive effect on the whole. Adam Smith's first important book was not the well-known *Wealth of Nations*. It was really *A Treatise on Moral Sentiments* in which he explained in vast detail the different hierarchies of emotions that are legitimate and illegitimate. He didn't really like the concept of greed, but he thought that greed was an important component of any civilized society. You have to understand, of course, that Adam Smith's days were pre-Freud.

That's important to know, because his characterization of economic man is based on an emotionally simplified psychology. Smith posited that economic man was driven by only two emotions: He was desirous of accumulating infinite wealth, and he looked for maximum satisfaction, or utility. There were no motivations other than these two, and these two emotions were the ones that effectively drove the entire economic system.

That economic view is very much a product of our scientific materialism, and it is projected on our material world. It's interesting to note that the words *materialistic* and *matter* come from the

Latin word *mater* (mother)—the words *mother* and *matter* have the same origin. That takes on significance when we realize our belief in materialism is directly related to our repression of the Great Mother archetype. We create a world in which we suppress anything that is not compatible with that reality. We assume, for example, that our economic behavior is universal, but this is not valid, given that we do have booms and crashes. We had them in the 17th century in Holland with tulips, and we have them in real estate in Japan in the early 1990s or in the stock market today. Booms and crashes can't be explained with traditional economic theory.

We have been living in a patriarchal concept of reality for about 5,000 years. I call this the *yang* view of reality. The Chinese terms *yin* and *yang* are quite old, and they describe something very precise; we don't really have an equivalent of these terms in English or other European languages. Yang and yin are necessary complements to each other. They are not polarities. In our language, when I say, "hot," you hear "not cold." In our language, it's built in; we can't think otherwise. In the Chinese concept of yin and yang, however, yang is only yang because of its relationship with yin. Its relationship to yin actually creates it. So what the Chinese look at is the *relationship* between the two. We look at the *difference* between the two. To change our materialistic worldview, we need to look at relationships—the complementary nature of yin and yang.

Most of us probably see the banking system and the economic system as fairly well entrenched. They've been with us for so long. You have some very original views about this, however, based on long years of experience in working with money. How do you think this system is going to be transformed?

First of all, I think the money system is already changing. And the banking system has already changed. The banking system has

changed more in 20 years than in the last 300 to 400 years. The function of banks used to be taking deposits from individuals. They pooled the deposits and lent them to businesses. That is what they were doing until the 1970s. Well, because of the information revolution, suddenly everybody can have access to the information for financial market conditions, so corporations decided to borrow directly in the market without going to banks.

They did that by issuing bonds, or commercial paper. They cut the banks out completely. Now that was pretty dramatic. In fact, one-third of the banks in the United States have disappeared since 1980. The banks that did survive managed to do so by switching to credit cards. Credit cards are now the biggest single source of income for many of the largest banks. Credit cards have replaced the loans to businesses. What they used to do for businesses, they now do for individuals through the credit card system.

It's almost as if paper money were becoming an artifact. There's a big emphasis now on electronic banking, where you never see any paper money in the process. Your check goes into your account from your salary, and your bills are paid electronically. It's all automatic.

People talk a lot about electronic commerce. Well, electronic commerce is really just the rest of the economy catching up to where money has been for 30 or 40 years. Electronic reality, virtual space, is the space of money, and it has been that way for at least 20 to 30 years.

You probably have a few bills in your pocket, but that represents only a very small part of the money you have. The rest of the money is probably in a bank account or a brokerage account—which are electronic. That's where 95 percent of our money resides. All our money. Even individual money.

What's important and intriguing—and, depending on your viewpoint, sometimes scary—is that banks are becoming fundamentally communication companies. Conversely, companies that are in communications—telephone companies, computer companies, bill-paying services—are starting to get into banking. Brokers such as Merrill Lynch compete directly with banks. They have CMA accounts, which are basically cash-management accounts that are doing what banks used to do. The process of electronic banking has opened up a whole new reality. In fact, in 5,000 years of the documented history of money, there have been only two major revolutions, and one has happened in our lifetime. The first one was the invention of paper money, which we touched upon earlier, and the second is electronic money. The invention of paper money actually made possible the transfer of the power of issuing money from sovereigns to banks. What electronic money makes possible, we don't know yet. But it is a new game, a totally new game.

Just to give you an idea of what this means, let's look at frequent flyer miles. Frequent flyer miles used to be a little marketing gimmick. Now, you can earn them with all kinds of activities, and you can spend them on all kinds of things. Frequent flyer miles are a medium of exchange—money in the making. They are corporate scrip issued and managed by the airlines. Technically, frequent flyer miles are even taxable. The IRS is usually most innovative in terms of catching where new forms of money come in. Even if you don't use money, you still have to pay taxes on whatever profits you might make on trades by barter, for example.

Cendant, the largest company trading on the Internet, is another example of this. This is a company that nobody's heard of, but it did $1.5 billion in sales in 1997 on the Web, and it offers a million different products and services. A typical K-Mart has 40,000. This company has created its own currency, called Market net

cash. And as with frequent flyer miles, with each purchase, you accumulate credit. This, too, is corporate currency in the making. These are two examples of money that already exists, but is not national currency. I predict that the Internet will create other specialized Internet currencies. Why should a German buying a product from an Indian company on the Net have to pay in rupees or in dollars or in Deutsch marks? It doesn't make sense.

There are community currencies as well as Internet currencies in existence. How does that affect the system?

There are 1,400 communities now that have started their own currency system, and it is a very fast-moving field. The number has doubled in only three years. Such systems grow fastest where there is unemployment. There are three main types of local currency. In the United States, you have time-dollars, LETS, and Ithaca hours.

Ithaca hours were started by local activist Paul Glover in Ithaca, New York, about five years ago. It was a unit of account in the hour. If you go to the farmer's market, you see little signs that say "Ithaca Hours Accepted." At the best restaurant in town, you can pay half your bill in Ithaca hours. In the hotel, in the supermarket, you can pay with Ithaca currency. It is a recognized currency. Businesses can accept different percentages of it, depending on how many rounds of them go on expenses and in dollars. A farmer can accept up to 100 percent, since he can keep all the money. It's his own product. On the other hand, the restaurant can only accept 50 percent payment in Ithaca Hours, because it has a good component of cost in dollars that it cannot offset with local currency. But this creates a whole new economic system. Businesses and individuals in the community are basically saying, "In Ithaca We Trust." That's the logo on their currency.

The community is defined, in this case, as a radius of about 50 miles around Ithaca; beyond that, the currency's not acceptable. It's voluntarily kept on a small scale so that the money stays local. It plays the role that a dam would in hydraulics. In other words, it keeps the money where you earned it, where you want it stored and moved around. Otherwise, in many poorer communities, the money just flows out. For example, if you went to the poorest area in Oakland and gave a million dollars out in $100 bills, when you came back 24 hours later to find out where the $100 dollar bills were, you would find that 95 percent of them were no longer in Oakland. They will have been spent on something that immediately went out of the community. In other words, the money flows away from the poorer areas to the richer. Why? Because they have a higher return there.

That reminds me of a story that you wrote about a couple that gave cowrie shells to the bushmen in the Kalahari in the '50s. When the couple went back some time later, they expected to see necklaces of the cowrie shells, but instead they found individual cowrie shells spread all across the Kalahari throughout these bush tribes.

One by one, the shells were given out as a token of appreciation. The bushmen still live in a gift economy. With a gift economy system, things will spread automatically. They will not accumulate.

So the gift economy is where you basically depend on people giving you whatever it is you need to get along. The Buddhist monks, for example, are in a gift economy in Thailand.

Actually, all monks, even Christian monks, participate in a gift economy. One of the rules of the Benedictine Order, for example, prohibits explicit exchanges of money among the members of the

community. The reason for that is precisely because you want to create community, and the way of creating community is by gift exchanges. Now what's interesting is that some currencies reinforce community, while others destroy it.

The national currencies, because of the way they are created, basically force competition among participants, while local currencies create cooperation among them. The extreme forms of cooperation are mutual credit systems—things such as time-dollars, where the currency is created by a transaction between two people. When you and I agree on something, for example, you automatically get a credit, and I get a debit of, say, an hour. This would be barter if I did something for you at another time for an hour, but it becomes currency as soon as I start liquidating my debit with someone else in our community, and you can use your credit with someone else again. In other words, it becomes money. Money is created by the transaction itself. That kind of currency, in fact, feeds community.

The word *community* comes from the Latin *communitas*. It literally means "to give among each other." That's why monks or families who want to protect the sense of community do not allow monetary exchanges. Gifts are reciprocal. When I give you something, well, someday, you'll give something back—either to me or to a member of my community. But when you have money exchanges, it's not reciprocal. I give you the money, you give me the item. The deal is over. We don't owe anything to anybody anymore. It's very effective, but it breaks community. What's interesting with the new forms of money we've mentioned—these local currencies—is that they are actually purposely designed money systems that will create community and reinforce it.

Where does the idea of sustainable abundance come into play?

Sustainable abundance may, at first, sound like an oxymoron, a contradiction in terms. Many people think that when something is abundant, it is not sustainable. And it's true in many domains. If I try to sustain an abundance of timber, I'm not going to have many forests left. I'm going to cut all the trees down. If I have an abundance of cars, I'm going to have a lot of pollution and traffic jams. So there are domains where it is a contradiction. On the other hand, there are other domains where that's not the case. If we concentrate on the specific areas where sustainable abundance is not contradictory, we can actually solve many of the problems that we are facing today. An obvious case is knowledge. We are moving into an information and knowledge society. Information and knowledge become much cheaper to access than ever before. We have an extraordinary opportunity to actually make information available on a global level—at an extraordinarily cheap price. The more people know, the more sustainable they become.

Another domain that could assist sustainable abundance is money itself. The national currency system is based on scarcity; the currency has to remain scarce in order to remain valuable. That is the way it's designed. Scarcity doesn't really lie in the world; it lies in the money.

We could have two kinds of currency systems that are complementary to each other. Today, we only have one that we emphasize, and we consider it the only one that is valid—and that is the national dollar currency. There is no reason that it should remain the only one, and as we mentioned, other systems are already developing. There are thousands of communities that have done this. It can be done. It *is* being done. And it has extraordinary results. People can create real wealth for themselves as a community. By combining national currency with local currencies, you can actually solve many of the problems that we now face. Just make a list of all the good ideas you know about that have not materialized because of a lack of money. If you are living in a community, you can agree to use something other than national currencies for your exchanges, and you suddenly solve the scarcity factor. So that is one of the keys.

Curitiba, a city in southern Brazil, is a good example of this. It's about 400 kilometers south of São Paulo. Here is a city that has a standard of living far above the rest of Brazil. It is the first city in Latin America to move out of the Third World in one generation.

About a third of the income of a typical Curitiban is not in the national currency. It is in goods and services provided by a parallel system. One component of the parallel system happens to be garbage. The Curitibans change garbage into money. This is an innovative approach to their situation. In Brazil, there are many poor areas, without streets, so there is no way of bringing in garbage trucks. The traditional solution would be to throw some money at it, destroy everything, build the roads, and solve the problem.

About 15 years ago, the mayor of Curitiba did something different. He said, "For any bag of sorted garbage, we'll give you a token. And the token gives you value for a trip on the bus system." This is one of the most advanced bus systems in the world. It was used by *Scientific American* as an example for town organization in terms of public transportation. So, these tokens became currency—and garbage became money.

The mayor created a whole parallel economy using tokens, and the tokens are not scarce. If you have another bag of garbage, he can give you another token. He doesn't have to go to the central bank in Brasilia to ask for them. He creates these things himself. The results are quite impressive. Curitiba has received an award from the United Nations for being the most ecological city in the world. They have 55 square meters per inhabitant of green area, accessible to the public in the city. They have Bach chorales; they have music festivals. They have a free university—all because they have been able to use two parallel economic systems to their advantage.

What's the first step to creating this kind of community?

First, gather your community and start talking about what you want to do and how you want to do it. There are websites available for choosing the kind of money system that would be most conducive for what you are trying to do. It depends on the scale. It depends on the technology you are going to use. There are a variety of options already available. The main point is if you have agreement, you can create a currency and address your problems locally. By having a currency, you can take your future in your own hands.

EPILOGUE

Bernard Lietaer presents a vision of the future of money, which challenges conventional wisdom and traditional financial structures. He maintains that changes in how we relate to money are inevitable, because the wheels of transformation are grinding globally and will organically catalyze much of the change.

Mostly, his contribution forces us to ask new questions and to consider fresh scenarios and possibilities. Meaningful work, rebuilding community, and a sustainable world are all part of rethinking the money system, and he points out that this is not theory, but rather is based on pragmatic examples emerging all over the planet. In the end, it is a hopeful vision and one that can help sustain us as we recreate our relationship to money in the 21st century.