

The Future of Surface Finishing and the AESF



On its present course American metal finishing is dying. Metal finishing shops and suppliers are faced with a host of continuing threats to their survival, including excessive government regulation, public pressure towards unrealistic goals, a poorly trained labor pool, a general apathy born of fatigue, flight of manufacturers to China, and government policies that hasten that flight.

In an attempt to deal with these problems, industry leaders have called for consolidating our educational association, The American Electroplaters and Surface Finishers Society (AESF), with the trade groups MFSA and NAMF. The belief being that by circling the wagons, mustering our forces, and "Speaking with one voice" we can favorably influence legislation and public opinion. To date, cooperative efforts have met with nice success -- the defeat of proposed MP&M Standards exemplified a major victory, and there have been smaller ones. It is always good to hear The Policy Group alerting us to the goings-on in Washington that impact our livelihood. The recently completed "Bright Design Challenge" was a well thought out plan to get young auto designers thinking in terms of brightwork in/on the cars of the future. Yes, the industry needs, and benefits from, cooperation, good marketing and proactive public relations.

So what's wrong with consolidation? Certainly there is no resistance to AESF getting together

with MFSA/NAMF for efforts like the aforementioned, or hosting joint exhibitions/conferences on the national level, and encouraging branches to hold joint meetings and share annual banquets when beneficial. AESF members also understand honoring commitments to our sister organizations, turning a warm heart towards their needs (which are often our own) and extending our hand in continuing friendship. Many of us acknowledge

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that MFSA got the poor end of the Sur/Fin deal for years and that the financial benefits reaped from Sur/Fin should be shared with our sister organizations in a spirit of conciliation and in recognition of their contributions to its success. Certainly "renting" Sur/Fin for a portion of the proceeds for the time being makes for fairness while allowing for the funding of Government Relations without our non-profit educational society making direct donations.

The problem with "consolidation" is not primarily the impossible awkwardness of trying to balance the voting power of individual members . . . against the voting power of shops that employ 150 people . . . against the voting

power of billion dollar corporations. The Retreat Committee and Transition Committee worked to fatigue, and the allocation of votes is as fair as it can be, although in a sense akin to the rule that neither beggars nor princes may sleep under bridges.

But the real problem is that in these times of sweeping technological and global change we should not even consider dissolving our nation's oldest, most qualified, most resourceful, and best positioned educational society for surface finishing - and relegating America's surface finishing future to the narrower interests of a trade group. Trade groups are by their nature reactionary and pro status-quo. This is a virtue not a fault; they would poorly serve their members if they were otherwise. But witness an early result: the mission of the trade group is to promote North American surface finishing, and it's already driving our educational society's international members away with a stick.

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Clearly the future includes electroplating; but as surface finishing technology explodes in multiple directions, and technology climbs ever higher, electroplating increasingly becomes but one part of a symbiotic surface finish.

"Lifetime" finishes on plumbing fixtures & door hardware involve electroplating followed by PVD hard coating. The best finish for costume jewelry is PVD hard coating followed by gold electroplating. Many "difficult to plate" substrates become easy to electroplate if they are first metallized via PVD. PVD should not be considered an enemy technology simply because more of its suppliers currently belong to SVC than to MFSA (maybe we could get a couple to display at Sur/Fin next year and see the advantages of MFSA membership). Take a moment to try to imagine decorative nickel-

chrome plating in a world where AESF had decided to show interest in chrome but not nickel, or nickel but not chrome. That is the world of PVD-plus-plating today. And PVD is just one of a dozen technologies that the future demands that we partner with. Cryogenics before or after plating? Where do sol-gels fit in? E-coating, powder coating, dip spin, sherardizing, flame spray, HVOF, spark anodizing, CVD, chrome-like paints? Who should be educating America and the world on cross-disciplinary coatings and the finishes of the future? The American Electroplaters and Surface Finishers Society, of course

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Let MFSA draw suppliers from new technologies into their ranks at the time of their choosing. Let NAMF shops consider alternative processes as and when they fit their business plan, much as many plating shops added powder coating capability. But let AESF take advantage of its 97-year history, its rich resources, its proud name, and its unique position as the only organization in the country with the mission of advancing the science of surface finishing as a whole, and get that message out there today. When we are familiar with all surface finishes and their combinations, and can educate people in each, that's when AESF and its members become a service of compelling interest to universities and their young people, and high tech organizations like the defense department and the Fortune 500. Hundreds of product designers from companies big and small hunger for real help with surface finishes every week, but must subsist instead on sales fodder because the one society which could educate them by comparing finishing options hasn't recharged itself, hasn't been able to focus solely on education, and hasn't kept reaching out to fulfill its stated mission.

AESF has somewhat different interests even in electroplating itself than its sister organizations. It's hard to fault MFSA and NAMF for wanting

to downplay the issue of nickel allergy, but AESF should be aggressively leading us toward white bronze for jewelry. Nickel in jewelry is a minor moral wrong and clearly a lost cause anyway. We can speak with one voice on that issue until we're hoarse, but all it does is to allow Europe to continue to lock us out of the wheel house. We stopped cadmium plating on autos when it best suited other countries to issue the order, we stopped hexavalent chromating at the time most convenient for Europe, and we'll stop nickel plating of jewelry and some other consumer items when others elect -- because our educational society has not stepped up to the plate to lead us on our own schedule.



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Technological change comes in a heartbeat these days: it was only a little while ago that super conductivity (zero resistance to electrical movement) was an untested theory; now everyone who has had an MRI has benefited from the reality. Frictionless materials (zero resistance to mechanical motion) are coming! None of us know exactly when, but when they get here, they will clearly be implemented as surface finishes, not as solid materials. The future for AESF is truly limitless! We can hardly dream of the surface finishes of even the near future. The AESF should be involved as they evolve; it should not say "only if they primarily entail traditional electroplating interests".

Back to the other plan, consolidation. Is there anyone anywhere who in his heart of hearts is truly optimistic that this offers anything beyond

life support? At best we hear gloom & doom -- ever declining membership, chronic inability to attract young people, continued movement of low technology offshore. You can win a few battles against the winds of change, but you cannot win the war.

"The potential reward is to thrive rather than survive"

The one thing we need most is advancing technology and the new people that it attracts. An independent AESF absolutely committed to that is our last best hope. Not only for itself, but for MFSA/NAMF as well. And the potential reward is to thrive rather than survive. Please don't dissemble this tool America so desperately needs but which we have hardly tapped of late. The effort China and India are putting into surface finishing education in their universities will very soon relegate us to the dustbin of history if we lack the will to recharge AESF as an educational society for all of the surface finishing technologies.

This is the very moment of truth. At Sur/Fin in September the council of delegates will vote to terminate the AESF and sweep its remains under the trade group umbrella, or they will vote to rededicate AESF to expanding its mission, grabbing the future, and thriving. To those who have until this point favored consolidation, most especially those who have worked selflessly and tirelessly for it in the belief that it was for the greater good, I say as appropriate to occasions of historic moment, "I beseech you from the bottom of my AESF heart to consider the possibility that you may be in error".

-- Ted Mooney, P.E.
Secretary, Philadelphia Branch
Past President, Garden State Branch AESF