

Typology and Classification**Jeremy Montagu**

In my own collection I have well over two thousand musical instruments. They come from all over the world; they are all sorts of different types; they come from all periods, from reproductions of Stone Age, through genuine pre-Columbian American, and other archaeological areas, through mediaeval, renaissance, and baroque European, to the present day. How do I keep them? That's one problem. Some people have wall paper, we have instruments and books (but we're running out of wall to put either on). How do I catalogue them? That is where typology and classification come in.

One could catalogue them at random, and indeed my ledger catalogues are at random because they are in approximately chronological order; things got listed in the books when I got them, or not too long afterwards. At least, that was true from 1967 onwards; in that year I was asked to mount an exhibition and in order to do so I had to discover just what I had. So the first two and a half volumes date from that year, and they are wholly random, compiled by walking round the house and listing things. Thereafter, listings are more or less as I acquired them. Each instrument has a number, the book it's in (I'm now on volume twelve) as a roman number, and the page that it's on, as an arabic number. Sometimes there was a batch of similar instruments, or in the early days I was plain stupid (one learns as one goes along), and there may be III 156 a, and b, and c, and so on. So that is always the main record of what I have, and it's duplicated as a pocket one-line checklist, and it is also duplicated as a list for insurance with values (that's a separate one because one wants to keep it confidential from visiting scholars who may use the main catalogue or this small checklist). But you can't use any of them to find a certain instrument. Supposing that I want to look up an Indian conch. Now I can remember that I've got three small ones and two big ones of this particular species of conch, *Turbinella pyrum* (Linnaeus) ; I can remember that I bought the two big ones together from Friedlein in East London, and that I bought two of the small ones, one and another very slightly bigger (they sound a semitone apart), together in an Indian shop in North London a few years later, and I can remember that I was given the other small one, which is much older and a well-used specimen, by John Waechter, a London University archaeology professor who had collected it in India many years ago. BUT I have no idea what their catalogue numbers are, and therefore I also have no idea in which volume of my

catalogue I can find them if I want to look up any details about them. So what one has to do is to group like instruments together in some logical arrangement so as to be able to find them. And I emphasise that one has to group them together. The essence of classification is to start with the objects, spread them out all over the floor, perhaps, and then to say, “this is like that”, “that is like those”, so that they group together in little piles, and then to say “this pile is like that pile”, and so on, so that the piles are in groups of piles, and then put together the groups of piles to make a mass of groups, and so on until everything is sorted out. So, what is a logical arrangement? There are all sorts of possible ways, so let’s stick with our Indian conch example for the moment. Now I have conches from all over the world, though not as yet from Catalunya, nor from anywhere else in Spain. Do we arrange them geographically? All the Indian instruments together; all the Oceanic; all the American; all the European? Do we have all the Indian instruments, not just conches but instruments of all sorts, in alphabetical order, c for chank, s for sarangi and sarinda and sitar, and so on? Do we arrange them by size? 0-15 cm, 15-30, and so on? Or by colour? The green ones in one pile, the brown ones in another? I’ve got conches from North America, the Caribbean, Central America, and South America. Do we put them all together, or so we separate them? What do we do about the conches imitated in pottery from Mexico and Peru? Do we put them with the other conches or with the other pre-Columbian pottery instruments? What about the European ones? Some of them were used as foghorns and some were used as musical instruments. Do we put them together, or do we put the foghorn conches with the other foghorns, and the musical ones separately? I’ve just had a different idea. What about putting them together by species, all the *charonia tritonis* together, whether they are Oceanic, Red Sea or Japanese; all the *bursa bubo* together, whether they are Fijian or East African, and so on?

We could do all these things. They would all be useful in different respects, but none of them would relate to their use as musical instruments. It could be very useful to have all my East African instruments together, but then I would lose sight of the fact that *bursa bubo* is used both in East Africa and Fiji. I could put all the foghorns together, but then what would I do with the one that was used to call the farm hands in for dinner in Iowa? And I would fail to recognise that this same species of conch is used as a foghorn in Britain and for dancing in the Caribbean. The same applies to any geographical arrangement; one would fail to see that the same instrument is used by different peoples in different ways.

There is in fact only one useful system, and that is by typology. All the instruments you

hit with skins in one group; all those that you hit without skins in another (I am simplifying very considerably), all those with strings in a third; all those that you blow in a fourth; all those that work by electricity in a fifth. The system of this type that we use was developed by Erich Moritz von Hornbostel and Curt Sachs and was first published in the *Zeitschrift für Ethnologie* in 1914. It has its faults; it was only *Ein Versuch*, a sketch, but it is still the best system that we have, and it is the only one that is recognised internationally. It has the great advantage that it is a numerical system, which means that it is free of linguistic bias and fairly free of any cultural bias. Obviously each type of instrument has a name in the original German text, and a name translated into English in the English version, which was published in *Galpin Society Journal* XIV, 1960, and if there is a Spanish or Catalan translation, there will be a Spanish name there [there are now both, by Maria-Antònia Juan i Nebot]. If you do not understand the name that I use, the number that we both use is the same, and we can each call the instrument what we like. If it were not that names are easy to remember, whereas for most of us numbers are difficult, by far the most sensible thing to do would be to forget the names and to use the numbers. Instead of talking about conches, we should talk about 423.11.

So, to go back to the conch. The wind instruments, the instruments we blow, the aerophones to use the Hornbostel-Sachs technical term, which comes from the Greek, *aero-*, wind or air, and *-phonos*, sound, just as *telephone* is also Greek, *-phone* again for sound, and *tele-*, far or distant. These are group 4. Within group 4, the first lot, 41, is a whole group of instruments which are difficult to classify and which are kept separate from the others. Things like the bull-roarer; do you have these in Catalunya? This is difficult to classify with the wind instruments because the air is outside it instead of inside. Equally, there are some types of reed without an instrument such as the ribbon reeds. These are all in group 41 with, of course, different third and even fourth or fifth figures. Next come 42, the wind instruments proper, and within this great group, the different types, 421 for the flutes, 422 for the reed instruments, and 423 the trumpet type instruments. Within each of these groups there are subdivisions, of course, for example 422.1 for the reed instruments with a double reed, like the oboe and the *gralla*, 422.2 for those with a single reed like the clarinet and the saxophone, and 422.3 for instruments with a free reed like that of a mouthorgan. Within 423, the trumpets and horns, we have 423.1 for the natural instruments without fingerholes or valves or slides, as against 423.2 for the chromatic instruments, with 423.21 for those with fingerholes, the cornett and serpent, 423.22 for those with slides, the trombone, and 423.23 for those with

valves, most of the rest of our modern brass instruments.

Among the natural trumpets come the conches, 423.11, which are divided between 423.111 for those that are end-blown, like the Indian ones, and 423.112 for those which are side blown, such as the Oceanic *Charonia tritonis*. As I said, the Hornbostel-Sachs System is a sketch, and perhaps they did not even know of the Fijian end-blown conch which has a fingerhole and therefore perhaps belongs with chromatic instruments, instead of with the other conches. So there are complications and there is still much work to be done, perhaps especially in this fourth section, so that it may have been a bad group to start with. The whole fourth section is full of questions and arguments, and it is the most difficult of all four sections. So let's change and look, instead, at the non-skin percussion. These are group 1, the idiophones, idio- which is Greek for self because they are rigid enough that they make a sound themselves, without the need of skins or strings or anything else to help, and combined with -phone again for sound.

Here we go by how they are sounded. To start with by whether they are struck. The idiophones are group 1; those that are struck (we shall meet others that are plucked or rubbed or scraped) are 11, those that are struck by a definite motion which can produce individual sounds are 111, separating them from those which are shaken, for instance, to produce clusters of sounds, which are 112. Then within 111 it depends on whether two equally sounding things are struck together such the cymbals, which is **concussion**, or whether one sounding thing is struck by something else which doesn't sound, which is **percussion**.

And within these by shape, so that we separate sticks are struck together, from vessels, anything that is hollow, whether made of wood like castanuelas or made of metal like cymbals. All the instruments that are struck together so that both of them sound are 111.1. Sticks are 111.11; vessels are 111.14 (there are other shapes), and within 111.14, castanets and castanuelas are 111.141, whereas cymbals, which are a different shape, are 111.142.

Then, with 111.2, we go on to the **percussion**, the instruments which sound but which are struck with something else, or against something else, that does not sound. Here again we start with sticks, 111.21, which can be used individually – they don't have to be straight; you can bend a stick to make a triangle. Or you can make a set of sticks, which we'd call a xylophone, each stick producing a different pitch. You can have a **percussion** vessel such as a slit drum, and you can divide the vessels according to whether they vibrate on the rim, which are called bells, 111.242 (it's still a bell whether it's hanging up or whether it's the other way

up like a tea-cup that you hit), or whether they vibrate in the centre, which is called a gong and is 111.241.

If instead of hitting the things, we shake them, we go into 112.1, the rattles, which, as I said earlier, produce clusters of sounds instead of individual sounds, and there is a vast number of different types of rattles, all of them with different numbers according to their type and their shape, those that rattle against each other (this is **concussion** again), those that rattle against something that they are tied to (this is **percussion** again), those that slide to and fro, and those, the biggest group of all, the vessel rattles, where something inside an object rattles around against it. Rattles are such an obvious idea, for often they begin with simply a dried fruit or gourd with its seeds rattling around, and there are so many different types that they are quite difficult to sort out. As I said, the vessel rattles are the biggest group of all and because the System is 'A Sketch' they left it to future generations, to us in other words, to sort out all the different types of vessels into the appropriate subdivisions. One obvious division is whether they are used singly, or whether, like the maracas of Latin-American dance music, they are used in pairs.

Alternatively, instead of shaking, we can scrape, 112.2.

Or we can forget about hitting, for shaking is a form of hitting, and so is scraping, where you hit, hit, hit, like a series of tiny steps, and we can leave all the 11 group. We can pluck, 12, like we do with the reed of the verimbao, which is a reed in a frame 121.2, or we can pluck a series of tongues laid out like a comb, 122, each tuned to a different pitch as the sansa, or of course the ordinary musical box. Or, 13, we can rub.

And this is how classification is done. It is a complex subject, far more than we can cover in one short session. To put it briefly, ideally, as I said at the beginning, you make a huge pile of all the instruments you know, and then you gradually separate them into piles, putting like with like, all the blown in one pile, all the hit in another, all those with strings in another, and then you go at those piles, looking to see what belongs with what, all the flutes in a smaller pile, all the trumpets in another, and then splitting them into smaller piles and smaller and smaller until at last you have a manageable number and, to go back to where we began this exercise, you know where to find your conch, and within the conch pile where to find the end-blown *turbinella pyrum* or the Indian conch, and then, since I only have five of these, to find one of the ones that I bought in that Indian shop in North London.

A paper given to students, probably in Barcelona in 2005

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