

# Scottish Curling-Ice Group

## SHADES OF GREY

Everyone has an opinion, and of course every opinion is valid. The problem really only starts when someone, with a carefully considered opinion, decides that his opinion is the truth. Considering that some six billion individuals on our planet have an opinion and are all entitled to one, there must be six billion shades of grey.

The curling world is not immune from this. Curling as a game attracts individuals from all walks of life and, while most of them readily adapt to a team effort and a club structure, some will always insist that their idea of the spoken truth is better than anyone else's private conviction. This is evident from every analysis of every aspect of curling, and especially true when it comes to curling ice. Curling ice is definitely a grey area, of all shades of grey, because of its complexity and the general ignorance amongst those who know much less than the individual who provides it for them week after week. If there is a problem in curling worthy of serious examination, this is it.

### The ice

From the report *Essentials Of Curling Ice*, it is clear that the ice has to be level and consistent. From *Level* it is obviously not that simple, because these concepts are relative to other perceptions and, above all, to someone's opinion. Consistency also becomes a problem of definition, for which there is no definition other than someone's opinion. Just one pickup and all the theoretical consistencies are out the door, suddenly subject to everyone's opinion regarding dirty ice, filthy brushes, outdoor clothing, old shoes or plain sabotage from the opposition.

It is extremely difficult, if not impossible, to create and maintain a perfectly level sheet of ice, even if such a concept can be defined. It is certainly impossible to keep such a surface, produced by using a liquid – in a reasonably solid state but a liquid all the same – damaged at every stage by anything that comes into contact with it, totally consistent. It almost goes without saying that it is impossible to keep such a surface perfectly clean, even by sweeping.

The quality of the ice will always be subject to opinion, as every curler knows, and can only be defined in shades of grey.

### The stones

These lumps of granite are precision engineered to conform to standards of weight and size, using types of granite suitable by consensus to the purpose. Consensus = opinion, but let us give the manufacturers at least some credit and ignore that. However, when they have made such a marvellous stone, by the thousand, they do something to the running band, the bit at the bottom, the part that attacks the perfectly level and consistent ice surface. And this something they do to the stones is not consistent, or defined, or even made known to anyone outside the inner circle of the factory – it is secret, variable, inconsistent and can not only vary from set to set but also from stone to stone. To make matters worse, the running bands too are subject to wear every time the stone is played, and the stones are not all played the same number of times or in the same way – even if a set of stones was perfectly matched on day one, it will not be so on day two. There are as many shades of grey as there are curling stones.

Curlers do not understand that some 80% of a stone's behaviour on the ice is decided by the shape and texture of its running surface. Manufacturers of stones do not really understand the complexities of curling ice and can only do their best to establish some degree of consistency for their stones. The reality is that, when stones begin to behave inconsistently as a set, there will not be much mention of rogue stones except amongst experienced and knowledgeable curlers – the ice will get the blame first. When that doesn't improve matters the stones could well be considered, but more likely the ice technician will be next in line.

### The ice technician

He's the one who makes the ice and gets the blame. He will start as a volunteer, probably, and develop a liking for the job because making curling ice is addictive. Once in the job he will install an ice pad using all the knowledge he can find around him, and he will decide it is level and beautiful even when it isn't. After a few years at it he will feel competent and in control, but his stones will still not behave consistently or curl as much as the curlers want. The club decides to refurbish or replace the stones, at vast expense, and for a few weeks all will be well – then the stones start straightening out and he has the same problem again. Now he has to decide if he must have the stones refurbished again, or if he's doing something wrong with his ice.

There are not many curling-ice technicians in the world, and very few of them really know enough to be able to manipulate the parameters in such a way that they can control the behaviour of their stones – once the stones go funny, most of them are in trouble. The experts are busy making ice in arenas, but arena ice is a different problem to club ice and such as can be learnt in arenas will not save the average club technician. Those who manage to learn from manuals, forums and other more experienced technicians will eventually find a way to produce consistency in their own rinks, which they now proclaim to be THE way for everyone. Those who learn all there is and become extremely proficient, so much so that they dare criticise the experts in the arenas, quickly find themselves on a black list and confined to their own rinks, and their knowledge stays there with them. Ice technicians working in their own curling rinks lead a solitary life in a small environment. Even if they find the time to communicate they will usually be too tired to bother, why bother, why not just carry on as before. Very few competent technicians have the time or opportunity to spread their knowledge, and not many technicians will learn much from a curling-ice course in a few short days. The real knowledge stays hidden and everyone sticks to their own better idea of what works for them. There are as many shades of grey as there are ice technicians, except in the hands of the very few – for the remainder it is certainly a grey area that doesn't have much to do with grey matter.

### The parameters

Never mind how much the weather, temperature, humidity and all else can change in one location, just imagine how different the parameters are in curling rinks all over the world. In cold rinks they have to take sandpaper to the running bands to make them curl, which in warm rinks will make them curl off the sheet. In cold countries they don't need dehumidifiers because the air is already too dry, but in warm countries they can't operate without them once it starts raining. Add to that power failures, equipment failures and human failures, and sticking to the most basic parameters quickly becomes a nightmare. Simply trying to establish a consensus of parameters between say Canada and Scotland is impossible, because there are so many variations in buildings, weather, equipment, requirements, water, stones and anything else that can possibly exist in a curling environment. Even when it becomes reasonable possible, the parameters will keep changing during any game of curling, and only the most skilful and experienced technicians will be able to hold their own – assuming they have the necessary equipment, of course. There will be as many shades of grey as the skies outside, because nothing in a curling rink is ever constant.

### The curlers

These are the customers who are always right. Any ice technician will agree that these people should not be allowed onto the ice at all, because they will only make it worse, but of course they have to be allowed to play their games of curling. Tough, that's the job. But the vast majority of curlers do not understand the problems of curling ice, the complex interaction of the parameters, the intricate relationship between granite and water molecules at  $-4^{\circ}\text{C}$ . The vast majority have a flawed delivery and never play anywhere other than in their own rink. The few who are fortunate enough to have a very competent technician with very consistent ice will think everywhere else is the same, which it isn't. The very, very few who can curl a bit, compete here and there and learn that good ice is fantastic, will go home to their own rinks and say nothing, for fear of upsetting someone. There is a small number of elite curlers who can win a championship, and a much smaller number that can do so again and again. Perhaps they can be considered beyond the shades of grey, because they tend to curl in arenas where the best technicians produce the best ice. Yet, like most curlers, they will find something to blame should they lose – only when all the shades of grey have been removed from the ice, stones, technicians and parameters will they concede to better opposition with humility. For all other curlers, however, there are only endless shades of grey, because everyone is entitled to an opinion.

### The "board"

These are the bosses, the governors and the governing bodies. These will include volunteers for the most part, who have through their efforts risen amongst the ranks because their opinions seemed to be more valid than others. These will also include very competent individuals who actually know what they are talking about, not to be confused with those who seem to know, as well as a number of political animals climbing career ladders and social staircases, the wealthy, a few competition winners and even the odd dedicated ice technician. If the board of a curling rink contains just one individual who understands all the shades of grey, it will be a very fortunate rink, probably unique. This is the same in every activity in the world, endless shades of grey.

### Why bother

Most curling-ice technicians will agree, if their customers are happy they are happy too. Considering all the shades of grey involved that will be some achievement, and considering that these customers pay his wages and hardly ever curl anywhere else this is a healthy state of affairs. It occurs in many rinks and more so now than in the past, and some of the very best curling-ice technicians who find themselves on a black list are more than happy simply to work away at their own venues and ensure the welfare of their customers.

Sadly, inevitably, this is not usually the case. Many curling rinks struggle to survive through lack of customers, caused by a lack of quality ice, caused by shades of grey. The ice technician becomes so demoralised that he certainly asks "why bother", and before long the rink will close. Other rinks persist with a system that has worked for many years, but some of their curlers have played on good ice and are asking why their own ice is not as good. Opinions arise, arguments ensue, shades of grey prevail, but nothing changes because no-one knows how. Asking an ice technician for his opinion is not often an option; asking an expert's opinion can insult the ice technician (or the whole club!); dismissing an ice technician is losing the devil you know. The rinks continue to persist with shades of grey.

From the above it is clear that there is a very simple way to solve the problems. It is not about money, nor about experts, nor about new stones, nor about more curlers or better competitions. It is simply by providing good curling ice through the hard work of a competent ice technician. He can solve the problems with the ice, stones, parameters, curlers and the board, simply by doing his job well. Those technicians who are allowed to do this and are given every assistance and support invariably succeed, the facility prospers and everyone enjoys their curling, never mind the shades of grey.

But where to find such an individual, when there is no structure, no course, no genuine financial reward, nothing whatsoever that produces excellent curling-ice technicians? Every governing body or elite specialist certainly tries, that is not the problem, but do they succeed? Yet again everyone has an opinion of how this problem is to be solved, how much can they be taught in a week, how can their work be evaluated, what is good ice, where's the money coming from. And then, just as the right man appears from the primitive mists (still grey), eager to do the work, he discovers that the building is poor, the equipment is inadequate, the workload is impossible and he doesn't have a hope – he turns around and walks away. There is only so much a good man can do on his own, and the good ones will walk away.

There are no easy answers to the problem, but there are intelligent ones. Nothing in the world has ever progressed without the application of science, more so now than ever before, because science deals – as far as is possible at the time – with black and white. While there can be endless shades of grey and many shades of white, there is only one shade of black, one truth, one valid fact. If curling wants to deal with the problem it will have to embrace the science and those who develop the science, to use the science, teach the science, provide the answers that matter to the technicians who want to learn.

Only through science can the buildings be constructed to suit the requirements of curling ice. Science explains how and why water molecules do what they do, and it becomes ever easier to create that impossible level and consistent surface. Science will provide the specifications of what should happen to the running bands of the stones before they reach the ice, and whether it is at all necessary to refurbish them every so often when they don't do as they should (see *Friction versus Temperature*). Science explains why and how to control the parameters, not to mention the help of a decent computer-controlled steering system. Whether science will be able to deal with the endless opinions of curlers and bosses is not clear, but if they're happy with their curling it won't matter.

This report is being provided as a Problem, because it deals with a problem. Also see *The Circle Rink*.

*John Minnaar*  
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