

FRANCE – CANAL DU MIDI

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Fonserannes water slope to be dismantled?

After thirty years, France's second water slope, built in 1981-83 to bypass the 6-lock* staircase at Fonserannes, may finally be dismantled. The entire structure, its concrete flume and even its footbridge, could disappear for ever from the Canal du Midi's protected landscape.

THE DECISION TO SCRAP the water slope has been adopted by the grouping of local authorities for the Béziers area. In contrast with earlier schemes devised for the site over the last 30 years, typically featuring a boat harbour and extensive visitor facilities, the new scheme is entirely focused on improving the landscape and pedestrian movements through the site, to enhance Riquet's locks.

Facilities are designed to be discreet, so that the spending potential of more than 400 000 annual visitors will benefit the entire area, instead of being exploited insensitively on the site. The project was the subject of a presentation at the recent Venice conference on Waterscapes and Historic Canals as Cultural Heritage, by Prof Dominique Crozat of Montpellier University (see p.6).

A common feature of all earlier schemes was keeping the water slope, despite the evidence that its restoration and continued operation were practically impossible to justify.

The site as it was before the water slope was built. The picture shows the six locks now used by boats. The seventh chamber had its sides raised to the level required by the Orb aqueduct in 1856 and is in effect a turning basin, while the eighth is unusable and non-restorable.



The rusting traction unit of the Fonserannes water slope was an improbable addition to the historic site even when it was opened. Its justification was the prospect of traffic in 38m barges, that never materialised.

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The principle of the water slope, invented by Prof Jean Aubert and first tested at Montech in 1974, was always of marginal value as a solution for high-capacity waterways, because of its very high energy costs, and its vulnerability to lack of adherence of the traction unit to the concrete slope; this was highlighted dramatically when the Fonserannes slope unit failed shortly after it was opened, and slid down its ramp.

The owner VNF had envisaged at least moving the traction unit to the bottom of the slope, for safety, but is not alone in deciding how to develop the site, since it depends on

co-funding by the regions and local authorities.

The sad demise of the Fonserannes structure could give new impetus to projected restoration of the Montech water slope (visited by IWI's tour in September 2013 and mentioned in our February 2015 Newsletter), as the only surviving example of this type of boat lift. ■

* the most-frequently used figure of seven locks is misleading (see photo caption, left). The frequent reference to nine locks is historically accurate, taking into account the Notre Dame lock down to the river Orb. So 8 + 1 became 6 + 1 level + 2 abandoned locks.

EU - SEINE-NORD EUROPE CANAL

Local authorities ready to invest in new canal

LOCAL AUTHORITIES ARE STEPPING INTO the ring to bring forward implementation of the Seine-Nord Europe canal project. The MP and former mayor of Maubeuge Rémi Pauvros has been working hard as an ambassador for the project, expected to be funded to 40% by the EU, and has contributed to ensuring that nearly 10% of the €4.2 billion cost of the new canal will be covered by the regions and *départements*.

The 'reconfigured' project has a summit level set at 85.60m, 16.90m lower than in the original designs. Revised planning permission is expected to be obtained in 2015 for this new configuration, after a further public enquiry. The issues raised are relatively minor, and are expected to be resolved satisfactorily.

VNF's project management team, in its Division of European Links and Intermodality, is now working with its Flemish and Walloon partners on a raft of investments that have

been submitted to the European Commission for funding in the short term under the TEN-T programme, also referred to by the name of the Inland Navigation Executive Agency (INEA).

These include three separate projects on the Seine in France, the completion of upgrading of the Oise to Class Vb standards, raising of bridges on the Dunkirk-Scheldt waterway, the doubling of Evergem lock on the Ghent ring canal and other works on the nearby Lys/Leie in Flanders, the cross-border project to restore the Pommerœul-Condé canal, and two other projects in Wallonia: studies and reconstruction work at the three locks of the Brussels-Charleroi Canal down from the Hainaut summit level to Charleroi, and works on two weirs on the Upper Scheldt. The 'bundled' 'Class Vb' development works on the network are coordinated by the European Economic Interest Grouping Seine-Scheldt. ■

Council meeting, 13 May

The IWI spring Council meeting was held by teleconference on May 13, 2015. Highlights of the meeting:

A small committee to revitalize our website has been reactivated. Modifications to the site are continuing to improve its organization and content. ▶ Although unsuccessful to date, the **Panama Canal** will be contacted once again to determine if there is interest in hosting a World Canals Conference. ▶ **Waterways Ireland** will be contacted to seek an update on the canal use planning initiative for which IWI provided comments during the public consultation phase. ▶ Some 57 previous members were contacted by post to remind them to renew their membership. Discussion focused on **improving communications** with members through a variety of media and simplifying the membership renewal or joining financial transaction. ▶ With regard to growing our membership, a number of strategies were proposed. Our lure **flyer** will be revised and printed and distributed at some boat show-type events. Council members will provide further suggestions which will be summarized into a plan for implementation in the near term. ▶ An update on preparations for **WCC2015** in Ghent was presented. The Annual General Meeting for IWI will be held on Sunday September 6 at the conference. Arrangements to be finalized. ▶ Preparations for **WCC2016 in Inverness**, Scotland are well underway. The venue is confirmed and the conference website is under construction. Similarly, initial planning is underway for **WCC2017** to be held on the Erie Canal at Syracuse, New York. ▶ A 'rolling' working group has been formed of **past, present and future hosts** of the World Canals Conference to discuss best practices, lessons learned, to promote wider conversations around the sector globally and function as a vehicle for supporting future applications and promoting consistency across all conferences. In response to the request, IWI will provide a representative to the group. ▶ It has been proposed that IWI host an initial meeting of senior staff of the **six canal World Heritage Sites** during the WCC2015 at Ghent, but separate from the conference. The meeting will be by invitation.

Members Edith and Snorre Dag Brønder visited China's Grand Canal in March. Read the first part of their account on p.8. The dragon sculpture is beside the old line of the canal where the Little Wen River (a 72 km long feeder) entered the summit level. Note the walkway along the old canal bank.



The idea was unanimously supported by Council. Planning will start immediately. ▶ The suggestion to organize an IWI **study visit to the Iron Gate** area in 2016 was supported. Initial planning will start in the next few months. ▶ The next meeting of Council will be by teleconference in August prior to WCC2015.

World heritage canals to unite?

As discussed during our Council meeting, IWI has invited senior managers of canal World Heritage Sites to a proposed initial get-together of representatives of this category of UNESCO-listed sites during the World Canals Conference in Ghent, on Tuesday September 8, 2015. The idea stems from discussions during our recent involvement with the designation process for the Grand Canal in China. It was felt that the managers of the five established canal World Heritage Sites*, plus the newest site, the Grand Canal, would benefit from shared information and experience, and that IWI is well-positioned to convene such a landmark meeting. As part of IWI's involvement in the process for China's Grand Canal following the City of Yangzhou's invitation, it drew upon the knowledge of senior managers of two existing canal World Heritage Sites to assist. In the future, representatives of newly designated canals would of course be invited to the distinguished group.

* The Canal du Midi (France), the Canal du Centre and its hydraulic boat lifts (Belgium), the Rideau Canal (Canada), the Pontcysyllte aqueduct and Llangollen Canal (Wales) and the canal district of Amsterdam (Netherlands).

Work continues to push ICC reform

Mike Miller is continuing the background work, coordinated with DBA, with the aim of lifting restrictions applying to craft over 15 m.

Even though most ICCs are issued for craft up to 24m and 80t. German authorities only recognise this for craft up to 15m. DBA The Barge Association have taken up the challenge to get this changed with the help of the European Boating Association (EBA). The present plan is to try to persuade Germany to increase the limit to 20m. While this would not be ideal it would be a step in the right direction. Part of the problem lies with the fact that the German 'sportsboat' licensing is for craft up to 15m. This has been the case for many years. Up to a few years ago this ruling appears to have been ignored for visiting craft, but this is sadly no longer the case.

Roger Lorenz Trust

A trust has been set up in the name of our late member Roger Lorenz, narrow boat enthusiast for over 40 years until he sadly passed away in February 2014. The trust, launched at the Stratford-upon-Avon River Festival in July 2014, will offer young adults up to 30 the opportunity to learn traditional boating skills. Our condolences to Roger's wife Stef, and best wishes to the trust. ■

Welcome to new members

Corporate

The Canals Group	Canada
Centro Internazionale Civiltà dell'Acqua	Italy
Netzwerk Deutsche Wasserwege	Germany
Unser Finowkanal e.V.	Germany

Individual

Brett Costello	USA
Di Harris	UK
Jean-Pierre Huyge	Belgium
Bob Naylor	UK
James Somerville	USA



Northern France is seeing intensive use of its main waterways, contrasting with the continuing misfortunes of smaller navigations like the Scarpe and upper Somme. Arriving in Valenciennes for a meeting on the evening of 8 June, I saw more barges moving on the Escaut than I'd ever seen on French waterways! DEM

IWI Newsletter is a digital document distributed to members by e-mail every few months.

A print-out is available on request for members who do not have e-mail. The magazine **World Wide Waterways** continues to appear separately. Editor : David Edwards-May

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Please note that comments and opinions expressed in IWI's publications are those of the authors, named or otherwise, and do not necessarily reflect the position of the Association as a whole.

President's notes

I AM OFTEN ASKED what are the biggest challenges for canals and waterways these days, usually by folks who are not necessarily very knowledgeable about canals, but have a passing interest or know of my involvement with IWI.

There are many challenges for canals today as for many other organizations and activities as the demographics, usage and societies change. Organizations are questioning their mandates, *raison d'être* and how they go about their business. For canals probably the biggest single concern is the change in the number of boaters, the style of boats and the way they are being used. This can directly impact on numbers of users, and boats transiting a canal system or waterway. Indirectly, it can impact on the many communities and businesses that derive their income from boaters.

Previous to last year's WCC we saw and heard from some canals of isolated concerns about their transiting boating numbers declining, whether direct owners or hire boats. Some of this was put down to cost-cutting and revenue initiatives such as reducing the season, hours of operation and raising of fees. It certainly can be argued that this hasn't helped the situation, however, the economy can't be blamed for the whole trend of reduced transiting through locks or a canal system.

At last year's conference in Milan it really became evident to me that this was not an isolated situation but a growing trend. We heard how some canal organizations are trying to deal with the situation, seeking to attract a broader audience and more varied uses so as to attract more visitors: increasing the use and experience on towpaths, doing studies to attract more diverse visitors to the canal sites or corridors. In discussions with canal operators we are hearing about other activities taking place to attract new users and retain those who use the canals.

The number of boats being built and sold has generally seen steady increases year over year. The mainstay of boating for years was the baby-boomer males (1946-1964) who more or less through their interests and buying power determined the types of vessels and equipment that were being bought and how they were used. However, this year it is predicted that the baby-boomers will be surpassed as the largest living generation by the Millennial generation (born approximately between 1981 and 1998). This factor is one explanation for what is happening, but there are also phenomena related to immigration, social media and the different interests and expectations of younger generations.

For canals these statistics are only part of the story. All factors need to be studied: it is not only the boater changes that need to be addressed, it is also how to get people interested again in boating. The whole boating spectrum needs to come together so the industry can grow: boat manufacturers, marinas, recreational organizations, communities, canal managers,...

How can we renew interest in boating?

They could make opportunities available for people to get on the water, through the use of rental or hire fleets that are suitable for the marketplace, easy to operate, clean, well-maintained and affordable. The availability of overnight tour boats and hotel barges are other ways. Promote these many boating opportunities as a wonderful and different vacation. Focus products and services to under represented groups of society who may not have been boaters in the past but who now have disposable income and could be

interested. Manufacture and market smaller boats such as day cruisers, which may not have such large mark-ups, but make it easier for people to step into the market. These are only a few ideas, but if we want to see canals retain and grow their boater numbers they will need industry and community partners and be adaptive to the changing conditions many organizations find themselves in today. We need to continue the discussion.

Speaking of changes I would like to add a few words to Roger Squires eloquent words (below) about Mike Reid and his career with IWI. I say career because for Mike it turned into a second career starting in 1994. Mike always treated his role of Treasurer with soft words but firm direction, keeping our organization in good financial shape. As President, I looked to Mike for financial advice often and he was always there to assist and help. I appreciated his devotion and respected his advice. So, Mike on behalf of IWI Council, our members and me thank you for everything and best wishes on your second or third retirement.

DAVE BALLINGER, JUNE 2015

Tribute to co-founder Mike Reid

MIKE REID has been IWI's treasurer since the beginning of the organization in 1992, two years before it was formally founded in 1994. Mike is a qualified accountant and after retiring, continued to assist voluntary bodies such as IWI by keeping their books in order and submitting the necessary Government returns.

Ron Oakley, Mike Reid and I were long-term members of the IWA. Ron, with his wife Joan, organized continental waterway tours, through the local Bristol IWA Branch, of which Ron was Chairman. These tours were very successful.

Ron believed that instead of the British IWA being in the lead of this international outreach and educational work, a new international body, IWI, should be formed to spearhead the promotional work. That proposal was agreed by the IWA Trustees, and they confirmed that the IWA International Committee should be converted into a stand-alone international body, of which the IWA itself would become a founding member. Ron, Mike, David Stevenson and I were on the steering committee. To facilitate this transition, the IWA also agreed that the profits from the former IWA International Committee European tours, run by Ron Oakley, could be used provide the seedcorn for the new organization. Thus the IWI was born. Ron Oakley became its first chairman and Mike Reid its first Treasurer.



Mike was also a boat owner (a quarter share) and travelled the canals of Europe. When Ron retired he had a boat built, *Heritage*, to explore continental waterways. To raise the capital, four shares were issued, Ron and Joan had one each. Mike Reid and David Stevenson both purchased a share each. This enabled each of them, individually or collectively, to use the boat for a quarter of the year. They formed the management committee and defrayed the running costs.

IWI went from strength to strength under Ron's leadership. Mike Reid, in his meticulous way, managed the finances. To raise funds for IWI, a separate trading company, Internat Ltd, was formed. Ron, Mike and I became directors, with Mike both running the UK sales operation and dealing with all the accounting matters. Sadly, when Mike's first wife died, he sold his share of *Heritage*. However, that did not stop him from his other tasks for IWI, especially dealing with its finances and the sales operation.

Recently, Mike felt that the time was right to hand over the reins of treasurer to Norman Smith.

IWI owes a great debt to Mike Reid for keeping its finances in good order. We should all thank him for the stalwart work he has unstintingly undertaken for many years. His calm clear commitment and coordination will be greatly missed. ■

ROGER SQUIRES

WCC GHENT –7-10 September 2015 – List of papers by country

BELGIUM

The importance of the Ghent Waterways in the past and future	Geert Van Doorne, hon. manager	City of Ghent
The Seine-Scheldt project	Eng. Frank Serpentier	Waterwegen & Zeekanaal NV
Unique location of the port of Ghent attracts not only thousands of inland vessels but also hundreds of inland cruises	Daan Schalck, CEO	Port of Ghent
The river Lys, international cooperation in Belgium and France	Katrien Six, regional manager	Toerisme Leiestreek
The Central Commission for navigation on the Rhine (CCNR)	Dr. Yvo Peeters, honorary head	Flemish Foreign Policy Unit
Inland waterways development in Wallonia within a European perspective	Eng. Yvon Loyaerts general manager	Service Public de Wallonie
Optimizing navigation areas to increasing ship dimensions	Dr. Eng. Maxim Candries	University of Ghent
The economic perspective of the waterways in Flanders	Christine Veys	Waterwegen en Zeekanaal NV
The Lieve, a 13th century canal from Ghent to the North Sea	Frank Gelaude	University of Antwerp
The inundation of the Yser	Stephen Lodewyck	West-Flemish tourist board, Westtoer
Sustainable water management for a sustainable future	Prof. Dr. Eng. Stefan Van Damme	University of Antwerp
The impact of climate change on water management	Prof. Dr. Patrick Willems	University of Leuven
Waterways and tourism in Flanders Bruno Paternoster, staff member	Prof. Dr. Jan van den Berg Tourism Flanders	University of Leuven
New building of the slope at the sluice complex Ganzepoot in Nieuwpoort	Eng. Niels Vanmassenhove	Agentschap Maritieme Dienstverlening en Kust
Blue Hub Rupel: an innovative and sustainable tourism challenge	Sabine Denissen, Leisure Dept.	Province of Antwerp
The storm surge barrier of Nieuwpoort	Eng. Isabelle D'Hooghe	Agentschap Maritieme Dienstverlening en Kust
Conservation of floating heritage in Flanders	Maarten Van Dijck nautical heritage expert	Flemish Authorities

CANADA

Innovation at the service of conservation : ensuring the sustainability of Parks Canada's historic canals by revenue generation	Luc-André Mercier, director	Quebec Waterways
Towards an improved business relationship – Waterpower on Parks Canada Canals	Darlene Upton ex. Director Waterways	Parks Canada

CHINA (AND PORTUGAL)

Discovering the identity of oriental cultural landscape – from ancient maps of Grand Canal China	Joaquin Sabaté & Wu Huan	China Grand Canal
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FRANCE

Plan 'Blue' of the MEL – project for requalification and reconnection of the Croix branch in Croix, Wasquehal and Villeneuve d'Ascq	Géraldine Dzierszinski-Lenglen	Métropole Européenne de Lille (MEL)
Burgundy-France : an innovative governance to boost the touristic development of the waterways	Sylvie Martin, vice president	Regional Council of Burgundy
Eurometropolitan Blue Space, the city for the 21st century	Paola Vigano, architecte/urbaniste	Lille Métropole

GERMANY

The potential for conflict between wildlife conservation and waterway usage	Angela Zábojník	City of Leipzig
Germany's new Inland Waterway Network bridging East and West	Prof. Hartmut Ginnow-Merkert	Unser Finowkanal e.V., Netzwerk Deutsche Wasserwege

HUNGARY

WSG technology at the service of waterways and hydrotechnical engineering	Dr. Janos Major	University of Debrecen
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IRELAND

The Shannon Blueway – bringing prosperity to Ireland's inland waterways	Norma Herron	Waterways Ireland
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ITALY

Can the Lombardy inland waterways attract tourism and economic development?	Prof. Edo Brichetti	IWI Italy
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NETHERLANDS

Why and how to keep small canal waters alive , based on examples in the Netherlands. And how to reuse them	Jan Pieter Jansse WCC 2011 co-organizer	Golfslag Advies & Projecten Historisch Water
The port of Terneuzen in relation to the port of Ghent	Jan Lonink, Mayor	City of Terneuzen

SERBIA

Iron Gates – Djerdap / Danube through history	Eng. Krsta Paskovic	Blue Links Europe expert, TICCIH
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SOUTH KOREA

A study on revitalization of coastal shipping using the Gyeong-in Ara Waterway	Won-Cheol Park & Choong-Hyo Lee	Gyeong-in Ara Waterway Korea Water Resources Corp.
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UK

Globalising the Kelpies	Richard Millar	Scottish Canals
London – a case study	Dr. Roger Squires	IWI UK

USA

A Renewed Era in Development along the Erie Canal	Brett Costello, CEO	Corn Hill Navigation, Rochester, New York
Teaching Towpaths & Tugboats : using New York's canals to engage and inspire youth	Duncan Hay	Erie Canalway National Heritage Corridor & NYS Canal Corporation

INTERNATIONAL

St Lawrence Seaway design award

The St Lawrence Seaway has received a prestigious award from the OECD for developing the world's first hands-free mooring (HFM) system for ships transiting its locks. The 'promising innovation in transport' award is offered by the International Transport Forum, an intergovernmental organization for the transport sector within the OECD, with 54 member countries. It was presented to the Management Corporation (SLSMC) on May 28 in Leipzig, Germany, during the 2015 Summit of Transport Ministers.

The seaway's 15 locks lift ships a total of 168 m (551 ft) as they transit from Montreal to Lake Erie. The HFM system, produced by supplier Cavotec, employs vacuum pads mounted on vertical rails to secure the ship during the lockage process, tracking the ship as it is raised or lowered, while keeping it at a fixed distance from the lock wall, with benefits in operating efficiency and safety. This system will replace the traditional practice of manually securing ships in locks with mooring lines, which is time-consuming and labour-intensive. The system was the subject of a presentation by the SLSMC's then president Richard Corfe at the WCC in St. Catharines in 2004. It should be in place at all the seaway's high-lift locks by 2018.

EU

Oder waterway to Ostrava airport hub?

Regional planning authorities in Poland and the Czech Republic are actively promoting creation of a high-capacity waterway along the Oder to a new multimodal transport hub at Ostrava Mošnov airport. As shown in the map, this would provide the first section of the Danube-Oder water corridor. The project was debated at the Oder Forum on May 20, attended by the Czech Deputy Minister of the Environment Vladimír Mana, representatives of the Czech and Polish ministries of transport, the Czech government plenipotentiary for the Moravia-Selezia Region, and regional industries.



Slovak PM supports DOE...

Slovak Prime Minister Robert Fico declared on 13 May that he supported the Czech government's plan to build the water corridors to link the Elbe, Oder and Danube rivers. He called for the implementation of a feasibility study.

Oder-Váh link abandoned by CZ

The Czech Government has formally abandoned its section of the Oder-Váh link, which was promoted by Slovakia as an alternative to the Danube-Oder water corridor. The reserved land is to be released for other uses.

SNE promoted at TEN-T days in Riga

Nicolas Bour, VNF's director of European waterway connections and innovation, will promote the SNE project at the TEN-T days, a conference organised for coordination of Europe's priority transport corridors in Riga, Latvia, on June 22-23. The conference, chaired by the European Commissioner for Transport Violeta Bulc, also includes a special session on the Danube corridor.

CANADA

Major investment in Rideau Canal

The Minister responsible for Parks Canada announced on June 1, 2015, new infrastructure investments totalling \$39.4 million on the Rideau Canal National Historic Site.

Together with other recently announced infrastructure investments at Black Rapids Lock 13 and Poonamalie Dam, Parks Canada will invest a total of \$46.0 million in important infrastructure repairs and improvements on the Rideau Canal in the next five years.

The Government of Canada is supporting infrastructure work in national historic sites, national parks and national marine conservation areas. This will ensure that these cherished places are protected and secured for the future while also creating and projecting jobs and opportunities.

Also on the Rideau, Parks Canada has introduced 'Otentik' tents and showers at Beveridges Lock near Perth. They have also introduced 2 for 1 lockage permits for boaters, with the establishment of a business development unit for the Rideau Canal and Trent-Severn Waterway. These initiatives are to help bring more people and boaters to use and enjoy the canals and their water and land-based facilities.

This is certainly very good news for the canals, and IWI congratulates Parks Canada for this very welcome news and the fact that it includes the Rideau Canal National Historic Site designated as a UNESCO World Heritage Site.

CZECH REPUBLIC

Work starts on last Vltava lock

Work has started on the last lock remaining to be built on the Upper Vltava to complete the waterway through to České Budějovice.

Leading personalities and engineers took part in the ceremony laying the foundation stone for Hněvkovice lock on 25 May. Development of the waterway will be limited until the inclined planes can be built respectively at Slapy and Orlik. Also critical for welcoming boats longer than 15 m from Germany and the rest of Europe would be a loosening of German regulations for recreational craft.

Laying the foundation stone at Hněvkovice Lock



New Baťa Canal locks to go ahead

Construction of Rohatec lock at the downstream end of the Baťa Canal and Bělov lock at the upstream end is now expected to go ahead in 2016 or 2017 after years of planning delays. When completed the waterway will be open from Hodonín to the UNESCO world heritage town of Kroměříž.

FRANCE

Batobus success in Paris

The Paris waterbus service has proved a success with tourists as well as residents, with annual traffic nearing 2 million passengers. The striking all-glass-topped catamaran boats were launched in 1989. The contract for operating the service was given to Bateaux Parisiens, and renewed annually until 1996. The concession was then extended for 13 seasons, under the new name *Batobus*. The number of stops was increased from six to eight, and now (in season) nine. The service has been integrated since 2005 into the public transport system under the Île de France regional transport authority STIF.

Montech water slope cost doubled

When we visited the Montech water slope in September 2013, there was reasonable optimism – expressed by the mayor and local MP – that the restoration project could go ahead in the near future. Unfortunately, a detailed engineering study commissioned by VNF has put the price tag at more than €4 million, almost double the estimated budget. The project is now again delayed.

GERMANY

Eberswalde declaration at Reichstag

A delegation of 15 advocates of 'minor waterways' joined the Finow Canal's Hartmut Ginnow-Merkert in Berlin on 21 May, to present the Eberswalde *Erklärung* (statement)

to members of the German parliament. The ceremonial handover, organised by German MP for the Finow Canal constituency Stephan Zierke, took place in front of the Reichstag building in Berlin. The delegation was met by 26 MPs; the waterways represented in the new Network Inland Waterways Germany were shown in our February Newsletter. Bremen consultant Helmut Berends will be the acting speaker/coordinator for the Network which plans to hold an official founding assembly at Nordhorn (on the Ems 'left-bank' canal system) in November 2015.

Boat rally on Saale-Elster Canal

The Saale-Elster Kanal Förderverein successfully organised an 'exhibition' rally of trailboats on the 11 km watered section of the canal on Whitsunday 24 May. The event was organised with the collaboration of the boat hire firm Motorbootvermietung-Leipzig, founded by Stephan Lademann, who is to be congratulated on his bold initiative of setting up business at the Leipzig end of this currently isolated stretch of canal. The 'fun' cruise with 20 boats taking part was concluded by a canalside barbecue. The short connection from the Lindauer Hafen to this length of canal is the next stage in the SEK's restoration campaign.

'The canal suddenly fuller with boats than it has ever been', was the title in the local newspaper



INDIA India to invest more in waterways

The new government in New Delhi seems to be serious about rivers and waterways in India. The new port of Haldia 60 km downstream from Kolkata near the mouth of the Hooghly (Ganges) is being proposed as the hub of inland waterways transport. The Orissa Coast Canal which has been unused for a long time connects the port of Haldia with the port in Orissa near the mouth of the Mahanadi. With the new port in Haldia, there is great potential for the shipment of industrial raw materials and products using this canal.

Another example is the memorandum of understanding signed on March 19, 2015 between the Inland Waterways Authority of India (IWAI) and the Dedicated Freight Corridor Corporation of India (DFCCIL) for the creation of an intermodal hub with rail connection at Varanasi and some other locations on the national waterways. The MoU signing was

The conference centre at Rosolina Mare in the Po delta contains an 'immersive video installation' interpreting 'Po memories', to be opened on 19 June. The 'immersion' is built around the simultaneous screening of three classic Italian films set in the delta, which has received UNESCO's 'Man and Biosphere' distinction.
CENTRO INT.E CIVILTÀ DELL'ACQUA



witnessed by the Minister of Shipping and Road Transport & Highways Shri Nitin Gadkari and Minister of Railways Shri Suresh Prabhu. This joint development of a state-of-the-art logistics hub at Varanasi and other places promises to bring together inland waterways, rail and road connections, providing seamless, efficient and cost-effective cargo movement.

IWAI and DFCCIL will also facilitate business development in the interior of the country through its feeder routes. Varanasi becoming a successful multimodal hub will then stimulate the development of similar facilities at other strategic locations on the national waterways and in the dedicated freight corridors. The dedicated freight corridors are expected to be a 'game changer'.

Finally, as we have seen in other cities worldwide, the Kolkata canal system has a significant role to play in regeneration of the metropolis. One highly publicized and positive program of the Modi government is cleaning up the Ganga River, potentially making this a much more important and relevant canal system and a key part of the city's regeneration.

So all of these initiatives underline the importance the Government of India attaches to its waterways and their future.

Waterways have an important role in today's world of intermodal transportation. They can boost economic development of the country in a much more efficient and cost-effective manner in the movement of goods and materials, while contributing over time to reducing the environmental impact of transport.

NETHERLANDS Larger lock for IJsselmeer access

The EU is funding studies on improving access to the Dutch inland waterway network. The TEN-T Programme will co-fund with over €1 million a study on deepening the waterways and constructing a new lock on Lake IJssel. The project is to improve the connection between the North Sea and the Dutch inland waterway network, opening it up to larger vessels. The depth of Lake IJssel (IJsselmeer) is insufficient for container vessels and coasters, while the Lorentz Locks controlling access to the lake through the Afsluitdijk are too small (130 by 12 m) to allow large ships to pass through. A

bigger lock and deeper channel would improve connections between the North Sea and the northern Dutch waterways, in particular the inland ports of Kampen, Zwolle and Meppel. Better connections should in turn lead to an increase in intermodal transport and a larger share of more sustainable transport modes. The study will look into construction of a new lock at the current location, deepening of the IJsselmeer channel, and creation of a fish migration river. The project in 2016 consists of design, an environmental impact analysis, a fish migration river study, permits and a strategic procurement plan, and project management. The project was selected for EU funding under the TEN-T annual call for 2013, priority 'inland waterways'. Its implementation will be monitored by the European Commission's Innovation and Networks Executive Agency.

SERBIA Innovative development on Sava

Small floating holiday huts are combined with standard pontoon moorings at this original facility recently opened on the river Sava south-west of Belgrade. Congratulations are due to the designers of this scheme, which offers boatowners the chance to bring more people on board for day cruises, by putting them up in these huts. The facility is located at the village of Boljevci, at KP 35 on the Sava. It is expected to be highly popular, as the greater Belgrade area concentrates a significant percentage of boatowners in Serbia. KRSTA

PASKOVIC



Venice conference explores new ground

I WAS INVITED to the second conference organised by the International Centre for the Water Civilisation on May 14-15 in Venice. The event was spectacular for the venue: the Franchetti Palace is a former bank overlooking the Grand Canal beside the Accademia bridge. But it was also a source of valuable new insights into waterways as cultural heritage, touching on some waterways previously unknown to us, and on subjects ranging from the familiar to the totally unheard of.

The centre, directed by Eriberto Eulisse, set out to develop a line of research related to **European Waterways as cultural heritage**. A first workshop was held in Venice and Battaglia Terme in October 2012, organised by UNESCO Venice Office, Civiltà dell'Acqua International Centre and the Inland Navigation Museum of Battaglia Terme. This preliminary debate covered issues concerning Europe's historic canals and their related heritage as an opportunity to promote 'responsible' tourism.

The 2015 event focused on more detailed aspects of waterscapes, interpretation and cultural tourism along historic canals as well as on the management of waterfronts. The conference was organized by the University of Venice Ca' Foscari and Civiltà dell'Acqua in cooperation with UNESCO Venice Office and the Istituto Veneto di Scienze, Lettere ed Arti.

The first keynote speaker (and head of panel) was **Stephen Daniels**, of the University of Nottingham, UK, who suggested that 'waterscapes are everywhere, part of a new amphibious conceptual geography, across a range of disciplines, from 'waterlands' to 'liquid landscapes'; as such, they are attracting an increas-

ingly broad range of interest groups (academics, citizens, water rights, water power, tourism,...). **Geoffrey Gooch**, of the University of Dundee, UK, explored how this interest gives rise to sometimes conflicting and competing uses of waterscapes and canals, which should be directly managed by communities of citizens on a participative basis.



The conference took place in the Palazzo Franchetti, beside the Accademia bridge on the Grand Canal.

Bruce Prideaux, of James Cook University, AU, analysed how man-made canals have morphed 'from an old form of transport into a new form of heritage tourism experience' that should be explored not only as a 'new niche tourism product' but through a 'slow, conscious and sustainable appropriation by society as a whole'. **Erik Swyngedouw**, of the University of Manchester, UK, developed the theme of his new book on the strategic importance of water resources, through his case study of 20th century dam and hydropower development throughout Spain. **Edo Bricchetti** represented IWI in presenting his summary during the concluding session on Friday 15th. An excursion was organised in the lagoon on Saturday 16th. ■

Cruising to sites of World War I



THE FLANDERS FIELDS CIRCULAR CRUISE will be the ideal way to pay tribute to those who lost their lives during the Great War. Peter Linssen suggests an itinerary that will have special appeal during the years of commemoration of the intense battles during WWI that left such deep scars in the landscape. The circular cruise offers – in a nutshell – nature, peace, culture, history and gastronomic delights. It could start at the BBoat hire base (part of the Linssen network) at Ypres. The cruise will be featured in our next magazine. It could also start at BBoat's second base at Kuurne near Kortrijk/Courtrai, adding the loop via Ghent and Bruges, but to do justice to the Westhoek region of Flanders, this should be a two-week cruise.

After taking part in the wcc in Ghent, it offered tours and seeing and learning about the different sites and stories through the pre- and post-conference tours (<http://www.wccgent2015.com/en/>

pre-post-tours/) perhaps delegates, their families and friends would like to experience these sites from another perspective as described by Peter. ■



Tilting lock concept

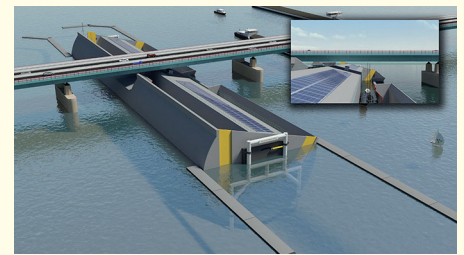
Dutch engineers at Royal Haskoning DHV have come up with a completely new idea for a drop lock, avoiding the need for pumping out water as is the case at Dalmuir drop lock on the Forth and Clyde Canal near Glasgow.

The civil engineering in this case is a huge challenge, but the benefits of not having to operate lift-bridges on very busy roads, while passing yachts with masts up to 8 m high, are thought to make the investment economically viable. The mean water level in the lock is 4 m below the normal water level.

The pivoting central mass (the 'lock') needs very little energy to swing by 15°, forcing the water 4 m down in one side channel, and 4 m higher in the other channel. In the upper position, the gate opens to allow up to five yachts to enter the channel. The lock then tilts to lower the water level by 8 m, and the boats then proceed under the bridge. Once through to the other side, the lock tilts back again and the gate at the far end is opened to allow the boats to proceed out of the lock.

The investment for building such a lock is around €60 million, depending on its length, but the benefits will be enormous. A cost/benefit analysis predicts that a tilting lock at the very busy Haringvliet bridge will yield €100 million over a period of 25 years, with a pay-back time of 12 years. The tilting lock could also be used as an energy-efficient ordinary lock with no water being lost when moving boats from higher to lower water levels – a persistent problem in canal systems that are dependent on rainwater to maintain sufficient water depth.

A video showing how the structure would operate may be seen on <http://goo.gl/gbrDLI>



Suez Canal dredging rush

A record is no doubt being established on the New Suez Canal dredging contract. The contractor Royal Boskalis Westminster NV, which currently has 38 dredgers deployed to dig the new length of canal, shows how the dredging project is 'pushing the boundaries in terms of speed and deployment of equipment and manpower'. The Suez Canal Authority has announced that the new canal, allowing two-way traffic throughout, will open on August 6. Work on the \$8 billion canal began 10 months ago. The latest figures show that nearly 220 million m³ of material has been dredged out so far, representing 85% of the total of 258 million. ■

Touring the marvels of Canal du Midi engineering

As an engineer specialized in the restoration of historic structures on the old towpath canals in the US, Denis McMullan gives his personal review of the structures of the Canal du Midi. We publish here the account of his tour and research conducted in May 2015, while his technical review of the aqueducts he visited will be published in WWW27.

AFTER SPENDING a hectic three days with David Edwards-May and a day-and-a-half with Samuel Vannier, the canal's archivist, I have a new respect for the designers and builders of the Canal du Midi. To build such an immense engineering project with no clear prior understanding of the challenges or solutions, but with a strong commitment to succeed no matter what, reminds me of John F. Kennedy's determination to put a man on the moon in 10 years. I really do not believe it is any less of a success.

The engineering feats that were accomplished by salt tax collector Pierre-Paul Riquet in collaboration with local artisans, notable French engineers and some help, but also interference, from the 'Central Office' in Paris, are truly breathtaking. I will be forever grateful to David and to Samuel Vannier for bringing to life the challenges, frustrations, failures and eventual success of the canal designers and builders.

Back in 2000 when I attended the World Canals Conference in Dublin, I had the good fortune to meet fellow Queen's University civil engineer John McKeown, who provided access to ongoing repair work on several Irish aqueducts and a copy of the original early 19th century drawing of Whitworth Aqueduct over the River Inny (1814-1818), the only original drawing from that era that I could find. Now, thanks to Samuel Vannier, I have lots of historical data including drawings, specifications and reports on the Canal du Midi. I cannot wait to start delving into the engineering details.

We stayed in the delightful Phoenicia Hotel just across the street from the train station. It was a remarkable sight to see passing road vehicles with a boat sailing in the background in the middle of a town. I quickly crossed the street and watched the boat passing through Bayard Lock; however, I was disappointed by the massive concrete beams across the extended lock right in the center of Toulouse. As a structural engineer, I understand the need to keep the deep walls from collapsing inwards, but there are many, many other solutions that would not involve this degree of intrusion. I can only hope that someday this particular solution can be reversed.

We also visited Minimes Lock, the Port de l'Embouchure basin at the junction of the Canal du Midi and the Garrone Canal that provides the link to the Atlantic. There is also a side connection with the 2 km long Brienne Canal. We then set off on the bicycles to visit Samuel Vannier.

Répubre aqueduct. DEM



He was prepared for our arrival and had assembled a lot of data. He knew I was specifically interested in waterproofing techniques and had been looking for drawings and specifications that might provide applicable information.

In the afternoon we biked from Toulouse to the village of Baziège. Along the way we saw a modern aqueduct over a motorway, the locks at Castanet, Vic and Montgiscard, the latter a double with *lavoir* (wash-house) and, in Baziège, a beautiful red-bricked church with a vertically extended wall containing the church bells. After trying to keep up with David for 24 km on a bicycle, and narrowly avoiding one disaster after another from oncoming and passing cyclists, dogs, children and the occasional impossibly narrow ledges under bridges, I consider myself fortunate to be alive to write this note!

'I hope that the original designs of the canal can be respected in the future.'

We enjoyed a very brief respite at a local café, had a very welcome cold beer and admired the sculptured relief on an adjacent wall. The relief, comprising figures and symbols inside an open shell, represents the ancient pilgrimage route to Saint James of Compostella in Northern Spain. I then had to drag David away from conversations with the local folks in order to catch the train back to Toulouse.

The next day we visited the Naurouze summit level (the *partage des eaux*). David pointed out the plaque that the Inland Waterways Association had installed in 1981 at the divide honoring Pierre-Paul Riquet for completing the canal in 1681. We also visited the mill on the feeder canal and the octagonal basin designed by Riquet but now filled in and replaced by a perimeter canal (except for one portion rewatered for the needs of a pumping station).

It was interesting to see the second Atlantic Ocean-side lock, now the first since the first was filled in and the basin by-passed. On the lock-keeper's house was the first of several plaques erected by the Franco-American Friendship Association to commemorate U.S. President Thomas Jefferson's visit to the Canal du Midi.

This one recognizes the contributions that each nation made to the other's constitution.

We then drove to Saint-Ferréol Dam, the original summit reservoir. I enjoyed the museum and meeting its charming director Dominique Pilato. She showed us the water photo exhibit still under construction. Perhaps at the next opportunity they would produce an exhibit which will reflect the ingenuity, grit, brilliance and political savvy of the people who built this marvel including the many female workers. There are a few interesting texts in the bookstore, but I felt there was room for more historic information, including photos of construction, typical life on the canal and notable structures either still standing or long gone. I know there are many great photographs available in the archives in Toulouse that would add depth to the museum collection.

Then a short drive to Castelnaudary with its *Grand bassin* and the four-lock Saint-Roch staircase. Here we saw two downstream boats passing one upstream-bound between the first and second chambers. This involved three boats in one lock at the same time, something I have never seen before, but they somehow juggled through.

Then we visited the Fresquel aqueduct near Carcassonne which was built wide enough to carry a road that is still very busy. As is common, it was very difficult to get down to the river level to closely inspect the underside of the arches.

Access to the Orbiel Aqueduct at Trèbes was much easier and I was able to make an estimate of the depth. It was fun to see two boats crossing the aqueduct and to watch cyclists examining the structure with great interest. Alas, with little information on display, they quickly continued their journey.

The next day, Saturday 30th, included several non-canal sites and the Répubre and Cesse aqueducts. One very unusual structure was Gailhousty Lock incorporating a dry dock at half lock height. I don't know of any others but I am sure there must be some. What a great idea.

My experience was exhilarating and fascinating, but, at times, disappointing. The maintenance of this world-class structure must be a huge challenge but I hope that the original design can be respected and only modified if absolutely necessary. ■ DENIS McMULLAN [TO BE CONTINUED IN WWW 27]

Brand new Grand Canal museum at Nanwang – a preview

Edith and Snorre Dag Bronder spent three weeks touring China's Grand Canal in March 2015. In this first article, they look at the Nanwang summit level section of the historic canal. In WWW27 we will publish an account of the whole tour starting at the southern end of the canal in Hangzhou.

THE NANWANG WATERSHED is, without a doubt, the most interesting section of the historic Grand Canal. It was almost entirely renovated between 1411 and 1415 during the Ming Dynasty (1368-1644).

A magistrate in Shandong Province had sent a memorandum to the Yongle Emperor protesting against the inadequate means of transporting 4 million dan (roughly 300 000 tonnes) of grain every year. This meant unloading enormous quantities of grain into smaller barges to handle the shallow waters and then back on to big barges once the shipment reached the Yellow River. Sometimes the grain even had to be transported overland. Chinese engineers thus built the Dai Cun dam (*ba*) on the Wen River (*he*) about 60km northeast of Nanwang. From here water was diverted through the feeder canal called the Xiao Wen He (Little Wen River) into the Grand Canal at Nanwang.

At Nanwang the water could be sent to the north or to the south by means of an intricate lock system to ensure there was enough water on either side for barges to pass. All locks on the system shown on our map* were flash locks, and not conventional pound locks.

Four large reservoirs were dug in Shandong to regulate water levels, which circumvented the need to pump water from local sources and water tables.

The Grand Canal museum at Nanwang, waiting to be enjoyed by tourists and students (opening is delayed by technical difficulties), and the UNESCO commemoration stone



Nanwang has been under excavation since 2008 and an excellent museum was built. It is the best and most informative of all the museums devoted to the Grand Canal, complete with impeccable explanations in English. The Water Dragon King Temple and other buildings have been restored. But unfortunately, the Nanwang Site, including the Museum, is not open to the public. While it is clear that the site is almost finished, there is no indication of when it is scheduled to open.

The Museum at the Dai Cun dam, however can be visited. It is a modern and very interesting complement to Nanwang.

While it offers only a few English translations, the exhibits themselves – models, maps and instruments – proved to be quite self-explanatory.

During this tour with my husband Snorre Dag, we did not look for vestiges of locks north and south of Nanwang. It would be very hard to find whatever is left of them. Even finding

the Nanwang main site was a challenge, with no road maps, no road signs. We knew that Nanwang was not yet open to the public. We are all the more grateful to our special guide for showing us around outside, except for the restored buildings (Dragon King Temple), and letting us go down to see where the Xiao Wen River ran into the Grand Canal. Paths have seemingly been prepared up and downstream, but we had no way of telling how far they go and what you could see from them.

It is very special to stand in front of the Dragon King Temple and look straight into where the Wen He arrives and the water flowed in either direction on the Grand Canal. To recall this, water has been reintroduced to a short length of the former canal here.

We are particularly grateful to Xingming Zhong for his advice and suggestions, and to Ms Ding Haiyan, director of the Bureau of Cultural Relics in Jining, for allowing us to make this exceptional preview of the Nanwang site.

EDITH AND SNORRE DAG BRONDER

A model display in Daicun Ba Museum showing how the dam was constructed, during the early Ming dynasty.

