

Dr. Kirk's Articles: The Backstory

THE RELATIONSHIP between Dr. David Kirk and Jack Champaigne (Editor of *The Shot Peener* magazine) began in 1993 when they met at the 5th International Conference on Shot Peening in Oxford, United Kingdom. Dr. Kirk organized the conference and edited the Proceedings. He was Chairman of the School of Materials at Coventry University in Coventry, United Kingdom at the time.

Mr. Champaigne was so impressed by Dr. Kirk's knowledge of the shot peening process that he asked him to write for *The Shot Peener*. It wasn't until Dr. Kirk retired in 1998 and after he contributed to seven research papers and an article on shot peening for *Aircraft Engineering and Aerospace Technology* that he committed to the undertaking. His first article titled "Image Analysis and Computer Microscopy of Shot Particles" was featured in the Summer 2001 magazine.

As the Associate Editor of *The Shot Peener*, I've had the pleasure of working with Dr. Kirk since the publication of his first article. Preparing articles of his quality four times a year for over 18 years is no easy feat and I've often wondered how he does it. Not only did Dr. Kirk answer my questions, but he also shared a few hobbies and interests. You will enjoy learning more about Dr. David Kirk.

KATHY: Please tell us about your work process. Are your articles based on research you conducted while at Coventry University? Do you still perform research at the shot peening research lab at Coventry?

DR. KIRK: Most of my earlier articles were based on research carried out at Coventry University. A few years after I retired, both my X-ray and shot peening laboratories closed down. I was the only person using them and then only for about two hours a week. Small items donated to me personally, such as an Almen Gauge, Almen strips and shot samples, I took home where I have carried out further experimental work.

KATHY: Your analogies in the articles make difficult subjects so much easier to understand and they are fun to read. Did you use the same teaching technique in the classroom?

DR. KIRK: Yes. In my view, teaching should be about imparting both knowledge and understanding. I find that the use of analogies is a useful way of facilitating understanding.

KATHY: I've always appreciated your colorful graphics. Do you create them yourself?

ABOUT DR. DAVID KIRK

Dr. Kirk was born into a multi-generational steel-working family in Rotherham, South Yorkshire, England. His grandfather was the operational head of a rolling mill and his father was an open-hearth steelmaker and a part-time lecturer at Rotherham College of Arts and Technology. David won a scholarship to a local grammar school and his academic success secured three scholarships to the University of Birmingham where he studied Industrial Metallurgy. He was the first member of his family to attend university. Dr. Kirk received a Department of Science scholarship after graduation. He then obtained a doctorate for a thesis titled "The Hot Working of Metals."

Dr. Kirk's employment as a Research Fellow at the University of Birmingham proceeded a short period as a Senior Research Metallurgist at the International Nickel Company's Research Laboratory in Birmingham. Dr. Kirk then joined Coventry University as a Senior Lecturer in Metallurgy. He was promoted to Principal Lecturer in

Metallurgy and then Chairman of the School of Materials at Coventry University. His initial research focused on X-ray residual stress measurement. This work prompted him to establish Coventry Science Consultants Ltd. Dr. Kirk installed a shot peening research laboratory at the university with active encouragement and advice by the late Jack Plaster.

Upon retirement, Dr. Kirk became a Visiting Research Fellow and is now Visiting Professor of Materials at Coventry University. Following his organization of the 5th International Conference on Shot Peening, he was elected Chairman of the International Scientific Committee for Shot Peening. The International Scientific Committee has since granted him "Life Member" status. Dr. Kirk has published over 80 research papers and articles on shot peening and residual stresses. Dr. Kirk received the 2001 "Shot Peener of the Year" award for his significant contributions to the advancement of shot peening.

Surface Engineering and Advanced Materials Processing Conference

COULD YOUR COMPANY benefit from accessing Purdue Engineering's advanced capabilities and world-class talent in the fields of surface engineering and materials processing? To find out, we invite you to join us for the Inaugural Surface Engineering & Advanced Materials Processing Conference on May 29 and 30 in West Lafayette, Indiana.

At this event, you will have the opportunity to network with Purdue faculty and graduate students, as well as your industrial peers, in a collaborative environment. We will focus on the challenges and applied research opportunities in these two fields of Materials Science.

While you are in town, you will have the opportunity to participate in the Center for Surface Engineering and Enhancement (CSEE) Workshop and attend the grand opening ceremony and tour our new Laboratory for Advanced Materials Processing (LAMP), an innovation center for applied research in advanced materials processing. Current technologies include, but will not be limited to, high temperature materials processing, ceramics and super-alloys as well as coatings and castings.

During registration, you will have the opportunity to list areas of interest to your company. These comments will help us mold and define the conference agenda.

Tentative Schedule

May 29

9:30 a.m. – 4:00 p.m.

CSEE Workshop

4:15 p.m. – 5:15 p.m.

Open Discussion for interested potential Center members

5:30 p.m. – 7:30 p.m.

Networking with Purdue Engineering Faculty and conference attendees

May 30

8:30 a.m. – 12:00 p.m.

LAMP Grand Opening, Tour and Presentations

12:00 p.m. – 1:00 p.m.

Lunch

1:00 p.m. – 2:00 p.m.

Open Discussion for interested potential Center members

Registration fee for a single day (May 29th or May 30th) is \$75. Registration for both days is \$100. Fees will be used to cover the cost of meals and facility rental. Visit www.giving.purdue.edu/PurdueMSEConference for updates and to register. ●

DR. KIRK: Yes—"all my own work"—so any blemishes are entirely down to me.

KATHY: Do you have favorite topics/problems to explore?

DR. KIRK: I wouldn't call them "favorite". Years ago I was foolish enough to believe that I knew enough to write a textbook on "The Science of Shot Peening." After a few months I realized that there was a very great deal that I did not understand. Subsequent articles are the fruit of my attempts to rectify that situation.

KATHY: You've shared pictures with me of your beautiful garden. Is gardening your hobby?

DR. KIRK: No, not really. I epitomize the lazy gardener approach. Seeds from neighbors' gardens and passing birds maintain the cottage garden effect. My favorite hobby was always ballroom dancing.

KATHY: I didn't know that! Tell me more.

DR. KIRK: As a teenager I was smart enough to realize that girls preferred boys who didn't tread on their feet when dancing. Taking lessons at a local dancing school led to unimaginable benefits. Whilst doing research for my PhD, I went to Birmingham's biggest dancing school where I met my future wife. We are still happily married after more than sixty years.

KATHY: Did you have other interests in addition to studying and dancing with pretty girls?

DR. KIRK: I represented my school at rugby football, athletics, swimming and chess, Birmingham University at boxing, and Coventry University at contract bridge. Quite a mixed bag!

KATHY: Thank you, Dr. Kirk, for making this article possible.



Dr. Kirk's cottage garden.