

The Virtues and Vices of Plastic Bassoons

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The use of plastic for woodwind instruments suffers from an unjustified stigma. Most musicians look upon plastic as inferior to wood. In many cases plastic instruments are inferior but this is not necessarily the fault of the plastic. In this article I would like to discuss the potential advantages of a well made plastic bassoon for school use.

For the purpose of making bassoons, wood and plastic each have both advantages and disadvantages. Either can be used for making instruments for musicians at every level from beginner to performing artist. It is in the area of institutional usage that plastic instruments particularly excel.

Although wood remains the preferred material for bassoons in professional use plastic has not been ignored. Plastic bassoons have been used by bassoonists in orchestras at every level right up to world class orchestras. In some instances a plastic bassoon is kept just to use for outdoor performances. In other instances a plastic bassoon may be the primary instrument of the performer. One constant fact is always present: No professional musician will use an instrument unless it is capable of performing up to his standards.

Undoubtedly, the most universally accepted reason to use plastic for musical instruments is durability. Plastic instruments are capable of tolerating levels of abuse and neglect that would seriously damage a wooden instrument.

Schools are a hazardous environment for musical instruments. I'm not trying to be facetious with this description. School owned instruments suffer for a variety of reasons ranging from inadequate repair budgets to simple ignorance of how to take care of a musical instrument.

Plastic bassoons are much more capable of tolerating neglect than are wood bassoons. It is really quite difficult to damage the plastic body. Broken joints are exceedingly rare. It will never suffer from rot. Plastic doesn't care if the environment it is in is excessively dry or wet. It can be stored away for extended periods and will be ready and willing to play when it is taken out. Common bad habits such as failure to swab a bassoon after use will not hurt a plastic bassoon.

Repair technicians who specialize in bassoons regularly see a variety of problems in wood bassoons that do not occur in plastic bassoons. Regular maintenance of the body is necessary to control air leakage through the wood. Tone hole facings become rough

making it impossible for pads to seal against them. Lack of proper daily care can lead to dry rot problems that require major repairs. Inadequate maintenance of the tenons lead to damage requiring their replacement. Even when everything is cared for properly the finish will wear and the instrument must be refinished periodically.

Obtaining good repair work is a problem on all bassoons and the use of plastic bassoons reduces this problem. Unless a repair technician specializes in bassoons he may see very few of them in a year's time and he may not be as competent on them as he would be on flutes, clarinets and saxophones. Bassoons are the only woodwinds that are made of maple and maple requires different repair techniques than everything else a band instrument repair technician works on.

Instrument makers have a wide variety of plastics to select from when they decide to make a plastic bassoon. Some plastics can make a good bassoon but may be difficult to work with. Other plastics have excellent manufacturing qualities but should never be used for making musical instruments. A plastic which is fine for clarinets might be wrong for a bassoon. An instrument maker must always remember that his object is to make a musical instrument. All other factors used in considering which plastic to use must be secondary to that primary objective.

All of the plastics which are usable for making bassoons are heavier than maple. This may be the only real problem with plastic bassoons. Even polypropylene, which is the most successful plastic for bassoons, is still slightly heavier than maple. Some other plastics that have been used will produce bassoons that are heavy enough to make good boat anchors.

A less known problem that occasionally causes difficulties is the thermal expansion factor of plastic. Plastic will expand and contract with the rise and fall of its temperature. Mechanisms which are in excellent adjustment at room temperature may bind up and not work when the body shrinks at cooler temperatures such as might be encountered at an outdoor performance.

Obviously, I believe that plastic bassoons are a good choice for schools. Indeed, I strongly feel that in most cases plastic bassoons are preferable for institutional use. But if plastic is so good why are wood bassoons still made? There are a lot of reasons,

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some of them very real and some of them rather vague.

As a bassoon maker, I can do a lot of things with wood that are not possible with plastic. Care in the choice of maple and the way in which it is aged and handled can affect the tone and playing characteristics of a bassoon. These differences are subtleties which are important to a fine player. It is very unusual to find a young bassoonist, even at the college level, that is sensitive enough to perceive these differences. An experienced professional bassoonist, however, is very aware of them and knows how to exploit these subtleties to his advantage. In addition, there are such intangible factors as "wood is friendlier." Or, "plastic isn't as pretty." And, of course, "how can a plastic bassoon be as good as a wooden bassoon which costs thousands of dollars more."

Bassoons are capable of lasting a long time. It is not unusual to see instruments in regular daily professional use that were made half to three-quarters of a century ago. While it is unusual for a school bassoon to last that long it is not unknown. Care in the choice of a bassoon, whether wood or plastic, and in its proper maintenance will make a long life possible. The advantages of a plastic bassoon will be in lower initial investment and in easier and less expensive maintenance.

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