

Editorial



One of the scientific and didactic centres, important in the international scale is Aachen, the westernmost city of Germany, located along its borders with Belgium and the Netherlands, located in so-called Three-Border Region of Belgium, Germany and the Netherlands. In that city on 16th – 18th September 2008 the 10th International Conference Semi-Solid Processing of Alloys and Composites S2P2008 organised by the RWTH Aachen University and University of Liège, Belgium took place. The conference was concentrated on the advancement of fundamental knowledge and development of materials and industrial processes for semi-solid manufacturing of high performance metal components. The conference topics covered some imported subjects, such as: process development and industrial application, material development and characterisation, numerical modelling and simulation and process and parts assessment. The Conference was preceded by a Training School on Industrial Applications of Semi-Solid Processing organised by COST Action 541 on 15th September 2008 in University of Liège, Belgium. The Plenary Sessions took place also in Belgium, and were carried out by Professors: M. Flemings and F. Czerwinski, and plenary lectures were given by Prof. P. Kapranos, Prof. F. Czerwinski, Prof. A. Alexandrou, Prof. P. Cezzard and Prof. W.C.Keung. Among conference delegates there were WAMME Fellows, and among them the chairman of one of the sessions – Prof. M. Rosso.

Aachen University of Technology – RWTH Aachen, as one of the main organisers of those events, established as Polytechnic in 1870, is a centre of technological research of worldwide importance, especially for electrical and mechanical engineering, computer sciences and physics. The university clinics attached to the RWTH, the Klinikum Aachen, is the biggest single-building hospital in Europe. Over time, a host of software and computer industries have developed around the university. In 1971 Aachen University of Applied Sciences- FH Aachen which offers the classical engineering education in professions like mechatronics, construction engineering, mechanical engineering or electrical engineering, and also education in the field of commerce, politics and professional practice was founded. The German Army's Technical School is also situated in Aachen. Aachen is also the seat of numerous scientific institutes, not only university ones but also among others Fraunhofer Institutes of Molecular Biology and Production Technology and Ford Research Centre.

Aachen is an important centre of culture in Germany. Since 1950 a committee of Aachen citizens has annually awarded the Karlspreis (German for 'Charlemagne Award') to personalities of outstanding service to the unification of Europe. In 2004, Pope John Paul II's efforts to unite Europe were honoured with an 'Extraordinary Charlemagne Medal', which was awarded for the first time ever. The International Charlemagne Prize of Aachen was awarded in the year 2000 to the President of the United States, Bill Clinton, for his special personal contribution to cooperation with the states of Europe, for the preservation of peace, freedom, democracy and human rights in Europe, and for his support of the enlargement of the European Union. Aachen is at the western end of the Benrath line that divides High German to the south from the rest of the West Germanic speech area to the north. The local speciality of Aachen is an originally stonehard type of sweet bread, baked in large flat loaves, called Aachener Printen sweetened with sugar. Unlike gingerbread (German: Lebkuchen), which is sweetened with honey. Today, a soft version is sold under the same name which follows an entirely different recipe. The annual CHIO (short for the French Concours Hippique International Officiel) is the biggest equestrian meeting of the world and among horsemen considered to be as prestigious for equitation as the tournament of Wimbledon for tennis. The local football team Alemannia Aachen has the stadium called Tivoli. For many years Aachen used to be the administrative centre for the coal-mining industries in neighbouring places to the northeast. At present Aachen is a major centre of IT development in Germany. Products manufactured in or around Aachen include electronics, chemicals, plastics, textiles, glass, cosmetics, and needles and pins. Its most important source of revenue, the textile industries, have been dead for almost half a century now.

Aachen was partially destroyed during World War II, and in some parts completely, mostly by bombing in the latest phase of non-surrender, by American artillery fire and through deliberate destruction wrought by the SS division employed to keep Aachen out of allied hands as long as possible. Damaged buildings include the medieval churches of St. Foillan, St. Paul and St. Nicholas, the impressive Aachen Cathedral later designated as a UNESCO World Heritage Site and the 14th-century Rathaus (city hall) was largely unscathed. The city was liberated as the first German city to be free from Nazi rule, with only 4000 inhabitants on 21st October 1944.

In Aachen there are many interesting monuments. The Aachen Cathedral was erected on

the orders of Charlemagne in 786 AD and was on completion the largest dome north of the Alps. The cathedral was extended several times in later ages, turning it into a curious and unique mixture of building styles. The coronation hall is on the first floor of the city hall with five frescoes by Alfre Rethel which show legendary scenes from the life of Charlemagne, as well as Charlemagne's signature. The Grashaus, a late medieval house at the Market, is one of the oldest non-religious buildings in downtown Aachen. The Elisenbrunnen is a neoclassical hall covering one of the cities famous fountains. The theatre is dated from 19th century. Also the two remaining city gates, the Ponttor and the Kleinmarschierort, and also a few parts of both medieval city walls left, most of two towers are well-known.

Since Roman times, the hot springs at Aachen have been channelled into baths. The Romans named the hot sulphur springs of Aachen Aquis-Granum. The name Granus has lately been identified as that of a Celtic deity. In French-speaking areas of the former Empire the word aquis evolved into the modern Aix. Aachen has the hottest springs of Central Europe with water temperatures of 74°C. The water contains a considerable percentage of common salt and other sodium salts and sulphur.

In the Carolus Thermen named for Charlemagne, the formal cascade gives the water sufficient chance to cool.

After Roman times, in 765-766 Pippin the Younger spent both Christmas and Easter at Aquis villa. In the year of his coronation, 768, Charlemagne came to spend Christmas at Aachen for the first time. Charlemagne spent most winters between 792 and his death in 814 in Aachen. In 936, Otto I was crowned a king of the kingdom in the collegiate church built by Charlemagne. Over the next 500 years, most kings of Germany destined to reign over the Holy Roman Empire were crowned "King of the Germans" in Aachen. The last king to be crowned here was Ferdinand I in 1531.

In 1372, Aachen became the first coin-minting city in the world to regularly place an Anno Domini date on a general circulation coin, a groschen. During the Middle Ages, Aachen remained a city of regional importance as a Free Imperial City. In 1656, a great fire devastated Aachen. It still remained a place of a historical myth and became newly attractive as a spa by the middle of the 17th century. In the middle of the 18th century, industrialisation had swept away most of the city's medieval rules of production and commerce. In 1815 after the Napoleonic Wars, the Kingdom of Prussia took over and the city became one of its most socially and politically backward centres until the end of the 19th century. Administered within the Rhine Province, by 1880 the population was 80,000. Starting in 1840, the railway from Cologne to Belgium passed through Aachen. In the 19th century and up to the 1930s, the city was important for the production of railway locomotives and carriages, iron, pins, needles, buttons, tobacco, woollen goods, and silk goods.

Undoubtedly, the stay in that wonderful city causes many positive emotions. The interesting Conference in unusually beautiful places in Europe surely will be remembered for long by its delegates. As usual I invite its delegates to publish their achievements in the next issues of the Journal AMME. The Journal is open for P.T. Authors and an interesting subject-matter. P.T. Readers of the Journal expect interesting publications with great interest, as usual.

Gliwice, in October 2008

Prof. Leszek A. Dobrzanski Dr H.C
Editor-in-Chief of the JAMME
President of the WAMME
President of the ACMSS