Dear TIMS Members and Mill Friends,

In this 14th issue of E-News you will find many news items and small articles from all over the world. It is amazing to see how many news items and articles we have received and keep on receiving. Thank you to all the contributors, and please do continue giving us your inputs!!

I would like to draw your attention to some of the articles from Greece, as they relate to mills, which will be visited on the TIMS Mid-Term tour, which will take place October 5-13, this year. Every mill enthusiast can participate to our events, but one should be aware that members of TIMS are prioritized.

Another interesting article comes from Germany and describes the idea to create the “Via Molina” an European cultural mill route. I expect that many of us will be involved in the near future in the creation of this route.

Our Mill GPS Database is growing and growing. In the previous E-News 4500 mills with photo were reported. This number is now at 6678. The number of mills without photo went from 6500 to 9429.

If you have not used the database yet, you really should give it a try, as you are missing something.

In case your country is not represented well enough in our database, you should consider sending us the coordinates and pictures of the missing ones. Should you have questions on how to do this, please contact Ansgar (ansgar@carnivoren.org).

Not a member of TIMS yet? Well, it is easy to enroll, just complete the on-line application form....... as a member you will receive twice a year our magazine „International Molinology“ as well as all new issues of our “Bibliotheca Molinologica” series.

Do you want to be active inside TIMS? Just let us know by writing a short e-mail to me or Tarcis, our secretary (tims-secretary@molinology.org).

Enjoy reading the E-News!!

Willem van Bergen
e-mail: wdvb@gmx.de
NATIONAL MILL DAYS

FRANCE
1. Les Journées national des Moulins 14, 15 & 16 June
2. Journées Européennes des Moulins et du Patrimoine Meulier 18 & 19 May

NETHERLANDS
Nationale Molendag 11 May

BELGIUM
1. Vlaamse Molendag 26 May
2. West-Brabantse Molendag 24 March
3. Oost- en West-Vlaamse Molendag 6 October

GERMANY
Deutscher Mühlentag

SWITZERLAND
Schweizer Mühlentag 11 May

DENMARK
Dansk Mølledag 16 June

PORTUGAL
1. Dia dos Moinhos Abertos 6 April
2. Dia Nacional dos Moinhos 7 April

UNITED KINGDOM
National Mills Weekend 11 & 12 May
THE TIMS BOOKSHOP
Our bookshop and more… you can find it here:

For more than two years the Mills Archive in the UK has managed the TIMS Bookshop on our behalf. In that time we have raised hundreds of pounds by selling our publications not only to members, but also to the general public around the world. The bookshop (below) is on the Internet at: http://shop.millsarchivetrust.org/home.php?cat=27

THE NEXT ISSUE OF INTERNATIONAL MOLINOLOGY (IM)
Summary of the main articles in IM 86 to be published in June 2013

Reversible waterwheels for mine shaft hoisting in New Zealand by Keith Preston.
Most molinologists will be familiar with Agricola’s illustration of a reversing waterwheel in the 16th century publication De Re Metalica. This important article describes the development of shaft winding and culminates by describing the use of reversing waterwheels in the gold fields of New Zealand during the last years of the 19th century and the early years of the 20th. Details of the various installations are given with their periods of operation. The costs of using waterpower are compared with steam power and speculation is made as to the source and route of the transfer of this technology to New Zealand. This well researched article contains contemporary photographs of some of the reversing waterwheel installations in New Zealand.

Windmill Curbs: A Brief Introduction by M. J. A. Beacham
The earliest windmills were postmills where the whole body of the mill had to be turned into the wind for operation. To facilitate turning the cap some type of large bearing had to be provided between the tower and the cap. The part of this bearing attached to the mill tower is known as the curb. This article describes and illustrates the basic types of curb design used at various times and in various regions of Europe. These range from the dead curb where the cap slides on a flush surface on the tower through to live curbs where some form of roller or similar is placed between the cap and the tower. Collected data is used to form some conclusions as to the origin and distribution of the various designs.

Boat Mills in Switzerland and the Proposal for a Boat Winch using similar Technology by Daniel Vischer
This short article highlights the boat mills on the Higher Rhine and the Alpine Rhine in Switzerland including those at Eglisau and Bad Zurzach. However the main focus of the article are the proposals in 1707 by Pierre de Dromec to the city of Basle and the city of Lucerne to use boat mill technology to provide a series of winches to haul vessels upriver on the Rhine and on the River Reuss. An alternative version is also described where the waterwheel powered winch was located on the vessel itself, using fixed ropes streamed in the current, to pull itself upstream.

The 13th Century Seals of Rusteberg by Harald von Knorr
The Knorr family originated in Rusteberg in Eisfeld, Thuringia, in Germany in the 13th century. At this time seals were in common usage on documents of various types. Later members of the family moved to Curland in Latvia and eventually the meaning of the design on the family’s seals became lost. In the 19th century the design was thought to represent a cup with two square handles. However, recent research based on the examination of actual seals in museums has led to the theory that the design represents a mill rynd sat on top of a bedstone. The article examines how this misinterpretation could have occurred and presents evidence to support the new interpretation.
Variable Height Waterwheels in the Upper Valley of the River Loue, France
by Bernard Sauldubois

Moulin pendants have a well known French design of waterwheel that can be raised vertically to suit a range of water levels in their supply. This article examines a design of waterwheel to be found on the River Loue in the Doubs Department of France that is raised by swinging it upwards in an arc. The operation of this type of waterwheel, and the last two remaining mills to use them, are described together with a brief history of their inventor, M. Pouget. The waterwheels are illustrated by old postcards and recent photographs taken by the author.

E-NEWS - OLD VERSIONS / PRINTABLE VERSIONS
Click here to download Past e-newsletters AND PRINTABLE VERSIONS (without the blue band at the left).

2013 MEMBERSHIPS
Membership dues can be found here. Payments can be made to your country’s representative or the TIMS treasurer. Click here to find your representative.

TIMS PRESENTATION
Do you want to learn more about TIMS? Do you have an organization or group of interested Molinologists? Click here for our new presentation of TIMS. Please show to as many people as possible. Thanks to our TIMS president for putting this together. Help spread the news!

NEWS FROM AROUND THE WORLD

CZECH REPUBLIC

Creation of a mill site
I would like to inform molinologists via TIMS e-news about the launch of new website www.vodnimlyny.cz (the pages are only in Czech, use google translator when viewing it). The project in this electronic form was begun on 22 May 2012. It’s been on for less than one year. The goal set in this website is to map thoroughly all the mills in Bohemia, Moravia and Silesia (Czech Republic). The website works with a system similar to the one Wikipedia is based upon, i.e. anyone can add any watermill (unless it has already been added). This operation is quite simple. Everything starts by clicking on an object on the map (or place where the mill used to be in the past). Then the computer generates its address and the contributor only fills in the name of the mill, its brief description, a symbol of the mill (informing about the condition and the equipment) under which the mill is displayed on the interactive map, and finally one general up-to-date photo of the mill (each photo must have a description, author’s name
and year it was taken). Thus, the user creates a small card of the mill. Then he can fill in an extended card. This one is divided into five main sections - general information, history, architecture, technology and sources. Filling the extended card requires more experience in molinology and it also takes more time. (Click here to view exemplary cards of a mill – http://vodnimlyny.cz/mlyny/mlyn/64-cejeticky-mlyn, http://vodnimlyny.cz/mlyny/mlyn/204-janatuv-mlyny-v-buranech-horni). A lot of the data entered into the card of the mill can be used in a database search. Thus we can generate mills in particular district or river, or mills with preserved water-wheel or turbine. Search accuracy depends on thoroughness of the filling of the card. After adding the mill, administrator receives an e-mail with a link to the newly added mill. He checks the entered data (position, address, map symbol, etc.), and then publishes the mill. If he discovers a mistake or another problem, he will contact the user and ask him for correction.

To date, we have added nearly 900 mills of the expected 7000 (CR). I have written this short article in order to establish cooperation with enthusiasts who would like to expand this project to all of Europe. The IT company that created my website does not see a problem in its extension to other EU countries. The biggest problem consists in raising money and finding people who would be willing to spend two or three hours every evening adding new cards of mills on the website. The costs of the site were “only” 2,000 Euro and hundreds of hours of time (unpaid). Please contact me if you know how to get money from subsidy programs or if you would like to create a similar site for your country. The core of the whole idea is a large interactive map of water (or wind) mills in Europe. I know the Mill GPS database, but I want to create some website focused on deeper knowledge of architecture, history, technology, and especially with the rich photographic documentation of the current state of objects, with the possibility to look up particular mills on some river, sort out some which are publicly accessible, and so on. There is no need to get into more details here – this is only a first probe. Thank you for your response to this article. I look forward to future cooperation. Vivat to the old mills!

Rudolf Simek
info@vodnimlyny.cz
r.moledor@gmail.com
skype: rudolf.simek (Starosedlsky Hradek)
Unleash microhydro potential in Europe!
Water Mill cooperative hydropower projects backed by the European commission

The RESTOR Hydro project, co-financed by the European commissions’ IEE programme, will showcase small and micro-hydro potential through historic mill and weir sites in Europe. Co-ordinated by the European Small Hydropower Association (ESHA), the eleven project partners will identify up to 50,000 existing sites throughout the EU-27 and implement 24 site restorations in eight target countries (Belgium, France, Greece, Lithuania, Poland, Slovenia and Sweden). The RESTOR Hydro online Mills map and other important project deliverables such as the cooperative guidebook and financial plan will be efficient tools, publicly available for re-development authorities, cooperatives, municipalities, local hydro-power developers and interested members of the public, wishing to launch a small hydro power project using the RESTOR Hydro cooperative model, throughout Europe.

For more information: [http://www.restor-hydro.eu/](http://www.restor-hydro.eu/)
Project coordinator (ESHA): dirk.hendricks@esha.be

Project news from France

There has been a lot of enthusiasm over the RESTOR Hydro project in France, mill owners, municipalities and associations have requested information on the project and dozens of mills have been proposed for the pilot site restorations. France has an impressive water mill heritage with a sizeable hydro power potential which is just waiting to be exploited and benefit local heritage appropriation by creating cultural, social or tourist activities. To this day, there is no national index of this potential in France, or inventory of existing mills other than local and fragmented documents. Neglected and ignored, micro hydro power remains an asset to the energy transition. Hydro power is the most productive and competitive renewable energy: 1MW of hydro power provides 4000 hours/year (against 2200 hours for wind turbines and 1000 hours for solar power). The Water Framework directives in France will certainly be challenging. River classification in two lists will impose a ban (list 1) on all new river obstructions and restorations or, (list 2) the obligation, within 5 years, to restore existing weirs with fish passes.
France Hydro Electricité (FHE) and the French Mill Federation (FDMF), RESTOR Hydro project partners for France, are striving to limit the river classification decrees which are currently ongoing throughout the country. The classification proposals will be a major drawback for hydro power development. Small hydro potential in France is evaluated at 1500MW and 5.4 TWh; if the classification proposals are applied, 76% of the small hydro potential will remain unrealised. Reducing the list 1 classification by 3% would allow developing small hydro power whilst abiding with ecological continuity.

In France, small hydro power (>12MW) represents 7TWh, the equivalent of the consumption of the towns of Lyon and Toulouse put together. The hydro power industry is now perfectly adapted, offering fish friendly technologies, combining both power production and protection of river species and sediment flow. The RESTOR Hydro project will have to adapt to the water framework directives and hopes to overcome other predictable difficulties due to efficient communication and public participation through public shareholding co-ownership hydro cooperatives. A small hydro power citizen cooperative is an asset financially and technically for the success and the lifespan of a project. Also, this project is timely in that it should accelerate upgrading, which often remains a financial difficulty for mill owners.

The French Mill Federation (FDMF) encourages giving a meaning to any mill renovation; a hydro power project is one of the solutions which justify public and private investment. We defend the idea that heritage and modernism work well together and allows the mill heritage to survive in the landscape and local economy (millstone products, hydro power, culture and tourism). Economical niches are sizeable in the present economical situation.

Project partner for France (FHE/FDMF): restor.fr@gmail.com

First Mill products Forum
For the first time in France, an event specially dedicated to mill products will take place in Laudun, in the Gard (Languedoc Roussillon) on the 20th April 2013. Round table meetings, conferences, presentations, exhibitions, workshops and mill products of all types, will be displayed in the 900m2 well named “Forum” events hall in Laudun.
Contact: contact@fdmf.fr
Internet site: http://www.fdmf.fr/

NOUVELLES DES MOULINS DU QUERCY
Cet index, de même que les revues, à partir du numéro 48 sont téléchargeables sur notre site web http://www.moulinsduquercy.com, rubrique « notre revue ». Pour recevoir cette revue en version papier, vous pouvez vous abonner au prix de 30 € franco de port. Certains anciens numéros sont encore disponibles en version papier, vous pouvez vous les procurer en nous adressant une demande par mail à contact@moulinsduquercy.com. Bonne lecture de « La Vie des Moulins du Quercy »

NEWS FROM MOULINS DU QUERCY

The Moulins du Quercy review. The Association publishes a magazine called “La Vie des Moulins du Quercy” four times a year. This review reflects the life of the association, and carries technical articles, reports of visits, and information on FFAM and partner organisations. To celebrate its 30th anniversary, the Association des Moulins du Quercy has published an index of articles and information appearing in all its newletters. This index, as well as the magazine from issue No 48, can be downloaded from our website http://www.moulinsduquercy.com under “notre revue”.

To receive a printed version of the review, you can subscribe for €30 including postage. Some back-issues are still available in the paper version, and you can request these by e-mailing contact@moulinsduquercy.com. Enjoy reading ”The Life of Moulins du Quercy”!

SI VOUS VOYAGEZ EN FRANCE AU MOIS DE JUIN, VISITEZ LES MOULINS


IF YOU COME TO FRANCE IN JUNE, VISIT THE MILLS

“Les Journées du Patrimoine de Pays et des Moulins” will take place on Saturday 15 June and Sunday 16 June, and will be based on the theme “A Rounded Heritage”. The list of the mills and sites open for visits, and information about them, will be available from 15 April on our website http://www.moulinsduquercy.com

We received the following [this is a translation]:

ASSOCIATION LES MOULINS DES ARDENNES

Liesbet Diels
Rue des Routis-Bas, 6A
Moulin d’Herbeuval Rue du Moulin, 28 B-6823 Villers-devant Orval F-08370 Herbeuval

We are a small association, the “Association Les Moulins des Ardennes”, having as an object the valorization, knowledge, preservation, protection, conservation and promotion of the cultural heritage and tradition the mills of the French Ardennes (Bulge) represent. Our association is affiliated to the FFAM. We have created our website http://www.moulinsdesardennes.com.

Sincerely,
Liesbet GOMEZ-DIELS
A MUSEUM ON THE MOVE :  
THE PLANET OF MILLS  
(LA PLANÈTE DES MOULINS)  
Since Summer 2002, a collection of 15 working models of mills has been on show at the Luzech Tourist Office, 20 km west of Cahors. These small-scale mills, made by “La Planète des Moulins”, association headed by Jean Rogier, are meant to introduce the public to a whole range of century-old mills used all over the world.

As the showrooms have become inadequate to cope with the increasing number of new models, a 28-square metre floor space has been renovated and made available by the Luzech town council. This was an opportunity to improve the layout, so 2013 will be the beginning of a new era in the life of the museum. In addition to the indispensable repair work that has been done by various craftsmen, the association has enthusiastically set about arranging the displays. So the new museum, now confident in its future, will open in May.

28 working models will be on show, some of them educational and interactive. There will also be mechanisms and instruments connected with mills. Part of the floor space will be devoted to small domestic and craft mills, some rare, some quite remarkable. Every model and device is laid out so as to demonstrate its specific purpose and the genius of its design.

Visitors will plan their own visit – unless special arrangement has been made. They will be provided with various types of documents and the person in charge will answer any of their questions. It will also be possible to see some specific demonstrations.

Location : Quai Emile Gironde, 46140, Luzech (20 km west of Cahors), FRANCE
Open :
July and August : from 3 to 6 p.m. from Monday to Friday.
Outside these times, by special request.
May, June, September, October : please, call tel : 33 6 80 83 24 24

Admission :
3 euros
groups of ten persons and more : 2 euros
Access to two more museums in Luzech : 5 euros ; Groups of ten persons or more : 4 euros

The museum is due to open on Saturday 25 May 2013
THE MILL AND THE MILLERS' HOUSE AT ROISSY-EN-FRANCE

The Roissy-en-France Mill researches will be published in the last quarterly edition of the “Monde des Moulins” collection.

Archaeology and history

Under the direction of: Jean-Yves Dufour et Olivier Bauchet


Preface: André Desvallées - Heritage honorary general curator (Musée de France) and Alain Belmont (professor of Modern history, Grenoble)

The Roissy-en-France mill was established on the eastern boundary of the Val-d’Oise, in the centre of the Country of France, an area of vast plains set to the north and north-west of Paris.

The alluvium of the plains of France and the proximity to the great Parisian market were favourable to the development of an intensive cereal economy.

The excavations at Roissy allow us, for the first time, to examine the archaeological remains of a mill and millers’ house, with a collection of archived scientific, ethnographic and agricultural data, constituting a unique study opportunity in France.

Authorized by the kings letter of patent in 1541, the Roissy windmill is a communal mill built on one of the three small plots intended for the millers’ use. Set on a mound 20 meters in diameter, it is revealed by the remains of crossing walls linked by circular masonry. It is in fact a post mill. As early as the beginning of the 17th century it was surrounded by a fence and the enclosed ditches were re-organized. A house was built for the miller in the 17th century. Apart from the flour trade, a large number of shards reveal evidence of a dairy production which could have been practised in the early days in the cellar, and most certainly in an authentic dairy as from the second half of the 17th century.

Probably at the end of the 18th century, a larger mill was built instead of the first one. The millers’ house was also modified. In the 18th century it was composed of two rooms with small hexagonal clay floor tiles. A chimney was positioned on the dividing wall. In the courtyard, a pig sty and hen house were built with a lean-on against a barn to house a few dairy cows and the millers’ donkey or horse.

The Roissy miller lived on a small farm with an enclosed courtyard, confined by the constraint of a functioning windmill which necessitated the farmhouse buildings being in a limited and narrow corner.

According to rural tradition, the miller was seen as a physically strong and greedy character, made wealthy by his rights concerning the ground flour. Located in the heart of the most fertile cereal crop lands of the kingdom, and near the biggest centre of consumption of modern Europe, did the Roissy mill make its miller rich? The quality of the construction, the ceramic and glass shards, the fact that the miller ate meat and the written evidence reveal information giving several consecutive contrasted images of the quality of the millers’ lifestyle. The ups and downs in the Roissy millers’ activity give a logical explanation of the contrasts noticed in the waste remains (fauna and ceramic) or texts (list of taxes, lease archives).

Moreover, the archaeological research was carried out by an archive analysis allowing the estimation of the Roissy millers’ production, the wear and tear of his millstones and that of his income. The origins, marriages, length of leasing contracts… also bring to light the socio- economic identity of the successive
millers at Roissy.
Finally, an analysis of two crumbs of bread dating from the 17th century found during the excavations, plunge us to the heart of the very purpose of grain mills.
(Text Jean-Yves Dufour and Olivier Bauchet, translated by Bridget Petit, Fédération des Moulins de France)
Fédération Des Moulins de France
contact@fdmf.fr

In This Issue
Intro by our President
World News
World Articles
Book Reviews
E-News Team

Information Links Council
TIMS Home Page
Membership 2013
Our Bookshops

Click here for printable version

« LA LETTRE FDMF N°12 - DECEMBRE 2012 »
Nous rappelons que cette lettre est destinée à informer les responsables des associations adhérentes comme les membres du Collège des Membres Individuels et les Partenaires, sur les activités de la Fédération, ses actions nationales au service des moulins, ses projets et contacts. Elle est destinée à informer l’ensemble des adhérents. Pensez à la diffuser largement auprès de vos adhérents.

SPECIAL CONGRES 2013 :
Un voyage découverte, l’Assemblée Générale de la FDMF, le Forum National des Moulins Producteurs…
Une mobilisation exceptionnelle pour un congrès exceptionnel
18 - 19 - 20 - 21 Avril 2013

1. Premier Forum National des Moulins Producteurs :
Grâce à l’engagement fort de la ville de Laudun L’Ardoise qui mobilise d’importants moyens, nous pourrons accueillir dans un espace dédié (le Forum, bien nommé) les congressistes, les professionnels et institutions invités, le grand public.
- Le « Marché des Moulins » (Liste non exhaustive des stands, avec les participants ayant actuellement annoncé leur intention d’y participer)
Les produits de la meule :
* Farines : Moulin de la Fage (Lot et Garonne) – Moulin de Bertaud (Ille et Vilaine) (Blé noir) – Moulin de la Pauze (Dordogne) - Moulin d’Olmer (Aude) – Moulin de Rapatel (Dordogne) (Châtaignes)
* Huiles : Moulin des Massons (Loire) (noix, colza…) – Moulin de Cante-Perdrix (Gard) (olives) – Moulin du Clos des Jeannons (Vaucluse) (olives) – Office Tourisme de Jonzac (Charente Maritime) (Noix)
*Papiers : Moulin de Brousse (Aude)
*Cidre : Ferme d’Hotte (Aube)
*Hydro Electricité : France Hydro Electricité – Enercoop (Coopérative nationale de production et distribution) – Projet RESTOR HYDRO

La marque « moulin » : Moulin de Pourpré (Gard) (Vins)
Les moulins et les livres : Libraire de Laudun – Association pour la sauvegarde et la promotion du patrimoine industriel (Vaucluse), publications de la FDMF

- Des animations/expositions : maquettes de Moulins (vent, eau) (Haute Garonne, Aude) - moulins à main (Moulins de l’Alma) – du blé au pain (Dordogne) – les meules du monde (Moleriae) – animations enfants (Médiathèque de Laudun)
-Des stands d’information : Infos tourisme de Laudun
– la FDMF- les associations
-Des tables rondes (programme non définitif)
* « Les moulins, acteurs du tourisme culturel » (Office de tourisme St-Ambroix, Moulin de la Laurède (Ariège), Agglomération du Grand Alès, Maison de l’eau (Gard)…
* « Les produits de la meule, les conditions de leur développement » (Moulin de la Fage (Lot et Garonne) – Bio Provence – Chef cuisiner (Jérôme Héraud) (Alpes Maritimes) – CERVIA (labellisations)…)
* « Les moulins producteurs d’énergie » (France Hydro Electricité – Enercoop – Projet Restor Hydro- Ministère de l’Energie…)
* « Restaurer un moulin, pourquoi et comment ? » (Fondation du Patrimoine- Moulin de Vénéjan – Constructeur amoulageur Croix – Syndicat mixte des Gorges du Gardon – Moulin de la Ramière…)
-Conférence : de Samuel Longepierre - les carrières de meules de St Quentin La Poterie
- Inauguration officielle : Patrice Prat, député maire de Laudun, Conseil Général du Gard, Conseil Régional Languedoc Roussillon, élus locaux...

2. Lè Le voyage, une région à découvrir :
Le programme prévu dessine les contours de cet évènement :
**Jeudi 18 avril 2013 : Circuit en car : Saint Laurent des Arbres – Langlade – Dions - Saint Laurent des Arbres** accueil à l’hôtel entre 10 h et 12h. Un plateau repas peut vous être servi sur commande à 12 h mais vous pouvez aussi envisager de porter un sandwich. 12 h30 Départ en car depuis l’hôtel pour Langlade (visite du Moulin à vent) puis Dions (visite du moulin à vent transformé en moulin à huile d’olives) 17 h départ pour Hôtel 18h – 20h : Assemblée générale de la FDMF - 20h30 : dîner.

**Vendredi 19 avril 2013 : Circuit en car : St Laurent des Arbres - Saint Ambroix - Saint-Quentin-La Poterie –Vénéjan - Saint Laurent des Arbres** 7 h 30- Départ en car de l’hôtel pour Saint Ambroix vestiges industriel de la ville (filatures), minoterie Bonnet, four à pain à 2 étages qui fonctionnait à la vapeur, site d’une magnanerie et ses vestiges de moulins du Vebron - Saint Quentin la Poterie : déjeuner puis visite du village, des ateliers de potiers, visite du musée de la poterie (ancien moulin à huile ) ou visite de la carrière de meules, Vénéjan visite du moulin à vent - Saint Laurent des arbres , visite du village, dîner.

**Samedi 20 avril 2013 - Laudun L’Ardoise** Journée réservée au 1° Forum National des Moulins Producteurs : tables rondes, stands, marché des moulins, déjeuner et dîner au forum. Pour les congressistes qui le désirent, en option, visites guidées de la ville, du camp de César, du moulin de la Ramière et de sa noria.

**Dimanche 21 avril 2013** - Départ de l’hôtel en bus à 8 h pour Gordes (Vaucluse) Le Moulin des Bouillons et le musée du vitrail, le moulin à huile du clos des Jeannons - le moulin troglodyte….visite de la cave, déjeuner sur place et retour à l’hôtel.
Ce programme est susceptible de modifications en fonction du nombre de participants et d’aléas de dernière minute.

3. L’Assemblée Générale de la FDMF :

Si vous envisagez de mettre à disposition documents, diaporama, photos, exposition, prenez contact par mail, en retour, avec Christian Péron, Secrétaire de la FMDF, à contact@fdmf.fr ou pour toute autre information sur ce congrès exceptionnel ! A bientôt…

---

**Fédération Des Moulins de France**

**CONGRÉS dans le Gard**

<table>
<thead>
<tr>
<th>Jour (Jeudi, Vendredi, Samedi)</th>
<th>Nom</th>
<th>Prénom</th>
<th>Tél</th>
<th>Mobile</th>
<th>Email</th>
</tr>
</thead>
</table>

---

**Association adhérente à la FMDF à laquelle vous appartenez**

| Emplacement (2 personnes) | 375 € | 
| Emplacement simple (1 personne) | 15 € | 

**Cotation CH**

**Option chèques par personne (s)jeudi 18 avril 2013**

| Emplacement (2 personnes) | 375 € | 
| Emplacement simple (1 personne) | 15 € | 

---

**Renseignements**

- Assurance annulation
- Excursions en option, contactez-nous pour plus d’informations.

---

**Greece**

**A VISIT TO THE OPEN-AIR WATER POWER MUSEUM IN DIMITSANA**

On Wednesday, 04.04.2012, representatives of The International Molinological Society, as well as TIMS’ secretary Mr. Tarcis Van Bergen Henegouwen, visited the Open-Air Water Power Museum in Dimitsana. The visit included a tour around the museum, showcasing various water-powered mills and equipment used in Greek agriculture. The museum provides a unique insight into the history and technology of water-driven machinery, offering visitors a glimpse into the past and the importance of water in the Greek landscape. The day ended with a delicious Greek lunch at a nearby taverna, providing an unforgettable experience for all participants.
Open-Air Water Power Museum, which belongs to the network of museums of Piraeus Bank Group Cultural Foundation, is a thematic museum centred on the importance of hydraulic power in traditional societies, which presents the basic pre-industrial techniques using water as their main source of energy to produce various goods.

The members were guided in the museum and also viewed 2 films associated with the exhibits:
1) The watermill and the fulling-tub, production 2010, run. time : 09΄:18΄΄, and
2) Gunpowder mills of Dimitsana, Production 1997, run. time : 19΄: 05΄΄

THE WATER MILLS OF THE PRESPA LAKES AREA

Presentation of papers about water-mills in northern Greece.

Three papers were presented during a one day seminar-workshop, held at the Institute of Hellenic Mills (I.T.E.M.) on Saturday December 15th, 2012. The authors were three architects named Sofoklis Kotsopoulos, Achilleas Stoios and Angela Georganda. The title of this seminar was: “Traditional water-mills on Varnoundas mountain near Florina.” The project involved regional planning of the area and went as far as to propose a detailed restoration of the best preserved water-mill characteristic of this region.

The water Mills of the Prespa lakes area

The water-mills near the villages of Aghios Germanos and Kratero are located on the slopes of Varnoundas mountain, (altitude between 660 and 2.000 m) a northern continuation of the greater Pindos mountain range. The well-known Prespa -lakes (shared between Greece, Albania and F.Y.R.o.M.) are its western limit, while the plain of Florina occupies its eastern one. An abundance of water streams form no less than six different lakes. The rain period is extensive and the climate continental. These ideal surroundings enabled the inhabitants to build several water-powered flour-mills for processing crops produced nearby, as well as for processing and washing the locally made wool fabrics and rugs.

At the beginning of 1900, the Aghios Germanos valley slopes were shaped by peasants to huge terraces, supported by stone walls, in order to form consecutive horizontal fields, where rye was cultivated. At that time, people around the Prespa lakes were using boats to transport their crops across the lakes freely. Additionally, they used mules to transport the crops further, alongside the surrounding river banks to the various water-mills in the area. After World War II, the nations’ borders were closed. Therefore, such traffic was not possible any longer.

Furthermore, the civil war that followed, forced the people belonging to the defeated side to abandon Greece and seek refuge in the nearby Balkan states, remaining there for several decades. The new inhabitants were peasants who new nothing about mills, so the buildings were useless, and consequently abandoned.
According to a French map of 1919, there were 6 mills near Florina city, while a total number of 95 mills, containing 135 mechanisms (usually double or triple mill stones) situated near the remaining 9 rural settlements, within a range of 20 km.

Presently these are abandoned but still standing in ruins. It is considered an opportunity for this project development plan by the above mentioned three architects. It involves the whole Prespa lakes area, by means of designing walking paths, combined with a reevaluation of the most characteristic mills environment at the lake villages of Kratero and Aghios Germanos on the Greek side.

**Kratero village water-mills**

When dealing with Kratero village water-mills, we must take into account that they were collectively managed by members of big families. They were all privately owned and the area restoration project involves all 15 water-mills along walking paths, aimed at educational visits. Most of the mills were one-storey stone buildings, (4.5 x 6.0 m) housing a single mechanism and placed perpendicularly to the water canals made of local stone. The site is alongside Crateriotis river, slightly above water level, in order to avoid river overflow.

When designing pedestrian routes connecting the various mills, the architectural team followed the existing mountain paths in addition to six new metallic bridges considered necessary. Guiding signs were also needed and planned for, while new stone pavements were seldom necessary, since the planners wished to maintain forest paths. Only the existing cobble stone paths were to be repaired, in order to preserve existing character of the place.

**Aghios Germanos mill project.**

The Aghios Germanos Mill is the only preserved water mill inside the National Park of the Prespa lakes. Its construction is dated back in 1930. It was previously repaired in 2001 by the above mentioned Park authority called “The Non-Governmental Society for the Protection of the Prespa lakes”.

The use of this mill was three-fold, containing different mechanisms for three distinctive purposes, namely crop grinding, “mandani” i.e. “fulling mill” for woven fabrics and rugs and fulling tubs for such fabrics.

This complex water-driven system should be entirely restored and illustrated for the public, the best possible way, according to this project.

The restoration project proposes the following steps:

1. Complete building renovation concerning both style and construction of the building and the relative water canal leading to it, using building materials similar to the original ones.

2. Reconstruction of all three original mechanisms contained inside. The main purpose, though, was that only two of them should be functioning as a grinding devise and a “fulling mill” respectively. The third one, i.e. fulling tubs for woven materials will serve merely as an exhibition, without being functional.

The reason is that one should avoid eventual river pollution by the waste water containing detergents, added by some users without permission.
3. Reevaluation of the immediate surroundings of the water-mill with special consideration for the water canal leading to the driving wheel on the back side and a user-friendly pavement in front.

4. Information material about both the mill and its surrounding ecosystem, highlighting the traditional cultural aspects of this project.

Photo of Aghios Germanos water-mill

Aghios Germanos mill Facade

Length section of water-mill

Cross section of water driven mill

Water-mill grinding mechanism
In this Issue

Intro by our President
World News
World Articles
Book Reviews
E-News Team

Information Links
Council
TIMS Home Page
Membership 2013
Our Bookshops

Click here for printable version

A WINDMILL STUDY IN PROCESS BY EVE MOUTSOPOULOU
(Eve Moutsopoulou is an Msc architecture engineering NTUA and a Phd student in TUC Department of Architecture.)

The area of Upper Mirabello (Lasithi East Crete), is an arid area with an economy based on the olive tree cultivation (with many olive oil mills), almond and carob trees, and in a lesser degree vines. Cereals were also cultivated and the flour was exclusively produced by wind mills. A system with cisterns was
developed to collect rain water for the gardens.
The area was developed mainly during the Venetian domination. Later, particularly after 1500, when many monasteries were founded (Areti, Kardamoutsa, etc) as the Venetians gave certain privileges to the monasteries.
The windmill types found in the area are mainly U-shape floor type (monokairoi) and rarely tower windmills, in groups of 5 to 14 (windmill area called Milotopos) in critical places with air flow streams on an altitude between 400 to 550 meters. The sails always face the NW.

What is particularly interesting, is the fact that each village has its own autonomy, that is it has a Milotopos, its oil mills and its cisterns, despite the fact that neighboring settlements are in a short distance and belong to the same district in the census.
The aim of the study is to present the types of mill mechanisms and the correlation with their satellite settlements (what are the maximum distances since path links have today disappeared), the mill to population ratio and the relation of the positions with the wind dynamics maps. In other words to study the windmills in relation to the topography of the natural and man made landscape.
The group of 14 windmills (13 U-shape floor type, 1 round floor type) at Galatopetra area, near Fourni Village, served the needs of about 650 people until 1960.

Each settlement at the hill country of Mirabello (Lassithi- Crete) has similar groups of windmills. The number of the ‘machines’ was always depended on the population.

a typical mechanical part of a U-shape floor type windmill in Mirabello

IRELAND/USA

Volunteers from United States visit Irish Mills and Millers

De Immigrant windmill and the Windmill Cultural Center in Fulton, Illinois, sent four volunteers to Ireland in October 2012. The purpose of the trip was to learn about the history of Irish mills, the way mills are operated in Ireland, how millers and volunteers interact with each other, and how we can learn from each other.
Volunteer Millers Judy Holesinger and Heidi Kolk were joined on the trip by Volunteer Educators Betty Wiebenga and Pam VanZuiden. The group spent four days in Skerries, Ireland, at the mill complex which showcases two windmills and one watermill along with a cafe and gift shop. The Fulton representatives were able to show a PowerPoint presentation at a session open to the general public.

The group also met with site manager Ray Hunt for a roundtable discussion, toured the mills with guide Paddy McCormack, and presented a youth program to St. Patrick’s School children, which sits in the shadow of the Great Windmill of Skerries. Fulton’s millers and educators greet hundreds of students each year, so they were thrilled to be able to show the Irish students about their programs for children and the windmill’s youth organization “The Miller Club.” There were many questions for the Americans by the children.

Site Manager Ray Hunt was able to arrange for the travelers to visit Miller James Tallon at Martry Mill near Kells, Ireland. He proudly showed the new German-made paddles on his waterwheel. The group was also given a tour of the inside of the working mill and watched as corn was ground. Miller Tallon was also serving as the president of the Mills and Millers of Ireland organization when the Fulton visitors toured his mill.

Fulton volunteers VanZuiden and Holesinger continued to explore Ireland’s mill history visiting both windmills and watermills in Enniscorthy, Tacumshane, Midleton, Tralee, and Bective. They were also honored to be able to attend and present at the annual autumn meeting of the Mills and Millers of Ireland organization held on October 20 at the Hotel Kilmore in Cavan. The meeting included tours of Lifeforce Mill and Lurganboy Mill, both watermills in County Cavan.

The reason for the visit was to meet with mill enthusiasts in Ireland and learn how they interact with guests at their mills. (Fulton’s Windmill Cultural Center houses a model of the Irish Tacumshane windmill.) Volunteers from Fulton have previously had exchanges with mills in the United States and The Netherlands. Fulton millers have also attended mill conferences in The Netherlands and Denmark. Fulton’s volunteers find it is vital to develop a deeper understanding of mill history and culture by visiting other mill areas throughout the United States and the world.

For more information about Fulton’s windmill and cultural center, visit www.CityofFulton.us.

James Tallon, Miller at Martry Mill, shows his mill to Fulton Volunteer Pam VanZuiden

Volunteer Educator Pam VanZuiden teaches children at St. Patrick’s School in Skerries, Ireland

Paddy McCormack gives a tour to Fulton Volunteer Betty Wiebenga in the Skerries watermill
- 8TH Tide Mill Conference
  TMI’s November 2012 annual conference. Titled “Harnessing the Tides: 1194-2012,” was attended by 80 mill enthusiasts. There were topic presentations and discussions on topics as:
  - a Thames River Anglo Saxon period tide mill in Greenwich that was discovered in 2009 by Simon Davis from the Museum of London Archaeology.
  - family relationships to tide mills in the Winnegance section of Bath, rightfully called the “Tide Mill Capital of America.”
  - “My Family’s Tide Mill,” by John G Morse IV.
  - discussion on characteristics and limitations of tidal mills, barrages and marine hydro-kinetic generation methods, showing how factors such as cost of facilities versus the value of energy produced and environmental concerns have limited development of the industry, by Todd Griset, an environmental lawyer.
  - the Maine Tidal Initiative, reinforcing Griset’s theme that tidal power generation is no longer just an idea, explaining how his organization developed from efforts by three of the region’s colleges and universities, by Mick Peterson.
  There were also visits to:
  - the large 1837 dam of the Parker Head mill in Phippsburg and Arrowsic’s Spinney mill (1719-1928 with its mill machinery still lying visible in the mud and
  - the Great Winnegance Dam

Next year the conference will be held in Massachusetts.
Kerr Canning, a retired physics teacher, was studying the slowly eroding bank of the tidal Apple River that flowed through a salt marsh on the Fundy side of the peninsula at the head of Nova Scotia’s Minas Basin. Over a period of years he noticed, photographed, measured and carefully studied a wooden, mill-like structure being uncovered by water running through the marsh. Posts, a long wooden deck and a 12-foot long, 16 inch diameter shaft and a small section of what may have been a tub wheel.
Lockes Mill in Berryville, VA. restored

1930’s 2013

Jon Joyce, TIMS member and owner of the Lockes mill, reports the completion of the restoration of his mill. The mill burned down to the ground many years ago and the results are amazing, which shows what can be done with the effort and of course available funds Ben Hassett, the former apprentice to Derek Ogden, did most of the mill work on this mill as well as the beautiful Burwell-Morgan mill also nearby in Millwood VA.

Latest info at Thompson’s Mills State Heritage Site located near Shed, Oregon, USA, By Martin E. Thompson, grandson of early mill owner

1. Inspection of the three water turbines by a qualified person indicated all were in poor condition and inoperable. At least one will be refurbished or replaced to provide water power to operate some of the equipment.
2. As a back-up to water power, much of the mill can also be operated from electric power from the local utility.
3. Planing is underway to restore some of the kitchen garden and orchard that once existed at the site.
4. Some planning activity is underway to make the mill keepers house open to the general public. This house was constructed in 1904 and expanded in 1917. Many visitors have expressed a desire to tour the house.
5. Some recent flood damage in the basement of the mill is scheduled for repair. Floods do occur in the Calapooia River watershed and are to be expected. Flood waters have damaged the basement floor which consisted of wood planks which were found to be disconnected from floor framing and floating.

ARTICLES AND INFORMATION FROM AROUND THE WORLD

GERMANY

A „Via Molina“ as a “European Cultural Route” in Europe?

By Gundolf Scheweling, Osnabrück

After the horrors of two world wars in the heart of Europe the English Prime Minister Winston Churchill developed his vision of a United States of Europe in 1946, which was then put into practice on 5th May 1949 with the founding of a “Council of Europe” in London by ten European countries.
Today this European organization, which is located in the European Palace in Strassburg, consists of 47 countries. It is neither institutionally linked with the European Union, nor should it be mistaken for the European Council or the EU Council of Ministers.

The aim of the Council of Europe is to establish close ties between its member states on an economic, social and cultural level. When looking at a list of its individual tasks, one can read about developing an awareness of a joint European identity among the citizens of its member countries.

In order to breathe life into this process of shaping awareness, the idea of “European cultural routes” was born in 1964. It is meant to connect elements from various cultural areas, which the different countries have in common, across borders.

The goal of such European cultural routes is among other things to demonstrate and experience the joint cultural identity of citizens from different European countries, to conserve and enhance the European cultural heritage and to offer Europeans new possibilities of cultural tourism.

Following the suggestion of the Council of Europe “the Way of St James” was the first European cultural route being opened in 1987. This pilgrimage route leading through several European countries to Santiago de Compostela in northwestern Spain has meanwhile acquired a worldwide reputation.

Precondition to the installation of a European cultural route is the fact that the project must be trans-national, which means that more than one country must be involved, and that its cultural history must be significant across the borders of a region or a country in order to demonstrate cultural similarities of different states and regions.

Since 1987 29 European cultural routes have been set up meanwhile, among them the “Viking route”, the “European Mozart Routes”, the “European Route of Migrational Heritage”, the “Olivetree Route” and the “Don Quichotte Route”.

With the purpose of supporting the creation of such European cultural routes the European Institute for Cultural Routes has been established in 1998 as an executive agency in Luxemburg. Its responsibility encompasses, among other things, the help of project participants, the training of coordinators, it functions itself as coordinator between the cultural routes and the European institutions and represents and supports the cultural routes.

Mills are without doubt destined to be brought together under the head of a joined “Cultural Mill Route” since they have been in existence in Europe for more than two Thousand years and have constituted until today a worldwide, cross-border cultural heritage.

The idea of such a “European Mill Route”, a “Via Molina” (in more correct Latin it should read: Via Molinarum) was come up with a couple of years ago by the initiators of the “Lower Saxony Mill Route” in the area of the Lüneburg Heath by the mill enthusiast Heinz Thiemann, living in the village of Bardowick. The “Lower Saxony Mill Route” meanwhile connects 427 mills in altogether 29 districts.

At a first meeting at the beginning of March 2012 in the old water mill in the heart of Lüneburg, the future perspectives and chances of accomplishing such a European Mill Route in different European countries was discussed by representatives of various institutions, who deal with mills and their preservation.

Within Germany there are more than a dozen regional mill routes already, which could fairly easily be incorporated into an expanded European mill route concept.

A next step would be to spread the idea of a “Via Molina” among other European countries, which have existing regional and nationwide mill organisations. Without doubt such a widespread project requires the support of the various mill associations at regional, national and international level, as well as national support of the state governments and the administrative districts, of tourist associations and institutions for the preservation of historical monuments.
The way to a European “Via Molina” will surely be a long one, as experiences have shown with the installation of mill routes in German regions. With regard to the long history of mills for more than two millennia, even ten years would be a comparatively small time span for the final appropriation and installation of a European “Via Molina”, which could continually be developed and enlarged. It is up to all of us to send a truly interesting mill project on a European journey!

GREECE

Three parts of a watermill mechanism from Korthi area, Andros island

Rynd

Shoe (the lower left side which sticks out is the vibrating rode for the shoe)

Chute nozzle

THE NETHERLANDS

Sustainable development with traditional mills
©Jan Spaens 2012, jan.spaens@gmail.com, Amis du Moulin Bas et de l’Énergie Renouvelable

Charter of Venice – Conservation of cultural properties

Piero Gazzola, in “Proceedings of the IInd International Congress of Architects and Technicians of Historical Monuments, 1971”:

[…]The results of this meeting in Venice are momentous. We need only recall the creation of the International Council of Monuments and Sites (ICOMOS), the institution which constitutes the court of highest appeal in the area of the
restoration of monuments, and of the conservation of ancient historical centres, of the landscape and in general of places of artistic and historical importance. [...] But above all, it is to be recognised that the most important positive result by far of this assembly has been the formulation of the international code for restoration: not simply a cultural episode but a text of historical importance. From this point onwards, the Charter of Venice has become the official code in the field of the conservation of cultural properties throughout the world.” For more information, see http://international.icomos.org/venicecharter2004/index.html

**Definition of ‘Historical Mills’**
Molinology is the study of mills and other mechanical devices which use the energy of moving water or wind, or the strength of animal or human muscle to power machines for such purposes as hammering, grinding, pumping, sawing, pressing or fulling. In particular, molinology aims to retain the knowledge of those traditional engines which have been rendered obsolete by modern technical and economic trends.

Mills are considered as ‘historical’ when they are complying with the definition above and when their origin dates from before the industrial revolution. See http://www.molinology.org

Low Countries
Historically, “wind rights” (windrecht) referred to a tax paid by millers in the Low Countries before around 1800. The tax was paid on the “wind catch” (windvang) needed to turn a windmill, but it was often based on the windmill’s output. [1] [2]

Since a windmill in a ‘heerlijkheid’ was primarily the property of the lord (although leased out to a miller), wind rights were one way for a lord to discourage competition. In consideration for payment of this tax, the lord ensured that there were no wind obstructions around the mill by imposing a prohibition on buildings and high trees in the area. Another obligation imposed on residents was the “mill obligation” (molendwang), which required them to have their grain ground at the lord’s mill. To a certain extent, this was another way for a lord to safeguard the income received from the mill.

Because of these rights and obligations, windmills had to be identifiable. They each had a name, traditionally the name of an animal. An image of the animal was placed on the mill so that even those who were illiterate would know which mill was which.

In the Netherlands, wind rights and the mill obligations were ended around 1800 when a new constitution was introduced in the Batavian Republic. Similar concepts still exist in modern times. Since around 1973 the wind needed to turn a mill has been referred to as the “windmill biotope” (molenbiotoop). An area of 375 metres around a windmill is maintained as a “free zone” so that the windmill can have enough wind. For polder windmills, ensuring that windmills have enough wind is the responsibility of the water board (waterschap or hoogheemraadschap). However, this seldom takes priority over the desire of municipalities to build new housing. This document is meant to stress the importance of maintaining the “free zone” around windmills, this as described above.

**Free migration of fish – Natura 2000**
The European Union is seeking to ensure biodiversity by conserving natural habitats and wild fauna and flora in the territory of the Member States. An ecological network of special protected areas, known as “Natura 2000”, is being set up for this purpose.
The network is given coherence by other activities involving monitoring and surveillance, reintroduction of native species, introduction of non-native species, research and education. See also: [http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/l28076_en.htm](http://europa.eu/legislation_summaries/environment/nature_and_biodiversity/l28076_en.htm)

This document stresses the importance of the protection of the historical, sociological and cultural artifices in the context of establishing or re-establishing a healthy natural environment.

The continuing deterioration of natural habitats and the threats posed to certain species are one of the main concerns of European Union (EU) environment policy. The Directive, known as the Habitats Directive, is intended to help maintain biodiversity in the Member States by defining a common framework for the conservation of wild plants and animals and habitats of Community interest. This framework should consider the importance of historical artifices that make up the cultural heritage of our European society. Unilateral and/or arbitrary interventions could cause irreversible damage to our environment, destroying valuable heritage artifices forever.

**Economy – Energy – Ecology => E³**

In view of the DCE 2000 on establishing a framework for Community action in the field of water policy and threats to wind rights, a robust framework for protecting historic/traditional windmills and watermills is required. This framework is based on three force trajectories: Economical, Energy production and Ecological considerations. These three ‘E’ words are transformed into E³ or E-cube.

Within the three force trajectories, seven key points of interest form the basis of the business plan to conserve, restore and maintain the historic buildings which wind and watermills are. Executing the business plan means that tens of thousands of wind and watermills across Europe will be able to make a significant contribution to their local economy, whether by producing foodstuffs, acting as a focal point for local food in the local economy, as a visitor and tourism attraction, or by generating renewable energy. These key points are not mutually exclusive and one mill site can fulfill all these roles at the same time. The seven key points detailing why watermills and, to a lesser extent, windmills, are well suited to be rehabilitated to fulfill new goals are:

1. Sustainable production of renewable energy and local food production
2. Living environment
3. Natural environment
4. Commerce and industry
5. Tourism
6. Heritage
7. Quality of life

Renovated historic/traditional watermills and windmills are contributing to the achievement of these goals in the following ways:

1) The resurgence of interest in local sustainable food seen across European States and in particular artisan flour and bread means it is now, once again, economically viable for local flour mills to return to their original purpose of flour production. Mills can once again become a centre of commercial activity in the local economy, milling local grain from local farms for local bakeries and direct customers.

A functional watermill is also a potential site for the production of sustainable energy. By installing micro-hydro infrastructure alongside the historic mill building and its machinery, the site can be used for renewable energy production whilst continuing to protect the historic fabric of the mill. Such energy production re-uses existing site infrastructure, such as weirs, mill ponds and leads, so reduces the ecological footprint of installing new energy generating capacity. The increase in generating capacity from micro-hydro schemes
all contributes to reduce the need for less sustainable energy generators including nuclear power production.

2) A mill producing renewable energy reduces the emission of carbon gas. This can and indeed must be used as educational example for our children and future generations to raise awareness of practical measures that can address the negative impact of global warming caused by nonrenewable energy generation.

3) The natural environment can benefit from historic watermills with traditional waterwheels. The wheels have a proven oxygenating function that has a beneficial effect on aquatic life. Bio diversity is increased near the ponds and watercourses associated with historic watermills. Again, this can serve as an educational example for our children and raise awareness for future generations.

4) In order to conserve, restore and maintain historic/traditional mills in working order, local millwrights, builders and trades-people must be engaged. Their activities will ensure that the ancient craft of millwrighting remains alive and indeed grows and develops across the Member States. A historic/traditional mill in working order creates and attracts several streams of activities, each of them triggering in their turn other industrial activities and/or increased activity amongst local establishments such as farmers, bakeries, hotels, restaurants and other businesses.

5) Mills have been part of human development since the beginning of civilization. The environment they are situated in and their structure promotes tourism. As entities where people can witness the production of goods such as flour, sawn timber and cloth as well as renewable energy production, historic/traditional mills are important levers of tourism and educational activities of all kinds.

6) The importance of historic/traditional mills cannot be underestimated. Mills are part of human civilization. They made it possible for humanity to flourish because they were, for centuries, the only means to produce, process, or manufacture food and artifacts on an industrial scale, as well as being used for pumping and water-management. It is only in the last century, because of the usage of non-reusable and non-sustainable energy sources, that historic/traditional mills have lost their industrial importance. Today, we witness the resurrection of these sleeping giants that have played such an important part in European culture and our local communities. By giving them a new role, they can come to life again and contribute to the further development of our civilization without causing negative side effects. The heritage value of historic/traditional wind and watermills is very important. Mills are, next to churches and castles, the third heritage of our civilization, embracing and developing architectural, agricultural and mechanical qualities; enough reason to put significant resources in it to conserving them or restoring them to their former glory. Without doubt, this heritage can create a significant contribution to the tourism economy.

If the European government put effort into their rescue it would reap significant visible and useful rewards and benefits for local and regional communities, both culturally and economically.

The resurrection of Europe’s traditional mills would strengthen its distinctive historic identity.

7) Historic/traditional mills contribute to the quality of life whether they are used for milling grain for flour or for any of the other historic purposes (including generating renewable energy), making a positive, measurable contribution to the day to day comfort of Europe’s citizens. Again, if Europe puts effort in resurrecting its historic/traditional mill resources, it will prove that it is seriously committed to the creation of sustainable industry, thus sending an important message to the general public highlighting the importance of the European approach.

Historic/traditional mills, conserved or restored to full working order, will enable the achievement of the seven key points of interest for all member states’ governments as they are listed above. Six tangible goals will be reached:

1) Increased provision of local sustainable food supporting local businesses within the community,
2) Reduction of the ecological footprint,
3) Awareness of new generations for sustainable and renewable energy,
4) The conservation of a vital part of Europe’s industrial, agricultural, architectural and mechanical heritage,
5) Increased use of local establishments and industry,
6) Visible, concerted European government action to address climate change
As well as the above mentioned goals, the proposed directive will have additional, beneficial side effects on three levels:

a) Economy – Industrial activities concerning the production of sustainable food and renewable energy, now mostly concentrated around wind and solar energy, will expand if the thousands of historic/traditional wind and watermills are included in the domain of energy resources. Restoring them and/or adapting mill sites to accommodate modern technology without compromising the original historic fabric of the mill building and machinery requires research and development of new techniques, re-use and evolution of traditional techniques. Compromising the historic integrity of historic mill buildings, their machinery and setting in the environment must be avoided. This will require special skills – most of which will need to be specially developed. If and when these historic mills are added to the energy production grid, their presence will open up other opportunities. To maximize these further research will be required, which will, in its turn, create yet further development opportunities.

b) Energy – As briefly mentioned in point (a), the thousands of historic/traditional mills spread over the whole area of all member states represent a considerable resource of energy which only needs to be exploited. In France alone there are over 12,000 known watermills located. Only a small percentage of them are equipped to produce energy to deliver to the grid. By creating a climate that encourages the makeover of historic/traditional mills to production plants, it is estimated that in France alone we may count on 2.700GW, the equivalent of one nuclear power unit. The potential in other member states will probably be in relatively the same order per (surface) unit.

c) Ecology – Functioning watermills are small micro-biotopes where aquatic and botanic life is considerably higher and richer in the surrounding environment. By the nature of the activity, watermills are a catalyst for different kinds of life. They are also watchdogs for surface water quality. Their exploitation requires surveillance which can register changes in surface water quality. By engaging them as measuring units, the existing grid of measuring points can be extended considerably, thus contributing to the overall ecological surveillance in Europe.

CONCLUSION
All of the above demonstrates clearly and convincingly that it is vitally important to create a European directive in order to produce a framework to protect, conserve, maintain, restore and develop as many historic/traditional mills as possible in all member states, especially those that can be shown to have the potential to contribute to the aims of the Directive. Historic/traditional mills can fill in a large number of functions, all of them sustainable and based on renewable energy. For these reasons, a directive should contain the following guidelines:

Talking about mill preservation is also bringing smart proposals. Some thinking about the subject could produce a proposal for directive in the following sense:
1- Member states should encourage the conservation, restoration and repair of their historic/traditional wind and watermills in order to protect these important historic buildings
2- Efforts must be made to take full advantage of the potential of historic/traditional mills and mill sites for renewable energy generation for member states
3- In case of doubt concerning wind or water rights, the benefit of doubt should be applied to historic/traditional mills dating from before 1900.
4. Member state regulations should be adapted in the way that historic/traditional watermills are protected from depriving them from water supply. Any historic/traditional mill that has been deprived from its water supply after 1900 should be considered as having the right to claim back its supply.

5. Measures must be taken to facilitate the connecting of historic/traditional mill energy production to the existing grid.

6. Historic/traditional mills should be given special consideration for grant aid and support. The application of building or renovation rules should be modified in favor of conserving and restoring mills.

7. Measures should be taken in order to facilitate the adaptation of mill sites in order to produce renewable energy without disturbing the original fabric or historic integrity of the mill.

SOUTH AFRICA

152. 10th March 2012 Compagnes Drift Mill. Groenfontein Spelt Again!, by Andy Selfe

An early start meant that I was back at Groenfontein at 7.30. It was one of those magic autumn days! I was beating the sun all the way and only met it at Op-die-Berg. I was in time to help with the first task of the day, picking Pinot Noir, grown here organically and at a high altitude, hopefully much sought after by winemakers! The bird-netting had just been removed, the sugar was right, and it was still cool.

Everybody on the farm was involved, the builders, the manager, even the Boss! As soon as that job was done and the grapes were in the fridge, we could turn our attention to the Spelt Mill!
Since I was last there, the area in the shed where we had been testing the equipment had been built into a separate room, rat-proofed, painted out; it had a screed on the floor which was painted, too. We discussed the layout in detail, with emphasis on easy flow between machines, so that what we do now by hand, can later be done with mechanical handling. We also wanted to know that the bulky trash, which is high-grade animal feed, was easily accessible to remove.

Using the kit of pipes and clamps which came with the Kongskilde blower, which sucks an air stream through the falling grain and chaff from the outlet of the Spelt-peeler, we were able to raise the cyclone so that a bag can be easily hung from the outlet at the bottom. The cyclone itself, we hung from the ceiling with chains. Charlie was connecting up the power cables to the four wall sockets which had been installed in the meantime, with the cables in overhead conduits. We gave thought to where augers or chutes might be in the future.

We tested with a bag of Spelt which was harvested on the farm since my last visit. It should be noted that a combine harvester does not remove the grain from the ear of Spelt, as it does for other grains; it is stored ‘in the ear’. This is said to be one of the advantages of this very old type of grain, but it means that a purpose-made Spelt-peeler has to be used.

This worked as well as last time; we only had to adjust the air flow to the Kongskilde blower so that only chaff went to the cyclone and only peeled grain went into the bucket below. We marked the position of the air adjustment lever. We plan to make a quadrant by which this can be set accurately and finely adjusted as necessary according to the sample being worked. This is the ‘peeled’ grain, and we checked frequently the outflow of the cyclone for any grains. When we were happy, we fitted a bag to the cyclone outlet, using one of the quick-couplers for the pipes.

We could then turn our attention to the grain cleaner. We soon decided to turn it so that the clean grain outlet was closest to the Mill and the trash outlet, closest to the door. At the same time, we turned the Mill also, again so that if an auger or bucket elevator is used, the hopper is closest to the clean grain outlet of the cleaner. The bran outlet (if this is to be considered trash also and if the sifter is to be ever used) is at the far end. The bagged meal storage room, also rat-proofed, is through the door at the end. As soon as the electrical connection was made, we tested the grain from the peeler in the cleaner. A random setting of No7 on the speed adjustment dial of the shaker, and full flow on the blower which can be seen above, built into
this machine, produced a very satisfactory result first time… beginner’s luck? It is fascinating to watch this machine operating! The clean grain, and that only, climbs the shaking, inclined screen, while the trash jumps the slight ridge at the bottom end. At one stage clean grain was building up too much at the bottom end and occasional grains were jumping over into the trash. Reducing the grain flow from the hopper stopped this problem. There are swinging shut-offs above the bags at both ends and there’s considerable space above each, so that in operation, one can work with them closed and you have time to monitor the sample on each, before swinging the valve open and allowing the clean grain or husks to fall into the bag below.

Above is the cleaned grain, and below, the grain-less chaff. It may be possible to play with the air settings on the peeler to reduce the amount of chaff in the sample, but then there’s always the possibility of whole grains being blown with the chaff into the cyclone. Some of these husks look as though they could still contain grain, but almost every time on squeezing the husk, there was nothing in it!

We noticed an interesting phenomenon; at the lower end of the screen, after a considerable amount of grain had been processed, it seemed there were husks not willing to jump the ridge. When we stopped the machine, we discovered they were un-peeled grains still in the husks! We collected these and added them to the hopper of the peeler, to re-work with the next batch. For about the first 100mm of the screen, the sample is just un-peeled Spelt! It wouldn’t climb the screen with the clean grain, yet it wouldn’t jump the rim at the bottom! It could be that the peeler was being fed too fast at times to do a complete job.

We could then turn our attention to the Mill at last. I mentioned that we swung it around. We then checked rotations of the Mill as well as the rotary screen / sifter. We set the stones to just not touch, at which stage, the pointer showed slightly on the ‘rough’ side of the central dot. Clearly some kind of fine adjustment is needed here and we discussed various methods of modifying the pointer. It would also be handy to have ‘finer’ / ’coarser’ arrows on the tentering wheel.

Volker pressing the Mill button for the very first time! We had a bag over the meal-spout, fixed with a string, but soon realised we wanted the outlet open so we could monitor the fineness. The first thing I noticed was the rate of milling! The motor is 1.5kW; not easily affected by the grain flow. Volker was impressed by the fineness, which was slightly coarser than I mill wheat at Compagnes Drift, at least to the feel, but finer than his small electric stone mill he has been using at home, or our much smaller home stone Mill. His small Mill was brought up and a comparison was made. When we were happy with the fineness, we tested different feed rates; it didn’t make much difference to the quality at all!
We then decided to try out the sifter, if only to use as a grader or monitor for the fineness of the meal. Five screens came with the machine to be used in the three chambers, ranging from 250 to 1000. I presume those are microns of space between the filaments of the meshes, or the measurement of the actual maximum flour particles which can pass through.

We started with 450 closest to the Mill, then the 750 (?), then 1000. Most, in fact nearly all, came out of the 450 screen; a small amount tailing over into the bran chute at the end.

We quickly rearranged the screens so that the finest, 250, was first, then 355, then 450. We meant to weigh out the different proportions, but really, all we want to do, like my idea at Compagnes Drift, is to mill as finely as possible, and to produce whole grain meal with little sifting only if necessary; just to remove whole grains.

These were the respective quantities from under the spouts; 250 on the right, 355 in the middle and 450 on the left. In the small bag are the bran tailings.

We did a second batch, through all the processes, timing and weighing, in this case about 10kg (weighed after peeling). The peeling took about 4 minutes; the cleaning, 13 minutes. There is clearly scope for the peeler to be fed more slowly (provided the hopper outlet doesn’t block all the time). This may make it more able to deal with those few grains which were not peeled. The Mill was easily able to keep up with the cleaner; we were still experimenting with different settings on the twist-peg.

I had the opportunity to climb the rocky outcrop over the yard for this shot. On the extreme left is an ex-railway siding ‘yard shed’. On the hill, water storage and a 4kW wind generator. Working clockwise; the big shed for the Mill, Butchery and laboratory. The silo as well as the container next to it, houses Spelt. The homestead is in the trees at the far end, and the shade tunnels house infected Oak seedlings for the truffles.

I came away with some Spelt meal, olives, grown on the farm and ‘done’ by Mrs Angela Miros, annnnd….. a truffle or two! There were interesting, indescribable smells from the kitchen this evening, to say nothing of the tastes on the plates!

Two cross Beagle/Jack Russell dogs are being trained on the farm, to learn the essential job of pointing out the truffles. One has to check each tree, every day, for 6 weeks in season! We decided to test the reaction of our own young, undisciplined, dog….’Mum, that smells like old socks to me!’ Another very interesting day, completely different from the usual ‘Run of the Mill’!
Field to Loaf Day at Beaumont Wines 17th November 2012, by Andy Selfe.

The water-mill at Compagnes Drift has been fully restored for two years now and has been visited on Open Days, as well as on milling days in between, by countless people. About a year ago, it was suggested that we have a demonstration day, showing the production process of bread, all the way from the wheat field to a slice of bread. This would have to be a combined effort between the farm and the West Cape Vintage Tractor & Engine Club.

The idea was taken up and at the correct time, an open space on the farm was planted. This is a wine and fruit farm so the methods were rudimentary; they have no planting or spraying equipment designed for grainlands. The grain was planted by broadcast spreader and harrowed in after a weedkiller had been applied. Follow-up sprays were by hand, using hand-held under-tree booms. This led to the wheat being badly affected by ryegrass and other weeds.

Harvest Day had to be on a Saturday, and fit in with other events on the farm, notably two consecutive Open Weekends for Elgin Open Gardens at the beginning of November, so the following Saturday, the 17th was chosen. The Vintage Tractor & Engine Club supplied the old-fashioned harvesting implements. We had no access to a reaper-binder, so we decided to jump straight from sickles and scythes to an early self-propelled Combine Harvester; a Massey Harris Model 21, dating from 1941. This is owned by our Chairman, Eniel Viljoen and was bought several years ago. It had always been stored inside, but it had not been used for about 60 years. As always, preparation is left too late, and one under-estimates what has to be done. However, there’s nothing like an impending show to chase a project on!

Many late nights were spent getting it running! In the end, it was offloaded at the farm in the dark the night before the Show! There was also work to be done on a scythe, received in poor condition with its handle cut off.

The bread was to be made in a traditional wood fired oven which also had to be built for the occasion. Likewise, this was delayed while a builder was found, capable of building with reclaimed mud bricks and clay. It was only in the preceding week that fires could be made in the oven, to dry it out and warm it up.

The plan was that two vintage tractor-treks would converge on the farm just before the event, one from from Hemel-en-Aarde in the Hermanus area and another from Villiersdorp, via the Van der Stel Pass. In the event, political unrest prevented the latter, although many members did manage to attend.

The weather had been hot and dry for a week, but a millimetre or two was forecast for the Friday night. This did occur, and meant a later start in the land than planned. However, by 11.30, it was dry enough to start demonstrating with scythes and sickles.
Once we had explained the advances in agriculture leading on from the invention of the reaper-binder, followed by the earlier towed and self-propelled combines, it was time to take the 71-year-old M-H 21 on to the land to see what the threshing action could do with the wheat and ryegrass. The table was set high to catch just the heads and to avoid as much as possible of the weeds.

This is a ‘bagger’ machine, so the technique of sewing bags was demonstrated by Johnny Verreynne, starting with cutting the strings to the right length.

The ryegrass was so thick that the middle bags were filling up with this only! The grain in the left-hand bags will definitely need to be winnowed to remove other seeds.

From early morning, the staff from Worcester Museum (Kleinplasie) had been busy. They bake bread in traditional ovens all week and found our meal more oily than their own bought-in flour. Small wonder; ours still has the broken wheatgerm in it!

The fire was lit at around 8am. The Mill was also set in motion at this stage. By the time the people came back from the land, either in their own vehicles or in bins on trailers behind tractors, a welcome sight awaited them; freshly baked bread, other food, wine and ‘witblitz’, a distillate of liquor made from all kinds of fruit, peels and leaves was available and two bakenes of bread sold out quickly!

Straw-bales were laid out in the shade so visitors could make themselves comfortable.
By mid-afternoon it was time to pack up. Denis’ Farmall Regular was loaded on the trailer behind his much later Perkins-engined Red Power Tractor. Others travelled home in comfort and style!

The day was a great success; people came from as far afield as Riversdale and Cape Town. In fact some had visited the Mill during the two previous Open Gardens weekends and had returned to experience the Harvest! We plan to make this a regular feature at this time of the year, and hopefully add more interesting equipment to demonstrate, perhaps a reaper binder? One visitor has asked if we could repeat it in December!

**U.S.A.**

**Queensplaza millstones in new York City.**

New York’s Governor Edmund Andros encouraged parliament to pass the Bolting Act of 1678, which granted New York merchants not only a monopoly for milling grain, but to build ships to transport flour and meal to other colonies and England. Many historians credit this single legislative act as the foundation for the city’s fortune. New York became the third arm of the familiar triangular trade route across the Atlantic between the British Isles and the colonies. We find the Bolting Act symbolized in the seal of New York City, whose shield bears the sails of a windmill and the two flour barrels.

Jorissen’s Mill, built sometime between 1643 (the year of his patent) and 1654, was the first in western Queens. Although some sources state that stones arrived from Holland as ballast in a West Indies merchantman, scientific analysis can prove their true origin. They are supposed to be the oldest surviving European artifacts in the borough.

Burger Jorissen was a native of German Silesia. During the first five years of his grant he constructed a dam across Dutch Kills at a point now in the Sunnyside Rail Yards and created a millpond. He then erected a water-powered grist mill. It would have been about 100 feet to the south and east of his house, a location today in the Sunnyside Rail Yards. The gristmill became the center of the local road network.

Between 1698 and 1690, Burgon Bragaw bought Jorissen’s gristmill. His son, Isaac, built the house that stood next to mill until 1913. It would seem logical that this house was built on the site of Burger Jorissen’s house and incorporated parts of it.

This important crossroads at Dutch Kills supported a tavern and grocery store run by John Francis Ryerson, who grew up near the gristmill. The gristmill was called Ryerson’s Mill during the Revolution.

In 1831 the Payntar family bought the mill. The remains of the grist mill and the grass-grown mill pond were clearly visible down to 1861, when the Long Island Railroad drove tracks through the headwaters of Dutch Kills obliterating the mill. The following year, the main road opened between the New York Ferry and Long Island’s north shore (Northern Boulevard).
About this time the Payntar family placed two millstones in front of their home that was just feed from the highway. By 1870 the area was surveyed and streets were plotted but the area around the former mill was slow to develop. A 1900 photograph shows the Payntar House with the lazy meandering Dutch Kills in the foreground. Within fifteen years it would be gone and the area changed completely.

By 1910, the Queensboro Bridge, Sunnyside Railyards, and Queens Plaza, the hub of a network of elevated train lines that would connect Queens, Brooklyn, and Manhattan opened within feet of the Payntar House. The house was torn down in 1913 and the millstones were donated to New York City for Queens Plaza. A photograph from 1920 shows the millstones embedded in the traffic island at Queens Plaza North. Another photograph in 1940 shows them in excellent condition. The Greater Astoria Historical Society has regularly checked on the stones’ condition since the 1970s. They remained in good shape.

When businesses moved away from Queens Plaza in the 1990s, the millstones deteriorated rapidly. The center of one stone was lost and repaired with asphalt. The other was cracked. The city drew up plans to reconfigure Queens Plaza to make it more attractive to new development. On a routine inspection of the millstones by the Greater Astoria Historical Society they were discovered in 2010 hidden behind a chain-link fence of a construction site. They shared space with piles of gravel and dirt as well as construction equipment.

Community protests temporarily moved them out of the construction site. Their final placement back at Queens Plaza was lost in a haze of rumors until plans surfaced. They were to be returned to Queens Plaza - with holes drilled into their bases that were to anchor them onto pedestals. Their bases were to be smaller than the stones. The centers were to be filled in with grout.

The Greater Astoria Historical Society, as well as members of the local community, went on record opposing this placement. It was felt that this configuration would expose these remnants of a seventeenth century tide-mill to the elements as well as the capriciousness of New York’s urban street life. Queens Plaza is one of the most congested traffic arteries in New York with street traffic, elevated trains, subways, and a bus line that runs but a few feet from one of the stones. Tens of thousands of people go through the Plaza each day.

Due to their historical significance, and weathered fragile state from recent abuse in Queens Plaza, the historical society advocated that they be moved indoors to a museum-like setting – preferably within the community – where they would receive appropriate care and display in a suitable environment. The Greater Astoria Historical Society offered our space as a possible location and offered to find modern reproductions. The suggestions were ignored. Within a year of their return to Queens Plaza they have significant damage.

Our position is very simple:
1. This is an inappropriate space for both stones - their long term prospects are grim.
2. We have offered our society’s exhibit space as a safe haven so that the community can display, study, and protect them (we are all of 9 blocks from their location).
3. We have offered to find modern replicas for the outdoor space.

The Greater Astoria Historical Society strongly feels that they will be irreparably harmed if they stay at that location. We urgently ask the tide mill community to support our efforts to move these priceless pieces of New York City’s historic legacy to a place where they will be on display, studied, and made available to future generations for another three hundred years.

Copyright: © 2013 by the Greater Astoria Historical Society
All rights reserved without written permission
Greater Astoria Historical Society, Quinn Building – 4th Floor
35-20 Broadway, LIC, NY 11106, 718-278-0700 www.astorialic.org
astorialic@gmail.com
You might add for further reading: http://licmillstones.wordpress.com/
millstones in 1940 - they looked like this through the 1980s.

Queens Plaza 2008 - gives you the ideas of their location in the middle of busy traffic - the plaza is reconfigured lately but it still funnels in 10,000 commuters by car and subway each day.

millstone 1-2009 - asphalt as a repair.

Millstones during construction - they are in the box the millstones within the construction site before the community outcry moved them.

Dutch Kills History Lesson - sent by a Dutch Kills resident last summer - adjacent to the millstone.

This is the plan for mounting the millstones - note how they stick out over the pedestal.

Photos late Feb. to March 1, 2013.
Bread for the people: The archaeology of Mills and milling.
Edited by David Williams and David Peacock, Southampton University Archaeology Monographs no 3 (£50 plus p&p obtained from Dr. D.F. Williams, Department of Archaeology, Humanities, University of Southampton, Southampton, Hampshire SO17 1BJ, England: dfw@soton.ac.uk).
This volume contains a series of papers that resulted from the proceedings of a conference which was held between the 4th and 7th November 2009 at the British School at Rome, via Gramsci. The broad themes of the Rome conference encompassed the study of quarries of all periods, production and trade in querns and millstones; archaeometrical studies; ethnographic studies and ore processing. There are 33 papers, covering a range of periods from the Neolithic to the recent, and a range of countries, including southern and northern Europe, Scandinavia, Africa and America. There are studies on saddle querns, rotary querns, windmills and watermills. In fact, something for anyone who is interested in the process of turning cereals into flour [and the grinding of other things as well].

CONTENTS

Keynote
A. BELMONT: Why dig a millstone quarry? The case of Claix in the South West of France (5th-19th centuries.).

Ethnography

Pre-Roman

Roman

Roman

Medieval

Post-Medieval


T. ANDERSON and T. SCARROW: Millstone quarries from the Iberian volcanic regions of Cabo de Gata and Campo de Calatrava.

T. ANDERSON and J. H. SCARROW: Millstone quarries in southern Spain: preliminary pinpointing of provenance and production: exploiting the

A MESSAGE FROM THE E-NEWS TEAM

Dear all, as you read this; we are preparing the midterm trip in Greece. We understand this will be a different type of mill trip for the TIMS members. The issue is, Greece is a mountainous and island country with fragmented landscape. So the mills, one can find, mainly on mountaintops or in deep ravines. So you must be prepared to meet the challenge walking up and down hill, following paths in ravines or take a boat and, to your unexpected surprise, even swim to see them. Off course as Greece is famous, we will see a lot of ruins left at least by their owners 50 years ago. We will give you more information in our next issue before the trip. So brace your selves for a different experience! You can also have a look here, to watch a video with some of the mills in the island of Andros.

George Speis
gspeis11@otenet.gr

Katerina Toutouza
ktoutouza@hotmail.com

(We have used our best efforts in collecting and preparing the information published herein. However, we do not assume, and hereby disclaim, any and all liability for any loss or damage caused by errors or omissions, whether such errors or omissions resulted from negligence, accident, or other causes.)