Foreword to the 1st edition

When the term "damascus steel" is mentioned, it is immediately associated with the artistically forged Turkish sabre of the 18th century, many examples of which have found their way into museum collections; or the term may conjure up the damaskblades which were so prominent in the fairy stories of Arabia in the One Thousand and One Nights. Johann Georg Krünitz in his famous "Oeconomische Encyclopädie", 1776 edition, under the heading "Damascener Arbeit" offered the following definition: "...the working of iron and steel using techniques emanating from Turkey characterized not only by the particular hardness imparted to the material but also a flame-like motif with gold and silver figures inlaid; an art which spread from Damascus to Europe as a result of the crusades."

The sparseness of the knowledge available at this time, i.e. towards the end of the 18th century, in respect of the art of damascus steelmaking, is made very apparent to us by Manfred Sachse in this the first truly comprehensive history of damascus steel. Over a period lasting more than 20 years, the author has researched and investigated blades of various origins, himself perfected the high art of damask forging (pattern welding), and visited many damascus steel smiths who are still active at their place of work - such as in India - enabling him now to lay an impressive and extensive compendium of knowledge before us. The immense significance of this forging art for the technological development of steelforming as a whole only becomes apparent when one returns to its very origins. For example, as a result of archaeological finds of bladed weaponry, we are able to verify that damascus steelmaking, the products of which are characterized by their extremely high toughness and strength, was apparently already known around 500 BC. In our modern-day terminology, we might well speak of this material being "high-tech" within the context of man's early history.

It is hardly surprising that in Germany's forging centres - the Märkisches Sauerland and the Bergisches Land regions - production of damascus steel became a fully fledged industry. The broad area around the city of Hagen, in particular, played an especially important role during the Carolingian period, which also constituted a time of immense importance for damascus steel: one only has to think of the long and bloody battles between the Franks and the Saxons with their famous protagonists Charlemagne and Widukind. Today it is almost impossible to imagine what happened around 775 AD between the rivers Wupper, Ennepe and Volme. We do know, however, that even then, in the area around Altena, wire was drawn to produce the rings for the chainmail tunics, while at other sites damask spathas (longswords), the seaxes (single-edged swords/daggers) and winged spearheads were forged. Having disappeared into obscurity after the 10th century, damascus steel forging was not revived in Germany until the 18th century, as impressively documented by the blade weapons and fire arms which appear in the illustrations contained in this superb compendium.

A large number of the objects presented to us here by Manfred Sachse are exhibited in what is probably the only collection of damascus steel products of its type anywhere in the world - in the Westfälisches Freilichtmuseum of Hagen, "Deutsches Schmiedemuseum" section (German museum of forging). Accommodated in one of the most beautiful valleys of the river Wiese in the foothills of the Sauerland region, this tribute to the history of forging is arranged in the form of numerous replica workshops. And lucky visitors may some-times find Sachse the master craftsman there forging his famous damask blades with mighty blows from his lift hammer.

Dr. Michael Dauskardt Museum Director
Hagen, autumn 1989

Foreword to the 2nd edition

When Manfred Sachse published his excellent book "Damaszenerstahl - Mythos, Geschichte, Technik, Anwendung" in 1989 for the first time, the relatively small circle of insiders and experts familiar with this field of study were unanimous in their acclaim; this was indeed a great work.

The attempt to retell the complicated and multi-faceted history of a forging technology which today has been almost completely discarded could not have been approached with greater aplomb. But would his richly illustrated book also attract those readers who are neither experts nor avid enthusiasts of historical blades?

This sceptical question has been answered by publication of asecond, revised and expanded edition of that self same book.

While in the first edition of his work Manfred Sachse was able to show vividly the extent to which our knowledge of this technology of forge-welded composite steel still remains sparse - in spite of decades of research and experiment - in this second edition he himself has succeeded in filling many of the gaps.

On the occasion of a visit to India in the company of the author, we were able to delve deeply into the previously mysterious question as to how, at a relatively low temperature of just 900° Celsius, the technique of pattern-welding can indeed be successfully applied. In addition, we were also able to acquire new knowledge regarding wootz steel, the "true" damascus steel. These and numerous other valuable additions, combined with new and informative illustrations, have been effectively incorporated into the 2nd edition.

To coincide with the appearance of this book - and not by chance - the "Deutsches Schmiedemuseum" in the Westfälisches Freilichtmuseum of Hagen has scheduled a reopening, with the museum collection relating to damascus steelmaking technology having been revamped within an entirely new presentation concept.

Foreword to the 3rd edition

The third International Damascus Steel Convention is also in the offing, with around 100 scientists, restorers, smiths and collectors from over 15 nations taking part. With almost 20 papers on the agenda, we will surely succeed in taking another small step towards unravelling the mysteries surrounding damascus steel.
And we can no doubt then look forward to the third edition of this outstanding book.

Dr. Michael Dauskardt Museum Director
Westfälisches Freilichtmuseum Hagen -
Landesmuseum für Handwerk und Technik -
Landschaftsverband Westfalen-Lippe
Hagen, April 1993

Damascus steel is alive and well – and in more ways than one. First, there are the many damascus steel smiths and aficionados who make up a burgeoning group of activists. And then there is the inherent life in the material itself – damascus steel speaks many "languages" with its infinitely variable visual variants engendered by the most complex of forging processes.

Manfred Sachse, the "grand old master" and connoisseur of damascus forge-welding, has now presented us with a third, further extended edition of his book. His latest research into blade production in Germany's "steel city" of Solingen is particularly enthralling. Indeed, at the end of the book, he deals in detail with the Solingen region as a follow-up to various reports and results of the long sword-forging traditions of this area mentioned elsewhere in the book. He looks deeply into the question as to when and to what extent damascus blades began to play an important part in Solingen juxtaposed to the more common mono steel versions. The major players and driving forces worthy of particular mention in this regard are armourer and bladed weapons dealer Peter Knecht and the Weyersberg family of smiths. By the eighteenth century, the decorative damascus patterning, accentuated by etching, had become very important for the more prestigious form of bright bladed weapon. To Manfred Sachse's great credit, he has been able through his research in the archives and historical publications to shed clear light on what was previously an inaccessible and unknown field.

A significant basis for Manfred Sachse's deep knowledge of Damascus steel – in addition to his own many years of forging activity – is the Sachse Archive, a repository of knowledge that has been with the Deutsches Klingenmuseum (German Blade Museum) in Solingen for some years. The books and journals, comprehensive photographic and illustrative material and the hand-written records that he has collected are now also available to scientists and researchers of all ilks in the hope that easy access will encourage the knowledge and understanding of the now not quite so "mythical" damascus steel to further grow.

A further major step in this direction will surely be facilitated by the 5th International Congress on Damascus Steel scheduled for 2008 in Kolbermoor, Bavaria/Germany. The IGDF (International Society for Damascus Steel Research), the honorary president of which is Manfred Sachse, is responsible for organizing the congress. And Manfred Sachse's book, with its contents now further extended, will doubtless once again provide an excellent basis for new and more extensive projects in this field.

Dr. Barbara Grotkamp-Schepers
Director of the Deutsches Klingenmuseum,
Solingen, November 2007