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Ikonoklast: Linn's Ivor Tiefenbrun

David Lander, November, 2001

In July 1877, Thomas Edison wrote that he was sure he would "be able to store up & reproduce at any future time the human voice perfectly," and the word *phonograph* soon began showing up in his lab notes. By the time Ivor Tiefenbrun stepped onto the audio industry soundstage, nearly a century had passed, and even discriminating listeners took the record player for granted. But Tiefenbrun had discerned sonic differences among players, and he knew that his LP12—he had built a prototype for personal use—was a superior performer. When people told him that turntables do no more than go 'round and 'round, he would rebut them by pointing out that speakers merely go in and out.

Ivor Tiefenbrun is known for his sharp tongue, and an afternoon with him proves that the intellect behind that tongue is every bit as keen. Probe and you'll find he's very much his father's son. Jan Tiefenbrun, called Jack after he narrowly escaped the Nazis and arrived in Scotland from Austria in 1939, was a mechanical engineer, and Ivor followed him into that profession. His native Glasgow, which he still calls home, also helped forge Ivor's character. It can be a brutal place, and the tough-minded Tiefenbrun grew up in its meanest neighborhood, the Gorbals, often called Europe's worst slum. It was, he relates, a place where "you had to hold your own ground."

The tenement lifestyle notwithstanding, Ivor, the oldest of three children, was brought up "surrounded by loving people" and by music: his mother sang, and his father played the violin. Tiefenbrun is also quick to point out that the Glasgow coin has two faces. Despite its tarnished underside, it did so much to fuel the industrial revolution that it became known as the Second City of the British Empire. At one time, Glasgow girdled major shipyards and the world's largest cluster of locomotive works.

Things had changed by the time Ivor was born in March 1946, but he's been around long enough to remember a steelworks in the Gorbals. "In the middle of the city, in the middle of the most densely packed area of housing on earth, there was a full-blown steelworks," he says with a laugh.

It's a pertinent point. When Tiefenbrun began his own manufacturing company in the city's Linn district in 1972, he was simply continuing a muscular, intensely proud tradition.

David Lander: We haven't met since the mid-1980s, when I interviewed you about the then-brand-new Compact Disc medium. You talked about its dark side.

Ivor Tiefenbrun: I felt the standard was inadequate. I think events have proven me wrong, that the standard was just adequate enough, but it took an awful lot of expertise—given the limited headroom and the limitations of technology—to actually do justice to the 16-bit standard in the first place. I think people who argued that the standard was adequate were proven right, and I was wrong. On the other hand, it took Linn 15 or 20 years to produce a CD player that I believe is equal to our top-performing record player, and many of our customers still don't agree with me on that.

Lander: What, specifically, took all that time?

Tiefenbrun: First of all, developing our understanding and our skills, and also, in the Sondek CD12 we did things that weren't possible a year or two previously. The semiconductor technology wasn't there; there wasn't a platform that allowed us to implement our algorithms, so it took us a long time to come up with a solution that did for CDs what the LP12 did for LPs. When you think about it, the LP12 came to the market 15 or 20 years or so after the introduction of stereo recordings, so perhaps it just takes 15 or 20 years to master a new technology and exploit its potential, to discover its limits and explore the opportunities it creates.

Lander: One of the less conventional aspects of your company is that, in an industry obsessed with racing toward the horizon and the next, even-more-fabulous format, you've expended a lot of energy trying to squeeze more sound out of older, existing formats—most recently, the CD.

Tiefenbrun: With the CD12, people said to us, "Why are you doing this when CD is going to be replaced by a new format?"

Lander: And why were you?

Tiefenbrun: Because we know that the CD12, for the next 10 or 20 years, is going to give people more music from their existing CD collections than anything else will, and that the music captured on these collections has the potential to sound much, much better than anyone could imagine. That's a rerun of our issue with the LP12, because with the LP12 they all said, "The LP's finished; it's cassette."

Lander: You once took a crack at coming up with the ultimate cassette player.

Tiefenbrun: It costs to learn, so we investigate, and we might go all the way to develop a product. We built a four-head, four-motor cassette machine and, at the end of the day, we decided that, no matter how brilliant we were, it wasn't at an acceptable standard, so we gave up. It wasn't good enough for us to do it, and that was because we didn't think it would be good enough to excite our customers.

Lander: What does it take to get Linn involved in an investigation of a new format, as opposed to established ones?

Tiefenbrun: A new format isn't automatically of interest, because until there's a sufficient body of software supporting the new format, it's unlikely that it will add very much. And furthermore, it will probably take 10 or 15 years to exploit the potential of a new format. There's nothing to stop you from accessing your original material and enjoying it. I still enjoy my LPs. And I listen to my CD12. If SACD offers the opportunity to reach an even higher standard, then I will embrace that with some enthusiasm. If something excites us, if it's above the minimum standard we require and it offers an opportunity to do a better job, if there's going to be software available that's interesting in that format, then, if we can do better—and the only way we can find out is to try—we will investigate it.

Lander: Linn Records has several SACDs in its catalog, which certainly indicates some interest in that format.

Tiefenbrun: Although it's a radical departure from the original digital model for music, SACD offers a lot more scope for future development and freedom from constraint than people appreciate. Multichannel recording offers a lot of possibilities. I don't think it's something to be opposed. I don't think it's something to be frightened of. What the audiophile is always worried about is that, somehow, the new format will set a lower standard, but there's no danger of that. The starting point is way above the starting point of formats in the past.

Lander: You've talked about the virtues of equipment that integrates video with audio. Where do you stand on hardware dedicated to music reproduction?

Tiefenbrun: While we're committed to good-quality sound on multimedia formats, for cinema and concerts and all the rest of it, we also believe that there's a place for music only. I think we've crossed a very significant boundary at Linn in the last six months or so, because we now have systems where, the longer you listen, the more you hear and the more involving the system becomes. I'm not talking about on a monthly or annual basis, which is true of any good system. Even when you listen

over the space of the first half hour, your ear and mind open and you start to get involved. 99.9% of the systems out there in the world, if you play them at a relatively high volume for any length of time, it's a relief to switch off.

A good system shouldn't be like that, and a great system should break your heart when you turn it off. So, far from believing that the days of significant improvement in this business are over, I think we're just scratching the surface. Now I know I said that 30 years ago, and we've come a long way over those 30 years, but it's just unbelievable what's happening now and what's possible now.

Lander: With what specific technologies?

Tiefenbrun: Everything. It's integration. Linn is about integration; it's about doing everything. You have to understand systems engineering, not just component engineering.

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Lander: You've noted that your company is called Linn Products for a reason: your focus is always on the product. Yet the press has often preferred to focus on you personally.

Tiefenbrun: Because I was involved in controversy, people saw me as controversial. Because the industry is about personalities, people thought Linn was about personalities. I set out by challenging conventional wisdom. They said the turntable didn't matter; I said it was critical. They said the speaker was the most important thing; I said it was the last thing to worry about. So I started off in conflict in an industry where few people understood the mechanical things and the recording aspects of the business. My objective was to build a great company; and the company was going to be about great products; and the products were to do with bringing music to people and improving their lives.

The only way to judge what we do is to listen to our products and to see how they stand the test of time. To understand Linn, pick up an LP12 or look at a Klimax amplifier or listen to a Komri loudspeaker. To see that we have an open approach to technology, look at the Kivor system. Of all the specialists, I believe we were the first into Dolby Digital. At the time, people thought, "They've gone off the rails." And when we introduced the Knekt multi-room system, people said, "Oh, you're not interested in music anymore." Not at all. I want music when I shave in the morning.

Lander: How committed are you to doing—insofar as you can—your own manufacturing?

Tiefenbrun: When everyone else goes offshore to China or Eastern Europe, we take more in-house. Our country, our society believes that manufacturing is where you add value and create wealth. And it's how you learn. Most innovative design and development, and a lot of research, come out of manufacturing. I believe, if you're in the audio business, you have to master and control all the key processes. I know that's not everyone's view, but it's my view. And that's why we make our own sheet metal and machine our own parts. We paint our own casings. People say, "Why? You can buy it cheaper elsewhere." I'm not interested in buying it cheaper elsewhere. I would go elsewhere if I could get it better.

Lander: Are you currently producing more of the content that goes into your products than you did previously, or less?

Tiefenbrun: More. We're doing more of the chip design. We're doing more software. We're doing more of the board loading. We do all our own boards. We're doing

more, and our capabilities are increasing. And as we can do more and have more control and understanding, we can learn more and create more. And we can get more cross-fertilization—because we're a multidiscipline company.

Lander: You've said that the wellspring of the precision-engineering expertise you brought to audio was Castle Precision Engineering, the company your late father founded 50 years ago and which your brother, Marcus, now runs.

Tiefenbrun: They're masters of it. They make moving parts for Rolls-Royce airplane engines. And we have a long engineering tradition in Scotland.

Lander: Both you and your father were trained as mechanical engineers. Turntables tend to incorporate fewer mechanical elements than newer audio products do. How does that evolution make you feel?

Tiefenbrun: There's a big difference between mechanical and electronic engineering, but a lot of the principles are common to both disciplines. It *is* true that the role of mechanical engineering in products is diminishing, but it still exists, in loudspeakers and CD transports and so on. It can also take on a slightly different nature. The Klimax amplifier employs the finest precision mechanical engineering, but it's more to do with machining to a very high standard, encapsulating the circuitry to preclude any possibility of microphony. And it's about heat dissipation, heat flow; there's more thermodynamics involved than there is traditional engineering, even if, at the end of the day, you can drive a truck over it without damaging it. In the CD12, we're also encapsulating different elements of the circuitry and isolating them from each other.

Lander: How many people does Linn now employ?

Tiefenbrun: About 320. We have our main assembly and design facility, and we have a training center, where we also do machining, painting, finishing. Linn Records are based there. We also have people working in Linn's retail outlet in Glasgow. We have Linn, Inc. in Jacksonville, Florida, our American headquarters; we've just built a new retailer-training facility there. We also have an office in Fort Lauderdale and people based around the country.

Lander: So Linn is now a sizable company, with a product line so broad that you joked earlier about coming up with enough designations incorporating the letter *k*, which has been turning up in your product names since you christened the Sondek LP12. Plus, as you suggested earlier when you referred to your "open approach to technology," the line has become very varied. The Knekt is a multi-room music-distribution system. The Kivor is an archival and retrieval system designed to store and access thousands of CDs and radio broadcasts without subjecting them to compression. How did all this happen?

Tiefenbrun: I made one product; I wanted to make a system. Once I'd made a system, I wanted to spread the sound of these sources throughout a home. Once I'd done that, I wanted to integrate audio with video. Once I did that, I wanted to integrate with a computer. What do I want to do next? Well, the company's getting more and more involved with commercial [installations] and performance.

Lander: As an example of your commercial installations, you equipped the public spaces on the *Queen Elizabeth II*, the ocean liner. Are there many cruise lines, hotel companies, and the like willing to pay the price of Linn quality?

Tiefenbrun: Sometimes Linn is the lowest-cost solution. Not just because it lasts longer—it's more cost-effective to take Linn to 128 zones or whatever on a liner than it is to put the most rubbish standalone system in every cabin. Linn can deliver a power amplifier the size of a car radio that puts out over 1000W and weighs less than 2kg. It sounds fantastic. The competition might weigh 100kg and not sound as good.

Lander: So you see your future linked, in some degree, to the high end of the commercial market.

Tiefenbrun: I believe that, in the future, there's going to be less and less distinction between professional, domestic, commercial, mobile, and so on. I think that there

are going to be more and more common elements, [due to] size, integration, interconnectivity between products. Wouldn't it be nice to access all your music, any which way you wanted, and make any selection you want, and take it with you when you go on a hike or go in your car? That is exciting. I see that as more music, better music, for more people.

Lander: Some *Stereophile* readers might see it as Linn's abandonment of its traditional market.

Tiefenbrun: When I had my first child, I thought, "This kid's so perfect, just the way I planned it." When the second one was going to come along, I thought, "How could I love another one?" Of course, you do. You can love as many children as you're lucky enough to have.

Lander: Can you love as many customers?

Tiefenbrun: Yes. I think you can.

Lander: We're talking in May, at the New York Hilton. This is the first day of Home Entertainment 2001 and, in just a short time, two people have approached you to say they've been using the LP12 for 30 years, and a third, clearly delighted to be sharing an elevator with you, called you Sir Ivor. He had to be referring to your MBE, which Queen Elizabeth conferred on you in 1992, 20 years after you founded Linn. Now an MBE doesn't entitle you to be called "Sir," but you do get to use those very prestigious initials after your name. ["MBE" stands for Member of the Most Excellent Order of the British Empire, an Order created by King George V in 1917 to honor Commonwealth subjects for conspicuous service.] I'm sure our readers would be interested in your reflections on the journey that led to that honor.

Tiefenbrun: I'm the kind of person who's almost never satisfied. I'm always on a quest; the journey is the interesting thing. I'm always trying to improve. I'm intensely self-critical. I can be very argumentative. I'm results-driven. But as I've got older, I've probably become more tolerant, more understanding. I hope I've learned things. I'm still quite pushy, I suppose.

Lander: You can take the boy out of the Gorbals, but you can't take the Gorbals out of the boy. You had to be that way or you'd have gotten knocked on your behind.

Tiefenbrun: Well, I did, frequently. [*laughs*] You know, I'm not any better, I suppose, at understanding myself than anyone else. It took me 'til about 50 to understand what I really enjoy. I realized that the essence of what I enjoy is cracking a problem and taking an idea through to a solution, to a design or something. That's the core of what excites me.

We're building a new factory. We just got news that I got the final bit of land I needed; we're already ordering steel and cutting the ground; construction's full-blown in a couple of weeks. We hope to double our capacity by the end of this summer, but the interesting bit for me is over. It was solving the conundrum—how, where, the design. That's the thing, I discovered, that I enjoy most.

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