Re: Math and music

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From: David Webber (*dave_at_musical.demon.co.uk*)
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"Jon Slaughter" <Jon_Slaughter@Hotmail.com> wrote in message
news:10mrf125rgb2pc8@corp.supernews.com...

> This is a quite from
> http://geodyne.com/schillinger/index.html#top:
>
> "Music has remained in the dark, without geometric form, because
> we still refer to C as 1 instead of zero. Geometry begins with 0,
> not 1. With C as 0, coherent visual form ensues. The twelve notes
> in our primary selective system are used because 12 is the most
> versatile number; 12 is the smallest number with the most
> divisors."
>
> Now, as an "advanced" mathematician, does that make sense to you?
> If it does, then your not as advanced as you think.

Indeed, it is a load of cobblers (as we say over here). The fact
that we use 12 semitones has nothing whatever to do with the fact
that 12 is an abundant number (ie one whose divisors sum to more
than itself) and everything to do with the intervals found by
generating pitches at intervals of a 5th. OTOH intervals woud be
much simpler if we labelled a unison 0 instead of 1, but that has
little to do with "geometry".

> I've been studying music theory for about 5 years now and math for
> about 10 and, while music can be setup in a very mathematical
> way(such as using musical set theory, etc...), they all only seem
> to confuse the subject...

Mathematics is a convenient framework in which to give a
description of a number of aspects of music. Nothing more.

> What I have "discovered" is that music theory is no theory at
> all(not in the mathematical/physics sense)... but just a set of so
> called common guidelines

If you want an analogy of music theory in science then the closest

is probably taxonomy in biology: music theoory provides a framework to describe what is there − not a set of prescriptive rules, or even guidelines, and it doesn't make predictions like (say) theoretical physics.

>...
> So, I think, if you just dive into music theory you might become
> frustrated

Well that is the outcome of many fields of human endeavour. It doesn't mean one doesn't learn something useful along the way.

> Anyways, There are many music theory books, but you might want to
> pick up something to teach you how to play an instrument such as
> piano

To do that you need (a) a piano (b) some appropriate music and (c) a teacher. A book would come a very poor fourth.

> (I think you need to learn piano first)...

How odd!

> and almost all books, atleast ones for adults, have basic music
> theory in it...

But no mathematics.

> Then, by the time you can play some songs and you know your
> chords, you can dive into a harmony book and start playing around
> with harmonic concepts such as modulation... which you might have
> already discovered while learning the piano... and just didn't
> know what you were doing and why it sounded good/bad.

It certainly helps to be able to hear the effect of different harmonies, but for that it is surely not necessary to become a pianist! If it were, then there would be no jazz musicians on any instrument who were not also accomplished pianists!

Dave

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Author MOZART the music processor for Windows −
http://www.mozart.co.uk
For discussion/support see
http://www.mozart.co.uk/mzusers/mailinglist.htm