The Almkanal today

In normal operating state 5,500 l of water per second flow from the river “Königsseeache“, through the 12 km long main canal and the 6 km long side arms of the “Almkanal“ system, into the “Salzach“ river. The difference in height between the inlet in “Hangendenstein“, at the border to Germany and the outlets into the “Salzach” river adds up to about 56 m.

Presently 18 hydroelectric power plants are generating energy using the water of Almkanal network. Among them are the “Eichetmühle“, Salzburg’s oldest river power plant, the “Pulvermühle“, which belongs to the “Stiegl“ brewery and the city’s emergency power generator. Additionally, numerous cooling and air conditioning facilities, including those of “Festspielhaus“ and “Augustiner Bräu“, are being powered by the rich water supply. Furthermore, 6 ponds with a total area of 130,000 m² are being fed by the Almkanal.

Especially in the southern parts of the city, the Almkanal is appreciated as a characteristic element of the landscape, providing great recreational value. The river banks, mostly lined with old and newly planted pollard willows, serve as popular walkways as well as a car-free transport axis for cyclists. Big parts of the river bank in the city’s parts of “Leopoldskron“, “Gneis“ and “Morzg“ are under protection. In 2010, close to the “Birkensiedlung“ bus stop, a surfing wave was built into the river, which is highly popular through all seasons.

Most of the “Stiftsarm“ subsystem, which is under monumental protection, flows underground through the historic city centre. It only reaches the surface at two small fountains (at “Max-Reinhart-Platz“ & “Universitätsplatz”) as well as at two small segments at the monastery’s bakery “Stiftsbäckerei St. Peter“ and in “Getreidegasse” at house Nr. 19. Additional openings would be desirable. The great interest in the Stiftsarm mainly shows when the canal is emptied for 3 weeks every year in September, at which time guided tours, through the ancient tunnel across “Mönchsberg“ mountain, are offered.

The continued existence for 900 years is striking evidence for the importance of flowing water in the city area on the one hand, and for the quality of this artificial structure on the other.

For further information visit www.almkanal.at

Der Salzburger Almkanal

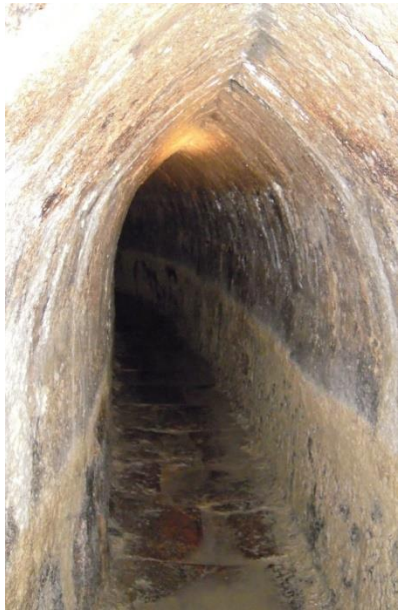
ALMKANAL

A lifeline of Salzburg

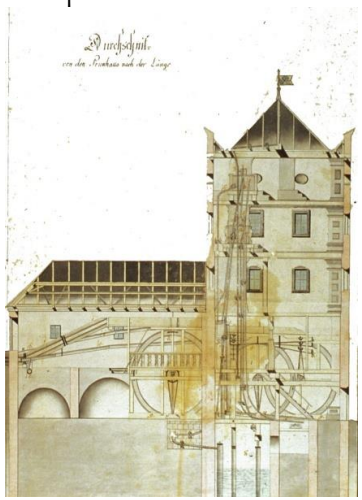
History of the Almkanal

The construction of the oldest part of the Almkanal stream network most likely goes back to the 9th century, when the nowadays called "Müllner-Arm" was moved to the northern side of the "Mönchsberg" mountain. At this artificial canal the first mills, that gave the name to the district "Mülln" were operated.

The insufficient water supply for fields and gardens of the inner city area, the unprotected location of the mills in "Mülln", and probably also the big city fire of 1127 sparked the idea to build a water tunnel through the city's natural protective barrier formed by the mountains. So, between 1136 and 1143, the builders of Dome Chapter and St. Peter Monastery, under Archbishop Konrad I, built the 400 m long "Stiftsarmstollen" tunnel through the rock at the narrow spot between "Festungsberg" and "Mönchsberg" mountain. In order to get enough water to operate the mills erected at the city side of the mountain, in 1160 a wooden feeder line was constructed through the swamps of "Leopoldskron" to "Rosittenbach" stream. Excess water from there was split up and led to the mills of Mülln.
At this divide the "Pulvermühle" developed some time later, where it stands until today.


Stiftsarmstollen

With the permission to build a 5 km long cut canal from "Rosittenbach" through the forest of "Gartenau" to the river "Königsseeache" in 1286, Kuno von Gutrat improved the water supply tremendously, which was very important for the city's further development. Soon after, in the middle of the 14th century and 400 years before the construction of the big "Neutor" tunnel, citizens got permission from Archbishop Friedrich III to build a second water tunnel through the "Mönchsberg". They led water from the "Müllner-Arm", via the "Riedenburg-Arm", through the mountain to supply the citizens' hospital on the city side. Near the tunnel exit, mills, grinding and fulling shops, smithies and sawmills made good use of the water power and a commercial centre developed.
The "Städtische Brunnhaus", constructed in 1548, was also powered by water from the Almkanal and pumped up ground water to supply the majority of the city's houses. Additionally, wooden waterpipes coming from the "Stiftsarmstollen" provided water at over 80 outlets for wells, washhouses, baths, horse ponds and fish boxes.


Städtisches Brunnhaus

Erzbischöfliches Brunnhaus

In 1664, at the southern slope of the "Festungsberg" mountain, the "Erzbischöfliche Brunnhaus" with its giant water wheel and pumps was built, in order to carry water up the mountain to generate high pressure for the "Residenzbrunnen" fountain.

Divided into 4 arms, the "Stiftsarm" runs through the inner city and served as a power source for mills and factories as well as a sewer. Beyond that, the butcher's stalls, settled by Wolf Dietrich at the "Gries" district, could be flooded. That way, until the end of the 19th century, their waste was washed away quickly into the "Salzach" river, to prevent epidemic outbreaks.

Alongside St. Peter's Monastery and the Dome Chapter, in 1566, the archiepiscopal chamber took over one third of the maintenance expenses caused by the canal system, because the huge, recently installed fish ponds of "Leopoldskron" and "Glanegg", as well as the development of new water lines, had led to an enormous increase in water demand and repair costs.

Between 16th and 19th century, the Almkanal advanced to a real lifeline for commerce and industry inside and outside of the city. Mills, sawmills, fulling shops, grinderies, polishing shops, smithies, hammer mills, water pump works, white lead and leather factories, spice and clay beaters, powder factories, malt mills, breweries and fig coffee factories were operated and numerous ponds for ice production were built. The village of „Grödig" became the centre of iron manufacture and cement industry.
With the secularisation in 1803 the state took over the administration of the canal system from the three catholic courts. At the economic golden age of the Almkanal, at the end of 19th century, 63 hydro power plants with a total power output of almost 2000 PS and 353 water usage rights were registered.

Pulvermühle around 1840

Both of the world wars and the following market crises, but also extensions of the electricity network, lead to abandonment of lots of facilities and gradual decay of the canal network. In 1937 the state withdrew from operating the Almkanal and appointed, by a special federal law, 2 cooperative societies for water works, alongside the city of Salzburg, to be responsible for maintenance. The position of „Almmeister" was created and put in charge of the technical administration. But this constellation could also not completely stop the degeneration of the Almkanal network.
Faced with the alternative choice to definitively close down by filling the canals with rubble and dirt, in 1979 the decision to restore the system through public funds was made. In the following 18 years, ca. 4.5 m € were invested. That way, the survival of Salzburg's Almkanal system, a unique cultural monument of historical water architecture, could be secured.

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Almmeister Dipl. Ing. Wolfgang Peter / translation by Lukas Peter