There were many kinds of mills — that is, mills, with different types of mechanics used in them. Windmills had varying number of vanes (which are called “sails”) — they were four-, six-, eight-, ten- or even twelve-sail mills; one or two tiered mills, post mills, mills with log and framework structures, etc.

As far as watermills are concerned, a lot depended on what kind of the water source provided water for turning the mills’ wheels was used. Also, a lot depended on what use a mill was put to — in addition to grinding grain, windmills have also provided energy to sawmills, paper mills, hammermills, and windpumps. Watermills were used in lumber or textile production, or metal shaping, just to name but a few things mills could be used in (these days, a watermill that generates electricity is usually called a hydroelectric plant).

Besides being used for technical purposes, the mills of old were the places where people who, say, brought grain to be grounded, could socialize, exchange the latest news, gossip, stories and views. Spooky stories about millers who were in cahoots with “the forces of evil” were particularly popular. A great many folk songs, catchphrases, sayings and superstitions are connected with mills and millers.

In the history of Ukraine, which used to be called “the breadbasket of Europe”, mills once played a significant economic and social role. Surprisingly enough, no monographs or scholarly papers devoted to old mills have been published in Ukraine. Luckily, an international conference devoted to old mills — the first ever such conference in Ukraine — which was held in the city of Cherkasy in October 2009, may change the situation for the better. I was invited to attend the event in the capacity of a person knowledgeable in wooden architecture and ways of its preservation.

**Molinology**

Molinology is a branch of science which deals with description and study of mills and other mechanical devices that use the kinetic energy of moving water or wind as a power for driving, grinding, pumping, sawing, pressing and other machines. More particularly, molinology aims at finding out more about those traditional mills which have been condemned to obsolescence by modern technological and economic trends, but which constitute a worthy chapter in the History of Technology and are a part of the History of Civilization.

Though the subject of the conference seemed to be quite unusual and rather specialized, about fifty historians and other scholars and scientists from various parts of Ukraine working in different fields, came to attend the conference, plus many teachers, students and culture enthusiasts from Cherkasy itself and from Cherkasy Oblast. Among them was Olena KRUSHYNSKA, an enthusiast of wooden architecture, who was invited to attend the conference in the capacity of a person knowledgeable in wooden architecture and ways of its preservation.

**New Life for Old Mills**

In the not so distant past, windmills and watermills used to be omnipresent features of the Ukrainian countryside. These days they still can be seen, though, decaying in some villages, or in a better condition in the open-air museums — and in old photographs.

Olena KRUSHYNSKA, an enthusiast of wooden architecture, probes into the fate of old mills in Ukraine.
Architecture, landmarks, a champion of wooden in the Polisky Preserve, The restored watermill Olena Krushynska, Zhytomyr Oblast.

...in the watermill.

Photo by M. GUDZEVATA

The TIMS members proved to be the most active and most knowledgeable among those who joined those who traveled to the countryside. They wanted to explore everything that could be seen and touched inside the old mills, squeezing into nooks and crannies, and reaching the places hard to reach. They provided interesting details of the mills’ construction peculiarities, and explained intricacies of the mills’ mechanics.

Well, their profuse knowledge wasn’t surprising — it was Germany and the Netherlands where windmills were widely and extensively used for centuries — it is from those countries that "the mill ideas" spread far and wide, Ukraine included.

In the village of Hryshchyntsi, we were shown a windmill the design for which had been developed by two peasants from the Land of Cherkashtytsya, father and son, named Shytsya. After the end of the Second World War, during which the economy of Ukraine had been devastated, people in the countryside sought and found means of getting the agriculture back on its feet. The Shytsya inventors designed and made a four-sail windmill which could be used for driving various mechanisms — pumps, saws, threshers, crushers, etc. The design and making of these windmills which were given the name of Vitrodvyhun (Wind Engine) D-15, were simple enough to make it possible to build them locally in the villages. Very many Vitrodvyhuns were made in Ukraine and outside its borders. The

...mills elsewhere in Ukraine were thoroughly examined and the missing parts of the mill’s mechanism were made and installed.

In 2009, TIMS had about 500 registered members from over 30 countries. The Society encourages research and promotes all aspects of molinology, including the restoration of mills. Through its Council and individual members, it works closely with national mills organizations and societies.

The conference was a very important event in the studies of old mills in Ukraine. We were exposed to new ideas and approaches; we learnt the terms which are used in molinology and now they need to be adequately translated into Ukrainian. But the main thing is that now we can make our own contributions to this field of study.

The problem of preserving and saving old mills from destruction by the implaceable time and through human negligence is the most acute one. The turbulent and catastrophic events that Ukraine lived through in the twentieth century alone — wars, revolutions, Stalin’s ‘collectivization’ of the agriculture, and neglect of the cultural heritage wiped away untold number of mills. Technical advances contributed their share of destructive potential — who needs an old dilapidated windmill? The conference discussed measures to be taken to preserve the old mills and save them from decay and disintegration. I made a report on preservation of old mills and ways of doing it. The first step to be taken is to look for and find old mills, assess their condition; the second step would be to make this search and its finds public through the media coverage to gain a wider public support. A website, Mlyny Ukrayiny (Old Mills of Ukraine, www.mills.org.ua), which has already been created by Nazar Lavrinenko, is a step in right direction. It is to serve as a center of coordinating mill-preservation efforts.

Nazar Lavrinenko has already been instrumental in saving one old mill — it was in his native village of Ivkitiv. The mill is at least a hundred years old and from a ruinous condition it was in, it was then brought to an operating stage. Thanks to a grant that had come from the Polish S. Batoriv Fund and donations from Cherkashtytsya, necessary materials were purchased and practically all the villages assembled to help with the reconstruction works. The oldest helped with advice; the most intricate problem was to restore the mill’s mechanism. Functioning old

At the unveiling of the restored windmill in the village of Ivkitiv.

Olena Krushynska, a champion of wooden architecture landmarks, in the wheel of a windmill.

The mechnism of the mill in the village of Zhytomyr.

Mazur Lavrinenko, folks to an old miller who used to work at the Vitrodvyhun 15 mill for many years.

The first day of the conference was spent in the auditoria of the university, but during the second and third days, the participants and guests discarded their

...the foreign guests were the president of the Internatio nal Molinological Society (TIMS) Willem D. van Ber gen from Germany and TIMS members Leo van der Drift and Ton Meesters from the Netherlands. A number of papers were sent in from abroad to be presen ted at the conference too.

The reports and papers dealt with a wide range of subjects which included types of mills; their mecha nics, their construction, their functioning, their impact on the economy, their development from the most pri mitive in the ancient times to the much more sophisti cated which were used at the end of the nineteenth early twentieth centuries.

Ethnographers and folklorists presented cultural aspects connected with old mills. One of the reports dealt with millers as they and their trade are reflected in the folk beliefs in black magic. The reports dealt with millers as they and their trade are reflected in the folk beliefs in black magic. The reports dealt with millers as they and their trade are reflected in the folk beliefs in black magic.

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...mills elsewhere in Ukraine were thoroughly examined and the missing parts of the mill’s mechanism were made and installed.

At the end of 2008, the first flour was grounded at the restored mill to the loud cheer of the villagers who gathered to see “the great event” of the mill’s revival. In fact, many people came to see it from the neighbor ing villages as well. It was the start of the movement, Vidnynyno (let’s Save Them Together) which is now gaining momentum across Ukraine. Old water- and windmills worthy to be preserved must survive for the future generations to be aware of one of the significant features of the Ukrainian cultural and histori cal heritage.

It is important to halt the decay and disintegration (or purposeful destruction) of the mills which will be decided to save, and such preservation will not cost too much money, provided there is a wide support for the effort. The actual restoration work will cost more but it is encouraging to think that the awareness is growing and that the work of collecting information has begun. Ukrainian villages have an opportunity of re-acquiring one of their most significant age-old features — wo oden watermills and windmills!