

All you needed to know about Qvevri but were afraid to ask

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An interview with John Wurdeman of [Pheasant's Tears](#)



John giving a masterclass on Georgian wines at the Real Wine Fair 2012

Kvevri? Qvevri? Which is it?

We are spelling it “Qvevri”. There was much discussion on this; a few German importers prefer the Kv rather than Qv but I have had the Travel channel CNN, BBC and Jancis Robinson’s upcoming books on varietals and wine atlas all use the Qv spelling which the Georgian wine producers are using, so Qvevri.

The word “Qvevri” – does it literally mean amphora or does it derive from something else?

No, it doesn’t mean amphora. Amphorae were often used for transportation, or storage above ground – they often had handles and were not permanent. Qvevri is a Georgian vessel dating back over 8,000 years predating Greco-Roman traditions of winemaking. A qvevri was totally buried in the ground and not used for transportation, it was used for fermentation and storage of wine, and, being totally immersed in the earth gave it naturally stable temperatures, advantageous for both fermentation and storage. It is a vessel unique to Georgia (oldest examples date back 8,000 years) although similar interpretations are found throughout the ancient Near East and more recently, (2,000-3,000 years ago) in Italy, Spain and Portugal. The vessels used in western Europe culture are normally above ground or partially buried. Qvevri usually have a beeswax lining inside and a lime encasement outside. The few European producers that have borrowed this technology from Georgia – such as Josko Gravner – still call the vessel “Amphora” (or Anfor) on their labels, which bothers the Georgians. They feel it sounds like a Roman or Greek cultural attribute whereas this is much older and indeed derives from Georgia. The Friuli/Slovenian producers, including Gravner, bought qvevri in Georgia and learned their open-fermentation, extended skin maceration techniques here, so we hope over time to convince them to call the vessels qvevri rather than amphora!

Where are the qvevri made? And by whom? Is this a widely spread artisan skill in Georgia?

There are about five good qvevri producers, but they are all living in poverty and the craft is in danger of dying out. We are currently trying to solicit funding to help build a school for a new generation of qvevri craftsman to be taught the skills. They are mostly in Vardisubani village in Kakheti and Shrosha in Imeriti region. Unesco is considering adding the qvevri method to their world heritage list. If this happens it will be easier to rally support for the protection of the vessel and its name.



What are they made of exactly? Is there a special glaze?

It is pure terra cotta, baked red clay, built-coil method, but the quality of the clay and water used is as important as firing techniques. The vessels are usually between 100 and 4,000 litres in volume although some have been discovered that are between 8-10,000 litres. Small qvevri are good for fermentation, bigger better for storage. No glaze is used.

What is the customary winemaking process once the grapes are brought to the winery?

Slightly crushed grapes, stems and all, goes into the qvevri, whereupon alcoholic fermentation begins naturally in the next three days and continues for 2-4 weeks at which point the cap falls. Punch-down happens usually about twice a day during alcoholic fermentation; once the cap falls we remove the reds from the skins and stems, and leave the whites on the skins and stems, place a stone lid over the top which continues to allow small amounts of oxygen in. Malolactic usually starts spontaneously quite soon

afterwards, say in the next month – in 5 vintages we have never had it not happen. In spring, when the earth starts to warm up, we usually open the fermentation qvevri and move the wine into freshly-cleaned qvevri for storage until bottling – or bottle right away.

How are the qvevri buried in the ground? And where? Are they sealed? If so – with what?

The qvevri are buried in deep holes with earth and sand packed in tightly on all sides. Ideally, they are in a building in the vineyard, or nearby. They are sealed inside with hot beeswax and the lid of the qvevri – after malolactic – is sealed with wet clay coiled around the top and then a heavy stone placed over it.

How does the vigneron know when to unearth them?

The qvevri themselves are permanent unless moved for reinstallation, while the wine is usually racked when the temperature in the earth starts to warm up, at which time it can be bottled or moved into a newly-cleaned qvevri.



How are the qvevri cleaned?

There are many different means such as used cherry-bark scrubbers as well as various other “old-school” tools, but if you put powdered lime rock with clean water it starts to heat up to a high temperature searing the inside of the qvevri and cleaning any small amount of bacteria that might be stuck in the pores. After this we pump in fresh water and pump out the old water until pristine.

How many times are the qvevri used?

For many centuries – our oldest ones date back to mid 19th century, for example.

How would you say that the process of fermenting and ageing in qvevri affects the wine – compared to stainless steel or wood, for example?

Qvevri are porous and so closer in style to old barrels than stainless steel. The clay has pores and that takes us to the earth, but the earth is porous as well. Despite that, the wine in qvevri is subject to relatively minimal amounts of oxygen if well sealed (although they do receive some). In addition to breathing they are surrounded by a constant temperature on all sides allowing for slow gradual fermentation and relatively stable storage conditions. The technique of prolonged skin contact in the case of the whites

makes the most obvious difference in terms of a strongly amber-coloured result and adds the tannins, polyphenols and a particular earthy body to the wines.

les caves de pyrene

What proportion of growers (very roughly) are still using qvevri in Georgia?

Almost all families have a house in the country where there are qvevri, but due to intense labour involved in cleaning and maintaining them, many have resorted to making their home brew in plastic barrels or stainless steel. “Professionally” about 20 producers utilise qvevri, while maybe some 1 million families have them in their village homes of which probably 100,000 still use them.

What else should we know about qvevri winemaking?

That this tradition only works if you have very healthy grapes and a good strong yeast population. If you intervene too much in the vineyard or cellar you will likely get stuck fermentation or other problems, but if the grapes are in great condition and you don’t let them ripen “too much” – pick, say, at between 22 and 24 brix – then nature does the rest for you.

And our thoughts....

So this is more than the slavish adherence to tradition, but the preservation of an extraordinary craft.

The qvevri is not just for storing wine, but is also a part of the technological process. The fact that wine doesn’t get excessively influenced by seeds, skins and stems (chacha in Georgian) while stored is due to the inverse conical shape of the vessel. The seeds sink first, and are then covered by chacha (until it also sinks after fermentation is complete). As a result, we get wine with character and good ageing potential, rich in tannins. White wines made in such a way have an amber colour and are slightly touched with the flavour of almond, walnut and dried apple. Moreover, the long maceration in contact with grape seeds confers nourishing anthocyanins and useful properties.

While some may view this radical “natural” winemaking, the Georgians know winemaking in qvevri simply the way that wine has been made since time began. If it ain’t broke...

The inside surface of qvevri as has been mentioned is covered with a thin layer of beeswax – essential for hygiene. A mixture of crushed limestone and water or hot water and ash or even just rigorous scrubbing are all effective methods of cleaning and sanitizing which do not involve the use of anything noxious. *There is no contact with fining agents at any stage of the process and only a very small amount of sulphites are added if necessary.* Typically long extraction of the tannins ensures that the wine remains stable

Georgians call leaving the wine on the skins ‘leaving it with the mother’, and particularly, when the grapes are organically and biodynamically grown, she does an amazing job. She gives nutrients, protects, adds textural richness and layers of complexity simply not achievable without such close synergy between liquid and solid. The qvevri not only holds the wine, but animates it.