Our Fingers

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It is mostly with our fingers that we make music and it is our fingers that connect the music that is in us to our instruments.

There are many instruments that we play with our fingers, indeed the only ones that I can think of that are exceptions are the real natural trumpet (not the fingerhole thing), the slide trombone, and the corno da caccia. Less exceptional are the dulcimers, timpani, and some other drums, where a stick intervenes between our fingers and our instruments.

Also intervening are the mechanisms of all our keyboard instruments, with the one exception of the clavichord. With that instrument our finger is on one end of a seesaw and the tangent touching the string is on the other end, and we can feel the direct control of finger to string. With all the other keyboards, somehow our fingers have to force the mechanisms to obey our control. How do we do that? I suspect that we do not know, but somehow, by various ways and means, some people can do it better than others. We know that harpsichords and other members of the jack family have terraced dynamics, but within those limits there are some players who can induce phrasings, subtle crescendos and diminuendos, that other players cannot. Hammer keyboards have far more complex mechanisms, growing more complex with every decade, and yet again there are some whose fingers have a magic touch that can travel right through all the complexities, whereas there are others who, while they can astound us with their dexterity, yet seem to do no more than hit the thing. Organs are even more difficult in these respects. With a tracker action there is at least some contact, but with pneumatic and electro-pneumatic it must sometimes feel as though one is playing with gloves on the fingers.

The ancestors of our string keyboards, the psalteries, were often played directly with the fingers or fingernails, but with many a pair of quill plectra were

used, and later artificial fingernails, a ring on the finger with a projection to pluck the string.

All these instruments are sounded by our fingers choosing which notes will sound, but the pitch, the tuning of those notes, is pre-determined. Exceptions are those such as the Japanese koto, for while the basic pitches are preset, pressure on the string behind the bridge will vary the pitch.

With fingerboard instruments, our fingers will both select the notes on a string and determine their tuning. With many of these instruments today, in our culture, our fingers will fuzz the pitch – only in our early music orchestras will our fingers produce a clear pitch. It is only since the latter part of the nineteenth century that we have desired this haze of pitch; before that time, what had once been called the close shake was used only as an ornament. This contrasts with much of the rest of the world where a clear pitch is almost always desired. Even on the sitar, where the string is often pulled by the finger to slide to a pitch as far as a fourth or fifth away from the nominal note, still a clear pitch is demanded as a result of that pull. It seems that it is only we, and our imitators playing our music, who desire to obscure the specific pitch in this way. I often wonder why – is it to imitate our modern singing style where pitch is so often disguised? Or is it, as my leader once told me when I asked if a piece could be played without vibrato, because the players would otherwise be out of tune with each other?

Our fingers can do much more than fuzz the pitch. With those instruments that are plucked, the ways of plucking are varied and many. In our Middle Ages, a plectrum was often used, but gradually it was found that more expressiveness was beneficial to music and so the plectrum was abandoned and the bare fingers were used instead. Only on those that were strung with steel did plectra survive as they still do, or exceptionally there were small keyboards attached to save the delicate ladies' fingertips and nails. So also are the many ways in which our fingers stop the strings to limit their sounding length. We prefer to press the strings firmly to a fingerboard save when we wish to elicit harmonic overtones – then a finger will touch the string delicately to make the string vibrate into discrete parts. One instrument, the tromba marina, depends entirely on this technique, and the Chinese qin uses it much of the time, whereas otherwise in

our culture it is used only as a special effect. Other people, though, may stop a string from the side or from above, touching it firmly enough even without a fingerboard to define its pitch by its length rather than as overtones.

What the fingers do on our modern woodwind instruments is to express wondrous dexterity, but they cannot do as much as they could in earlier days to affect tone and tuning. They can still cross finger and so on, but they cannot so easily half-hole or shade a hole in the ways that are still done in the wider world, and also still by our recorder players and those in our early music groups. In that wider world, where equality of temperament does not exist, subtle tunings and the microtones of exotic scales are the norm, as indeed they are in our own other unequal temperaments.

Similarly on our valved brass instruments, the fingers can define a pitch by operating a valve but can do little to affect it, save for operating a trigger to lengthen a valve tuning-slide. Special effects can be obtained by only partly depressing a valve, but this is not any normal part of musical performance. An extra valve can also be used for echo effects but this depends on the presence of a built-in attachment. As with our modern woodwind and our natural brass, any real tuning and tonal differences are achieved by breath and lip control.

The natural brass, trumpets, bugles, and horns, are held by the whole hand, as are the body and slide of the trombone. Only on the hand-horn and the stopftrompete, and also the modern valve horn where the hand remains in the bell, can the fingers, or mostly the hand, make any difference to pitch and tone.

As we said initially, with our percussion instruments and dulcimers, a stick, or more often a pair of sticks, intervenes, but much of the tone quality of the sound depends on the way the fingers control those beaters. A hard grip produces a harsh, even a dead sound, a loose grip produces a flaccid sound, a well-controlled grip produces a good sound. Even the way in which the fingers grip the leather straps of a pair of cymbals can make a difference of tone quality and strength of sound. But no skill with beaters can compete with the way in which the fingers can produce subtleties of tone and even of pitch on the drums deriving from other cultures. No writing for timpani can ever compare with what a skilled player can do with tabla and baya or with dombek and darrabuka. Most

frame drums, too, including our own tambourines, depend on the fingers not only to produce the sound but also to define its quality.

Just think how impoverished our music would be if we had paws instead of the flexibility, skills, and control of our fingers.