

sections of tubing (see photo A). Unfortunately all these mechanical solutions vastly increased the weight of the instrument. At last, in about 1826, a German horn player named Stölzel, fed up with lugging all this plumbing around (see photo B), invented the first practical valve. In 1830, a Viennese brass instrument maker came up with a superior double-piston 'Wiener-ventil', closely followed, again in Vienna, by Riedl's invention of a rotary valve. Finally, in 1835, a Berlin maker produced a single-piston valve, which was refined into its present-day form by a Frenchman, Perinet, in 1839. The Stölzel valve was soon dropped from the horn, but was still found on cornets (the 'système belge') right up to the First World War. The Stölzel valve is actually a combination of the Wiener and Perinet valves. The other three valve inventions, remarkably all made within less than ten years of each other, have survived almost



Examples of (left) Riedl rotary valve, (centre) Perinet valve, and (right) Wiener valve

unchanged to the present day, apart from a few refinements in linkages and advances in metallurgy.

A brass instrument valve is a mechanism for switching the airflow into an additional length of tubing, thereby lowering the pitch of the harmonic series. The Wiener, Riedl and Perinet valves embody the three fundamentally different methods of switching the airflow – through, around and across the valve mechanism respectively, as shown in the two diagrams. Examples of each valve on horns from the author's collection are shown above. These three valve systems present different responses to the player, exhibit contrasting sound qualities, and offer a variety of technical challenges and opportunities for manufacturers. The Wiener valve is the most free-blowing, particularly in the 'off' position when the air flows through with no bends or restrictions. Its operation slightly compresses air in the tubing, slowing the action somewhat and producing a charming 'plop' like an organ 'chiff'. For this reason, the instrument is

affectionately referred to as a 'pumpen-horn' in Vienna where they are in regular use. The Perinet piston, when well-lubricated, has a fast, slick action, but the player also has a high degree of 'feel' when the valve is operated. These characteristics, still much favoured by trumpeters, are today shunned by most horn players, and only a few French manufacturers still make Perinet-valved horns. The ubiquitous rotary valve is much more compact and robust, and can easily be extended into a 'double-decker' format, as found in the most popular type of 'double horns' made today. Even 'triple-decker' rotary-valve horns exist. However, this valve lacks the finesse of the Perinet and Wiener valves.

The horn repertoire is full of marvellous examples of music written by composers who took advantage of the characteristics peculiar to each type of valve. Sadly, most of today's horn players have never played anything other than a rotary-valve instrument, which, like the grey-squirrel, has all but wiped out its more colourful and subtle rivals.

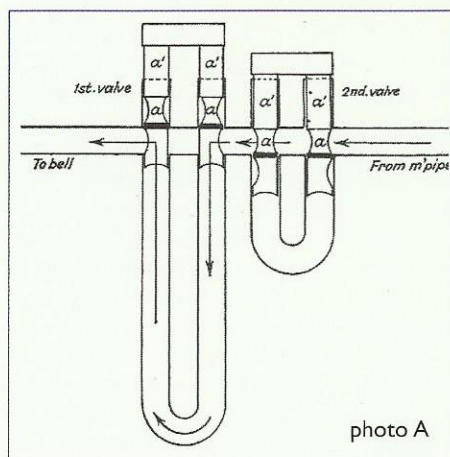
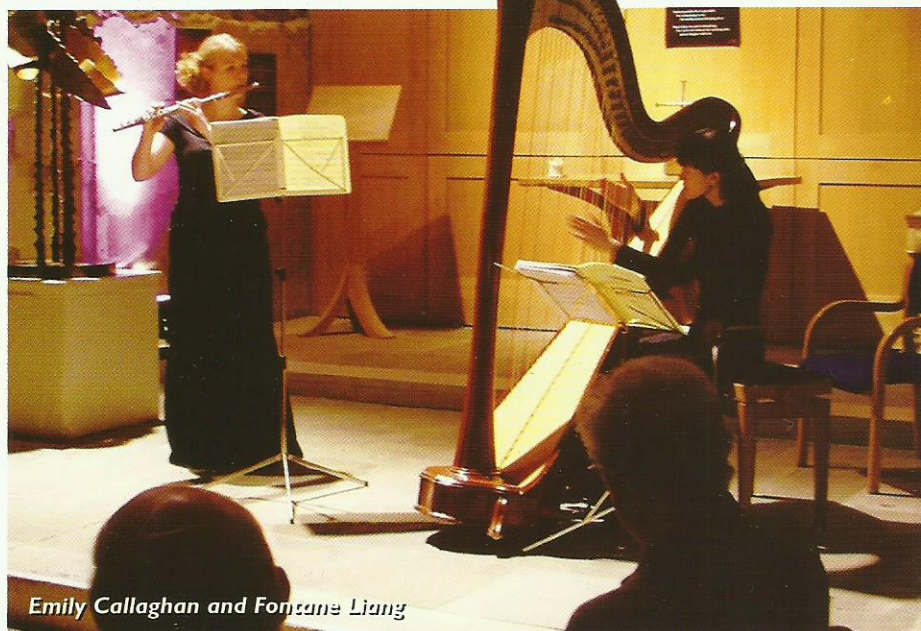
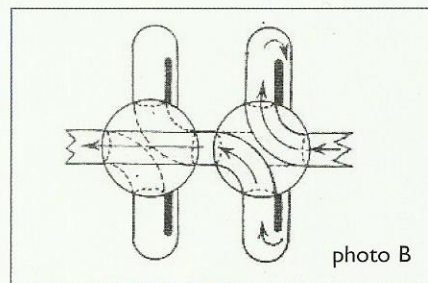


photo A



Emily Callaghan and Fontane Liang

Rumba, a flamenco singer with Indian flutes, a Senegalese kora player and sacred ritualistic music of the African diaspora.

Our evening continued with a recital of music of a rather more conventional nature, with Emily Callaghan (flute) and Fontane Liang (harp). Both multiple prize winners and studying at the Guildhall School of Music & Drama, they utterly charmed us in music by Donizetti, Andrés, Mozart, Chopin - the warm acoustic and scale of the room being perfect for the flute and harp duo. The recital closed with *Fragments* by Adrian Horsewood (b. 1983) which had been specially commissioned by Livery Club President, Eugenie Maxwell, for our visit. A gentle *Siciliano*, the piece was inspired by Helen Whittaker's window and by the space. It provided a poignant and delightful conclusion to a very special evening. Contributed by Liveryman Adrian Mumford