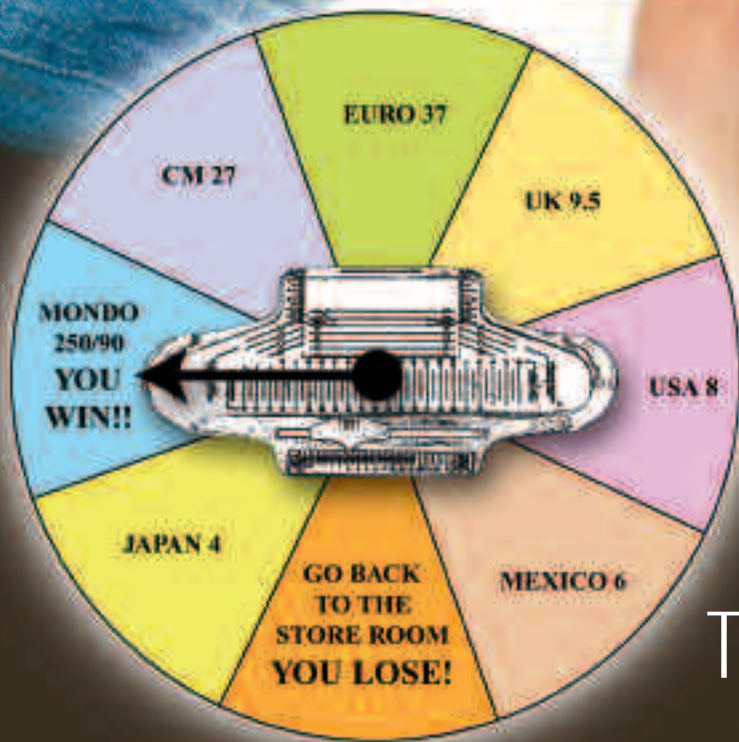




The size gamble

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This spring marked the thirty-third anniversary of my decision to make a career in the shoe industry. During this time I have made many of lasts and measured many feet. I have also learned many things regarding footwear manufacture. However, even if I spend another fifty years at it, I will never understand how or why we came to invent so many different sizing systems. And, even more baffling, why we would want keep them all.

Even more incredible is the fact that these specific sizing systems are tweaked, altered or even completely ignored by last makers, shoe factories and entire markets. Yet shoes are dutifully stamped with one or more sizes to show that fit standards have been adhered to and that your feet will love you if you buy them.

ANOMALIES IN SIZING

In the 1980s, when the stamping of sizes from multiple grading scales in shoes first became popular, I often found it confusing. For example, one person would tell me that an American size 6 was a European size 37 or a UK size 5. Another would say it was a European size 36 and a UK size 4½, while yet another would claim it was something else entirely. So, one day

I decided to see what the shoes themselves actually had to say and looked at a number of different women's size 6 shoes for sale in a single store. I covered numerous styles and multiple brands and came up with as many as three different corresponding sizes on both the European and UK scales for the same American size.

So, a woman who wore a size 6 could go into that store and, assuming the labels in the shoes were correct, purchase an American size 6, three different European sizes and three sizes covering a range of one-and-a-half sizes on the UK scale, and expect them all to fit the same. And this, remember, was twenty years ago when we allegedly still held to some fit standards. What ever might the size range be today?

ANOMALIES IN MEASURING

Early last year I carried out some work at a Pedorthic shoe store. On the first day, one of the Certified Pedorthists wanted to see how this last maker measured feet and asked me to measure her using a Brannock Device. I did what I had been doing for the last 20 years and asked her to sit down and place her right heel at the back of the device.

As I was aligning the arch length pointer on her medial ►

Brannock foot measuring device



joint she stood up. "Why are you standing up", I asked? I was told that's how you use a Brannock Device. I explained that this made all the sense in the world to me. Of course you would want to measure the foot in a weight-bearing position. However, I explained, the Brannock Device is meant to either be used with the foot lightly resting on the slanted end of a fitting stool or at a 90° angle to the floor while the customer is seated. I was quickly but politely informed that I was wrong and that the proper method was with the person standing.

While I did not want to start a row on the first day, I felt I just had to tell her that I had a two page letter along with six pages of instructions on how to use the Brannock Device, dated May 24, 1983, and all signed by Charles Brannock himself, inventor of the tool and founder of the company. The phrase 'DO NOT STAND' appears repeatedly in bold capital letters. Be that as it may, I was told, feet in 'that' store were measured with the person standing in a full weight bearing position. We parted friends but both convinced we were right.

I called a friend who was still a model maker at the only remaining last manufacturer in the USA. Surely, if there had been a rule change, he would know about it? After all, this is the point where fit is born—the last. He said that he still measured people in a sitting position as he had always done. Needless to say I couldn't wait to see the look on the lady's face when I confronted her with this evidence the next day.

Imagine my surprise when she greeted me next morning with a knowing smile and four pages of instructions printed from the Brannock Device website. A Brannock Device website? When did that happen? And yes, you've probably already guessed it, the new instructions stated that the person being measured should 'NEVER BE SEATED' but always standing with weight evenly distributed. At this point, her smile changed to one of triumph.

When I contacted Brannock I was told that about ten years earlier they had run a study with a 'major manufacturer/retailer' and discovered that about half the shoe fitters had customers sit and half had them stand. Furthermore, the survey determined that, regardless of the method used, good professional fitters achieved about a 90% success rate. I asked if they were aware that the only production last company left in the USA knew nothing of this rule change and that neither was I—nor indeed anyone else that I knew to be involved in the development of new last styles. The response was that since both methods were achieving success it did not seem necessary to 'rock the boat' with this new information.

CLOUDING THE ISSUE

Of course there will be a high success rate. It's obvious. If you arrive at an approximate size then select it plus one on either side of it, the chances are you're going to fit your customer—especially if you allow for additional trips to the stock room. And that, in reality, is pretty much what all of our sizing systems have been reduced to. But, how can this have happened when the basis for the entire size scale—at least in the case of the UK and America—is that one size is equal to the length of one barleycorn? (See *World Footwear* September/October 2004 for historical details).

The other size scales don't show up too well either. For example, all of Europe wanted to use the CM scale, which made sense. As your foot became bigger you wore a progressively bigger size and also, when young and reaching children's size 13, you avoided the sudden plunge back to a size 1 when your foot grew a size bigger. Unfortunately, France wouldn't have it that way and cut the CM scale by two thirds, called it the Paris Point system and then held out until the rest of Europe gave in and joined it.

COMPARISON OF SIZING SCALES

Now we have American sizes, UK sizes, European sizes, Japanese sizes, Chinese sizes, Mexican sizes and on and on and on. And, don't let me start about the failed (thankfully) effort to standardise sizes using the Geometric system. This was not done to achieve any upgrade in fit but rather to make it easier to produce and use shoe making machinery. The system was based on a series of points that, if you had really bad vision and had forgotten your glasses, might look like a normal metric scale. The difference was that the distance between one point and the next on the scale was made by adding 3% to the distance between the previous two points. So, as you graduated up the scale the distance between points became exponentially greater. Consistent but nothing remotely connected with fit.

Comparison of sizing scales

USA (M)	USA (W)	EURO	UK (M & W)	MEXICAN (M & W)
5	6	36	3.5	4
5.5	6.5	36-37	4	4.5
6	7	37	4.5	5
6.5	7.5	38	5	5.5
7	8	38-39	5.5	6
7.5	8.5	39	6	6.5
8	9	40	6.5	7
8.5	9.5	40-41	7	7.5
9	10	41	7.5	8
9.5	10.5	41-42	8	8.5
10	11	42	8.5	9

**This chart is just one of many variations of the way to convert some of the more popular sizing systems being used today for adult sizes. It is by no means to be considered the only 'correct' conversion table.*

DUAL SIZING CAN BECOME MEANINGLESS

The manufacturers of the Lightbeam 3D foot scanner recently asked me to send them a comparison chart of Brannock (American) and Mexican size scales. Everyone I contacted in Mexico only referred to sizes that reflected the American scale less a size, so that a Mexican woman's 4 was equal to an American men's 5 and therefore an American women's 6.

Like most women, my wife likes shoe stores and just loves to browse—though fortunately for me, seldom buys. Following her around the other weekend, I happened to notice that there were shoes stamped in American sizes plus Mexican sizes that were double-digit and yet did not conform to either the European Paris Point or CM systems.

The sudden appearance of a 'second' Mexican scale should really not have surprised me. You still see variations of the European scale in different countries and it's easy to search the Internet for shoe size comparison charts and come up with a wide variety of formulas. The Brannock Device has been accepted as the benchmark in American sizing for decades and there is exactly one size difference in the two scales, with a men's size 7 equal to a women's size 8. Yet, for 30 years I've heard this conversion range from that of one size to one, one-and-a-half sizes (men's 6½ equals women's 8) or even two sizes.

My point to all of this is why is it so hard to pick a scale that everyone can be happy with and stick to? That scale has actually been invented and came close to being adopted in the late 1970s and early 1980s. It was called Mondopoint and the genius was its simplicity. Your shoe size was based on foot length and width across the ball in millimetres. So, if your foot was 250mm long and 90mm wide at the ball tread your size was 250/90. A couple of grading variations were considered and 5mm and 7.5mm per size come to mind. Of course with this type of system you could grade however you wanted because the information was actually in the size, rather than the size containing some random number that in effect meant nothing.

Alas, although Europe and Australia (where the system was invented) embraced it wholeheartedly but the USA—always fiercely independent in these matters—refused to do so and Mondopoint quickly died. If the world's largest consumer of a product rejects a basic standard for that product, it won't be around too long. But then again,

most of America's early settlers came from England and started off using an English sizing system but then decided it had to be less one, or one-and-a-half or two sizes. Or, they just picked a number. The point is, it's English but then it's not. It's no wonder everyone is confused.

The Bible says that after listening to our ancestors endless chatter in the Tower of Babel, God gave us different tongues to speak. It would appear that He may have also included shoe sizes. It's therefore no surprise that almost everyone I speak to is planning to start their own mass customisation shoe company. The tools are available, the time is right, and there's a definite need. Now if only we knew what size to start with... 

Bill Tippitt has thirty years experience as a last maker and is a leading expert on last development and fit.

