A Guide to choosing an instrument

Choosing an instrument is not an easy thing to do, even for an experienced musician. This guide, based on over thirty years of experience with both new and old instruments, aims to help you in that process by identifying the questions you need to ask and the things you need to look for.

As a string player you already know a lot about instruments, what feels comfortable, how to produce sound, and in making a choice you need to trust your own judgement. However, you may not have much experience playing different instruments, have thought much about comparing tone colours, or know what factors make an instrument easy to play.

Sound

Sound is the most important aspect of any instrument, so the first step is to identify what sort of sound you like. Do you like a very clear sound, or one with greater depth? How focussed do you like the sound to be? Do you like the focus to be narrow and penetrating like a laser or a bit wider and warmer like a beam from a torch? Do you want an instrument that 'plays itself,' or, do you want to get the last ounce of sound out and work a little to get it?
A good way of finding out what you like is to play other peoples' instruments, discuss how it sounds, both when you are playing and as a listener, before you even think about looking for a new instrument.

Trying an instrument

When you go to try an instrument, it is important to minimise the variables, so use you own bow, and play your existing instrument in the room to learn what the acoustics are like. If you are learning, don't try playing a new or difficult piece, because you need brain space to concentrate on the sound of the instrument. To start with, slow scales or arpeggios are adequate, as you work out how to use your bow for that instrument, and get a basic idea of how it sounds. Then you can go on to do other things, playing loudly and quietly, playing all over the instrument, broken chords, spiccato, harmonics, false harmonics etc.

If you like an instrument, most makers or dealers will allow you to take an instrument away to try. This is the time to get to know it in your own home, in acoustics that you are familiar with. You also should try it in the orchestra or other groups that you play in, play it in front of your colleagues or teacher and hear them play it for you. This will allow you to build up a picture of how the instrument works in different settings and how it sounds from a distance.

What to listen for

Most people would say that the first requirement of an instrument is that it should be even all over, and technically that is probably right, but to me it is more important that you like the sound of the instrument, because that is the sound that you are going to have to live with. Then comes evenness over the strings. Although the quality of the high strings is different from the low ones, the change should be gradual, so there isn't a shock when you go from one string to another. Besides a similar quality of tone, the instrument should respond readily to the bow on all the strings, so if you are playing chords over three of four strings, all the notes are clearly articulated and heard.

Playing in

Playing in is the time when an instrument is settling down; with a new instrument this is the first few weeks or months of being played, with an older instrument it is the time after it has been in a workshop to be repaired or fitted up, or when it has not been played for a while.

With any new instrument there is a significant change to the sound in the initial stages. It is most rapid in the first week, becoming progressively less pronounced over the following months. How long this process takes will depend on how much and how well it is played. Many musicians will say how their instrument is still improving after months or even years, and because they are tuned into their own instrument and are interested in the small differences, these small improvements are important. To a listener, however, these later changes may scarcely be noticeable, which is another way of saying that the instrument is changing much less than in the early stages and is near its full potential. What playing in does not do, however, is change the essential quality of an instrument. So, if it has areas which don't work very well, then either it needs some adjustment [which any interested maker or dealer will be happy to consider] or it is an inherent problem with the instrument. If you don't like the character of the instrument now, it is not for you.

Choosing an instrument is a bit like choosing a partner, there must something you are attracted to at the beginning, on closer acquaintance you should discover new depths and other interesting qualities and then learn how to work with those qualities to enhance and develop your own life.

What is actually happening in the playing in process is not understood. The way I like to think about it is that for most of its existence the wood has been part of strong, relatively inflexible column which supports a massive weight of branches and leaves; then someone comes along, fells the tree and thins it down, and suddenly expects it to respond to vibrations, but for the wood to get used to vibrating is going to take some time.

In practise a new instrument can sound a bit raw, somewhat unrefined, and in a scale some notes may be less strong than adjacent notes. With playing the weaker notes get stronger, and the overall sound becomes freer and more refined. It is like learning to sing again after your voice has broken; the instrument is finding its own voice.

Comfort & ease of playing

There are many small things which contribute to making an instrument comfortable the size, weight, neck shape, and aspects of the fitting up. If you are experienced and have played many different instruments you can rely on your judgement as to how an instrument feels, but especially if you have only played one instrument, having a bit of technical knowledge can help you understand why things feel comfortable.

Size

Even with full-size instruments there is some variation in size, particularly with violas and cellos. The usual measurement given to indicate the size of an instrument is the length of the back, but there are other dimensions which significantly affect how an instrument feels to play.

Violins

There is relatively little variation in size between violins, indeed some people would say that having an instrument which is outside the norm is wrong. Personally, I think that view is a bit extreme, as for people who have short fingers and short arms there is certainly a place for an instrument that is a bit smaller than normal.

The standard measurements for a violin are - length of back 14", neck length 130mm, body stop 195mm. In practise the body may be 3mm longer or shorter, but having a neck more than 131mm is unusual. The body stop may vary by 2 to 3mm. In this case, should the neck length be normal, instead of placing the centre of the bridge in line with the inside nicks of the f holes, most violin makers would put the bridge up to 2mm forwards or backwards to make the bridge position 195mm. Some slightly small instruments may also have a shorter body stop and shorter neck length, [say 192 and 128mm] which would keep the proportions constant, and be easier for someone with small hands or short fingers.

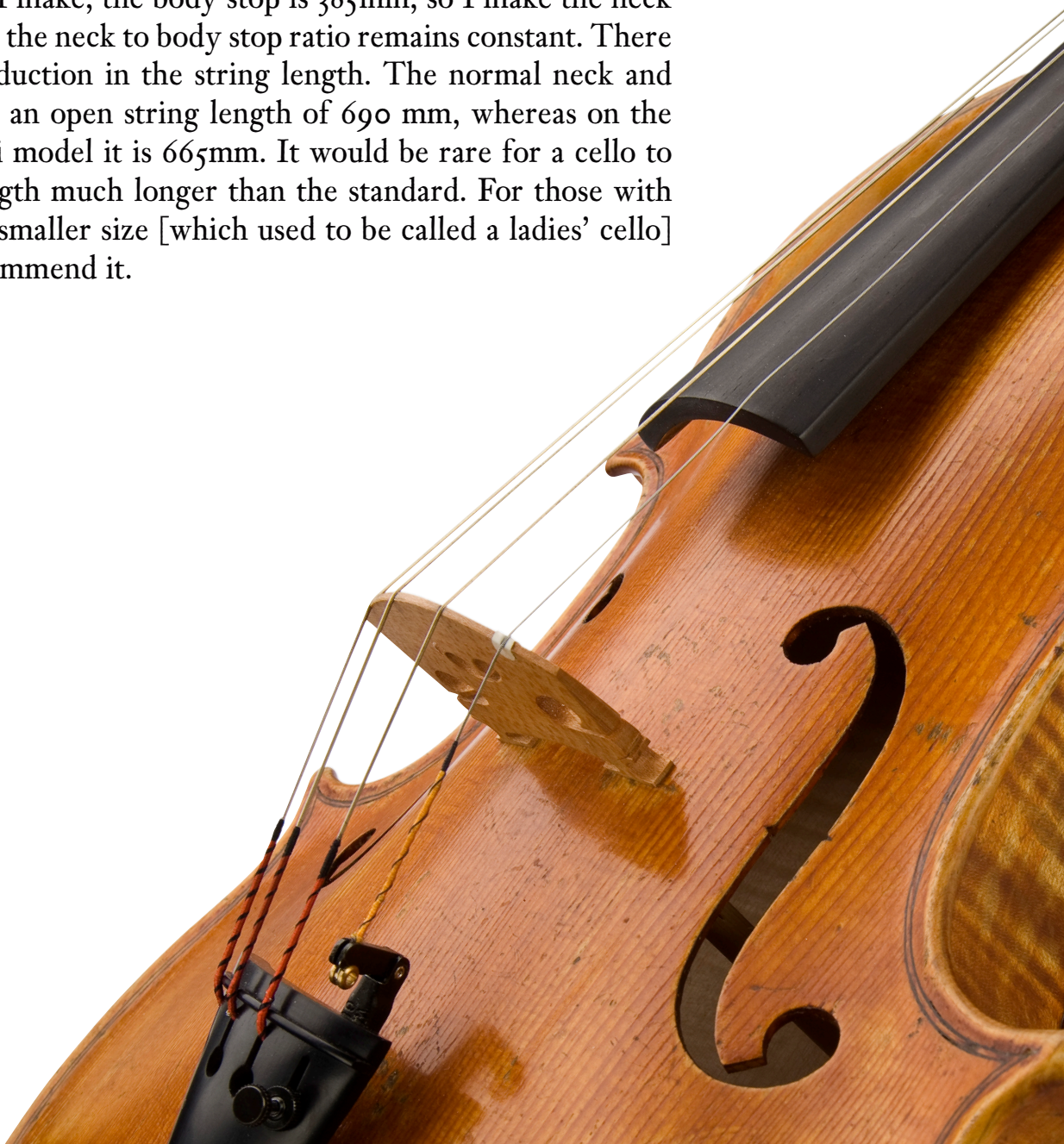
Violas

Violas vary widely in size, not just in how long the body is, but also in the width, length of the neck, and position of the sound holes. These factors all impact on the feel of the viola. Because the variables in different aspects of viola size are so complex, and so important to a violist, a detailed discussion is to be found under 'guides' on my web site.

Cellos

Because the cello has a spike and is held between the knees, the issues concerning size are somewhat different from violins and violas. The generally accepted length of back for a cello is about 29 ", though there is considerable variation, many Stradivari cellos for example are 30", and others, including classical Italian and old English cellos are as small as 28 ". There is even greater variation in widths, so very wide ones may be uncomfortable to hold between your legs, and ones with wide and square upper bouts may make playing in thumb position more difficult.

The usual neck length of a cello is 280mm, with a body stop of 400mm. If the body stop is a little different, moving the bridge up or down so that part of the bridge feet still lie on the line between the inside nicks of the f hole is an accepted practice. Keeping the ratio of neck length to body stop the same means that when you slide up the neck to fourth position, you thumb comes to a halt at the neck root at the right place. On slightly smaller cellos, such as the Andrea Guarneri model I make, the body stop is 385mm, so I make the neck length 270mm so the neck to body stop ratio remains constant. There is therefore a reduction in the string length. The normal neck and body stop giving an open string length of 690 mm, whereas on the Andrea Guarneri model it is 665mm. It would be rare for a cello to have a string length much longer than the standard. For those with small hands, the smaller size [which used to be called a ladies' cello] has much to recommend it.



The set up

The setting up, or the fitting up, refers to the bridge, soundpost, fingerboard, nut, saddle, pegs and tailpiece. For comfort of playing it is largely the relationship between the bridge, fingerboard and nut which make a difference, in conjunction with the shape of the neck and the distance between the belly edge and the fingerboard.

How it works

When you use your bow, you need it to be able to play one string at a time, so that determines the amount of curve on the top of the bridge. If it is too flat you won't be able to play hard on one string without touching another, and if the curve is too rounded, you will need to move your right arm too much to cross strings.

[On cellos, on wide cellos in particular, the edge of the belly in the C bouts can limit bow movement when playing on the A string, so many instrument makers make the neck and fingerboard slightly higher on the A side. This also means you are not lifting your right arm as much when playing on the A string.]

Because the bridge is curved, the fingerboard is also curved to maintain the strings at an appropriate height above the fingerboard. The higher strings, which are thinner, are nearer to the fingerboard than the lower strings. The fingerboard is a consistent curve throughout the length, but it is also slightly hollow along the length. This is to allow the strings to vibrate without rattling on the fingerboard.

If a string is very hard to press down it could be that the bridge is too high, or the nut may be too high, or the fingerboard may be too hollow along its length. If the fingerboard is uneven the strings will feel different and unpredictable under the fingers, and if it is worn, intonation can become difficult, particularly noticeable when playing fifths. These problems are unlikely to occur with new instruments.

The neck should feel smooth in your hand, it should be not too wide and a be rounded V shape, so that [on violins and violas] the angle between your thumb and first finger is not too great. At the neck root [where your thumb stops when going up the neck into a high position] the curve needs to fit your thumb comfortably and the neck root needs to be sufficiently rounded that the pressure on your thumb decreases as it slides round towards the edge of the belly.

Weight

Musicians are very used to feeling the weight of an instrument, and especially if is heavy, one should immediately think about the sound as heavy backs and bellies usually indicate that they are too stiff.

With violins the variation in weight is not all that great, with cellos any difference has little effect on the comfort of playing, though it may affect the sound. With violas there is the greatest variation in weight because of the wide variation in the size, but the way it feels is not just due to its absolute weight, but where that weight is found. A large scroll, with shoulders like a cello scroll, particularly on a big viola with a long neck may add relatively little weight, but its distance from your body makes it more noticeable.

Model

Violin makers talk a lot about the model of instruments, whether perhaps, it is a Strad model, a copy of a del Gesu, or loosely based on Guadagnini. The model does make a difference to the sound; a narrow instrument, for example, with a high back and belly, steep archings and very scooped fluting is likely to sound sweeter, but it will tend to be less powerful than a wider instrument with lower and flatter archings. However, my experience is that the sound of an instrument is mostly influenced by who made it, the culmination of all the decisions a violin maker makes whilst building an instrument have a greater effect on the sound than what model they choose.

To illustrate the point, a colleague of mine once overheard two musicians discussing the tonal characteristics of two instruments, each one made by a different violin maker, both of whom my colleague knew. Even though the musicians were describing the character of sound produced by the two instruments, the same adjectives also accurately described the characters of the individual violin makers!

New or old?

Whether you are drawn to a new instrument or an old one, there are pros and cons to both.
With a new instrument you should not need to think about its condition, and depending on the care and experience of the maker, it will be set up and adjusted to work well. It will however, need to be played in, and probably will need some adjustment to the set up after a few weeks or months. This is usually a normal part of the service, because any good violin maker will want to have their instrument working as well as it can.

An old instrument is less likely to need playing in unless it has had recent restoration, or has been left unplayed. So you are more likely to have an instrument that won't change much in sound. No matter whether you buy from a dealer, from an auction or privately, an old instrument may not be set up ideally to get the best out of it. To find out about the quality of the set up, take it to a good repairer or maker.

With old instruments the rarity value pushes the price higher. These prices tend to reflect the best of that particular maker's work, adjusted to some extent for condition, even when one example may be tonally lacking compared with other examples.
As a rough guide, I tend to think you get an equivalent sound for half the money if you buy a new instrument.

Condition

Many old instruments have been damaged and repaired. Sometimes these repairs were done badly and sometimes they are so good that it is very hard to see what has happened. To find out, you need to go to a violin maker or repairer you can trust. This is like have a structural survey before you buy a house. A bad repair can devalue an instrument more than unrepaired damage, because it may take more time to put right, whereas a very good repair can disguise the fact that some damage has occurred. Either way, you need to know the situation before you buy. Some repaired damage, such as a soundpost crack, will devalue the instrument though it may be absolutely sound structurally.
Condition should not be an issue with new instruments.

Antiquing

Many instruments made nowadays, and many made over the last two hundred years have been antiqued before they left the maker's workshop. Some people like this, but others want a new instrument to look new. The antiquing makes no difference to the sound, but having a variation of colour where varnish has been thinned or removed does add to an instrument's appeal for some people. A new looking instrument, because it is less work, may be cheaper than an antiqued instrument.

Value

Old instruments are valued largely like antiques, based on the price that a similar instrument made. Because more people play instruments nowadays, the price of old instruments has shot up over the last 30 years, which has also led to people buying them as investments, further increasing the prices. This includes some instruments which seem to have only modest aesthetic or tonal qualities. So you need to know why you are buying; is it as an investment, is it for tone? If you are buying for the sound, some instruments sound better than the price would suggest, whilst others sound worse.

New instruments are generally priced so the maker can make a living from their work. This may vary according to where they live, and other circumstances. Some perhaps charge more than average because they deem their instruments are worth it, but for me I would prefer to charge a little less, as long as I can make a living, and have happy customers who appreciate their instruments and consider them good value. As to their ongoing value, I don't know of any instrument of mine that has been resold for less than what it cost, and sometimes it has been significantly more.

Conclusion

Choosing a new instrument is not something that should be rushed. Don't be persuaded into a making a hasty decision before you are happy in your own mind. There are many things to think about, so it is good to do some homework before you start to look at instruments. Being clear about what you are looking for whilst being open to different possibilities will give you the best chance of finding the right instrument for you.

I hope this guide has been useful, and if I can help further, please call me.

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