

A Brief History of Scale Modelling (As I Recall It)

By John Loughman

The story of injection molded plastic (polystyrene) scale models begins in the early 1950's when two businessmen (Lewis Glasser in America, founder of Revell) and (Nicholas Kove in England, founder of Airfix) decided independently of each other to use their injection molding equipment to produce toys that the purchaser would put together with a suitable adhesive. Initially, painting the toy or model was an option only if the purchaser was able to obtain suitable household paints or artists oil paints.

Although the scale detail was crude by today's molding standards both businessmen were surprised by the sales reaction of people who readily accepted their offerings and soon a wider range of model types began to appear. Neither of the two men were model hobbyists in any sense of the word and Lewis Glasser was even to boast that he had never made one of his company's model kits. Their interest in model kits was purely profit driven and particularly in the early years of Revell it could be safely said that the interests of scale detail and accuracy never interfered with profit making. In fact Revell's scale policy at the time was to make the kit fit one of several sized cardboard boxes which resulted in very unusual scale variations. That said, it is difficult to understand how at the same time, Revell produced an excellent series of well detailed 1/90 scale sailing ships even by today's standards, complete with rigging cord and long lengths of chain. (incidentally, this chain was coveted later on by AFV modelers). The Cutty Sark ship model was probably the most popular of the range and countless kits were bought and stored by purchasers to build in their retirement many years to come. In fact by the time retirement came around many of the builder usually had shaky hands and poor eyesight and induced younger people to build the kits for them.

Airfix soon realized the value of constant scale kits, introducing a range of 1/72 aircraft models and 1/76 scale tanks, plus model railway accessories. The 1/72 scale model aircraft line complemented the pre-war Frog range of bakelite aircraft kits and the postwar balsa "solid model" kits which provided acetate canopies and die cast wheels and propellers. The "solid scale" fraternity took to the plastic kits with fervor and skills obtained with the former balsa kits served them well when changing over to plastic. Eventually the balsa wood solid model kit firms such as Kiel Kraft in the UK, disappeared although Kiel Kraft had a final fling with an injection molded 1/72 Hawker Hurricane with retracting wheels, but it was too late to compete with Airfix and Frog who now had dominance in this

scale.

Revell began producing American car kits to a constant scale around about the time the slot car craze was developing and the popularity of these kits encouraged the company to hold large model car competitions throughout many of the American states. It was a very long time however, before Revell introduced constant scale aircraft kits and by then other manufacturers on the scene, particularly Monogram, had a firm grip on this aspect of the model market.

The early success of Airfix and Revell saw the rapid emergence of other firms in various countries into the lucrative pocket money hobby market. At this stage of the emerging hobby, the cheap price of plastic models meant that a determined modeler could purchase and build most of the range of kits available in hobby shops and if a small disaster occurred when the lady of the house accidentally knocked a model of a shelf or mantelpiece with a feather duster it was not a disaster of any great magnitude, except perhaps in the case of a sailing ship model.

Model kits were now appearing ranging from simple aircraft kits with single piece flat wings with two fuselage sides to complex ship and car models. The instruction sheets were in English language and often contained construction photos and detailed assembly drawings. In most cases the kits parts were identified by name and there was an educational aspect connected with the hobby. The major downside to the emerging serious modeler was the often crude decal or transfer sheet associated with the model kits. Early Airfix aircraft kits usually provided roundels of indifferent size and a set of squadron markings and crude fuselage serial numbers. Any other markings such as stencil markings and alternative markings were non existent.

It did not take long for some modelers with a background in the printing trade to realize that there was a small market for alternative and improved decals, one of the first being the firm of HisAirDec which also produced a small magazine promoting its products.

The new breed of solid scale modelers initially modeled in a vacuum , eagerly seeking scale drawings and color information from the commercial aviation publications and flying scale magazines such as the British "Aeromodeller" which from time to time published 1/72 scale aircraft drawings. Occasionally modelers considered themselves lucky if their library had a volume or two of "Aircraft of the Fighting Powers" produced during the war years and terribly suspect in outline accuracy, but then the only game in town. Individual model collections began to grow quickly with the regular release of

new affordable kits. Modelers became used to repainting and decaling old kits as new marking information came to light and with no peer group pressure criticizing prominent seams, decal varnish, and odd dihedrals it was a most enjoyable and heady period. Now and then a model kit might have two sets of decals stuck together which for the modeler was the equivalent of winning the lottery.

The more enterprising modelers would approach the hobby and toy shops seeking to display their models in exchange for a kit or two, leading to contact with other modelers and visits to see the respective collections.

In 1956 Harleyford Publications produced "Aircraft Camouflage and Markings" which quickly became the "bible" for aircraft modelers. Although later careful research would highlight numerous errors and omissions the publication had a beneficial effect on the hobby as modelers began to produce models with markings much different to those supplied in the kit boxes. Around the same time the German researcher Karl Reis published a book on German Camouflage Colors which became the definite reference for a long period of time. To produce the recommended colors of Dunkelgrün and Schwarzgrün modelers usually used Humbrol nr 30 for the former and added some black for the latter. In fact the ubiquitous H30 doubled or tripled as British green, American Olive Drab and Japanese Green, until competition caused Humbrol to introduce its range of "Camouflage Colors" providing a range of finishes for a whole range of camouflage themes. Humbrol's early attempt to market a true "Olive Drab" was disastrous as most production runs produced a color more suitable for painting vehicle tires.

In 1981 most modelers of German aircraft model were stunned by the color scheme revelations contained in the series of books on "Luftwaffe Camouflage" produced by Kookaburra publications which provided alternative schemes in many cases to those put forward by Karl Reis. Owners of large collections of built up models were in a quandary as whether to repaint in the new recommended colors and risk marring the decals or purchase fresh decals and strip the paint from the model. Those with large collections of unbuilt German model themes breathed a sigh of relief.

About 1960 the Airfix magazine appeared on the market. Although owned by the Airfix company ,it operated relatively independently with apparent editorial freedom and soon attracted a variety of modeling authors who contributed regular articles ranging from kit reviews to kit conversion articles and a variety of how to do it articles, One of the most prominent was a former Royal Navy sailor named Chris Ellis. Although initially a model railway enthusiast, Mr Ellis produced a host of articles on naval and military items and

eventually served a time as Editor. He is seen today as the person who encouraged and developed the enormous interest in small scale armour kits, through his informative and encouraging articles on construction and conversion. The theme of small scale armour conversions and scratch building was also encouraged by George Bradford from Canada through his eagerly sought after and hard to find AFV News. In the late 1960's the Miniature Armoured Fighting Vehicle Association brought out a regular magazine call "Tankette" which provided armour modelers with excellent 3 view drawings which complemented the range of drawings produced by the short lived Bellona Publications.

The 1960's period has often been described as the "boom times" of plastic modeling. Magazines devoted to scale modeling and reference material appeared, vacform models began to appear , aftermarket firms began producing improved decals and kit replacement parts, Humbrol Paints began producing a large range of flat and gloss enamel paints aimed specifically at the model enthusiast and the International Plastic Modelers Society started in England and rapidly spread to America, Australia and eventually to most parts of the western world. Most countries had a National committee and each branch had its own committee. Newsletters and magazines were produced by these groups as a means of keeping isolated members in touch. .These publications gave a number of budding historians a chance to publish reference articles based on WW2 photographs and material they had often obtained by corresponding with pilots and aircrew in the 1950's.

Aircraft camouflage and markings research also found an outlet in these publications, sometimes leading to the authors publishing the collected information in book form. In an eagerness to get into publication quickly, numerous items were published as fact without proper research and documentation and any modeler using old model magazines as reference material would do well to read the next two or three issues and note the errata and corrections that followed the articles. Later in the 1970's and onwards, the "Letters to the Editor" section of popular modeling magazines often produced serial entertainment as authors and their detractors savaged each other espousing their own particular point of view. Even today ,a magazine article on "Olive Drab " paint will reverberate for at least several issues.

The early IPMS clubs in all countries operated and existed under various difficult conditions (and perhaps they still do). Initially aircraft modelers and aviation enthusiasts formed the larger part of the membership. Advertising was usually a simple notice in a hobby shop specializing in flying models and model trains. Recruitment was often accomplished by obliging hobby shops allowing membership

application slips to be placed inside kit boxes on the shelf (this was long before shrink wrapping occurred) . Membership was spread through many city and country towns and one of the difficulties was finding a meeting place central and accessible to most members and also affordable. A typical meeting might be held on a week night starting at 7.30 pm and usually breaking up at 9.30 usually due to hiring restrictions. The late evening times and transport problems also made it difficult to attract juniors.

Most of the early members of IPMS in most countries were in their early or late twenties and often involved in aviation historical societies and some even authors in their own right. Others were what was come to be known as "armchair modelers". These well meaning persons sometimes dominated vital committee positions and exercise editorial control the magazine publications.

In order to keep members informed the committees in each country and some branches produced a regular newsletter and/or magazine. Postage was reasonably cheap at the time for registered publications and overseas postage was dearer but usually within the reach of the clubs. International phone calls were generally prohibitive due to the need for long discussions.

In time the UK, USA and Australian branches agreed to exchange magazines on a reciprocal basis. This was very beneficial to all providing a great wealth of hints, reviews and scale drawings as the only easily obtainable model reading matter was the Airfix Magazine and Flying Review/Air International. The latter included several pages devoted to new model kits issues and a page of drawings in color. Frustratingly , the drawings usually showed only one side of a camouflaged aircraft and one half of the top view. When pressed to change, the magazine stated that the drawings were included for the aviation enthusiast and not for the benefit of modelers. This is probably why most modelers quickly browsed through the magazine and then replaced it back in the newsstand.

Each IPMS magazine editor was under pressure to include as many "bangs for bucks" per issue and eventually as membership rose the magazine paper quality improved together with cost increases. Overzealous editors wanting color magazine covers could blow their particular club's budget very quickly. Printing the magazines was usually fraught with problems in rising costs, delays in printing, often needing a change of printer and further delays and even regular changes in magazine editors could induce further hiccups. The general members, particularly those unable to attend meetings wanted their magazines on time and were frustrated by delays or mail problems and tended to make life difficult for the club secretaries.

The emergence of IPMS and its regular modeling surveys gave the

hobby a united lobbying front for the first time to impress upon the modeling companies the need to improve the level of detail and decals in their kits. Most of the modelers at that time failed to understand that their combined purchasing power amounted to virtually nothing when compared with the "kid pocket money " market which was happy with oversize rivets, raised panel lines and thick clear canopies.

As IPMS developed so did the beginning of regular club model competitions. Initially this had a beneficial effect on the hobby as the more skilled and daring modelers began to "push the envelope" and a spirit of co-operation resulted in the creation of many spectacular models, a number of which are still regarded as landmarks in the history of plastic scale modeling. The Historex Chasseur officer animated conversion by Ray Lamb, the Monogram B-17 Diorama by Shep Paine and the Esci Harley Davidson with scratch built rider by the late Bill Hearne readily spring to mind. Another influential individual was Francois Verlinden, an active Belgian modeler with an acute business sense, who eventually turned a cottage industry into an international business.

Unfortunately, the competition scene saw the development of a small modeling "elite" in some clubs which often deterred more timid modelers from entering competitions and in some cases the intense rivalry saw the competition scene develop into a "blood sport" compounded by the need to categorize competition winners as either "first" "second" or "third". Sometimes, the regular competition winners were also committee members and tended to resist efforts to group the better modelers into a separate competition group. It was a long time before the "Out of the Box" category was introduced, initially for the benefit of the beginner or less accomplished modeler.

Although the UK Model Engineer Society had for many years used a "Gold", "Silver" and "Bronze" award system it was left to the Americans to introduce this system to the plastic modeling scene to bring common sense back to the competition scene.

One of the unfortunate facts of many model competitions is that models are often judged by modelers who have not entered in or are not fully conversant with that particular category with the result the standard of judging often falls short of the standard of modeling. An interesting later development was peer group judging introduced by the innovative Francois Verlinden in his Mastercon, where competition entrants voted for their entered category, naturally not being able to vote for their own model.

In the 1970's there began a downturn in the commercial aspect of the hobby with the introduction of arcade computer games. At the same time a world energy crisis occurred which also caused a paper shortage. A number of publishers had to decide between books or

magazines. As the hobby had always been fully dependent on the "kid" market with its abundance of pocket money, the result of young people flocking to arcades to play "space invaders" and similar games saw the hobby kits starting to gather dust on the shop shelves and consequently the manufacturers balked at introducing new kits. Airfix attempted to solve their problem by re-issuing their kits and upgrading the kits series with a subsequent price hike. Other manufacturers increased the size of the boxes leaving a considerable amount of air space in the box which was jumped on by some consumer authorities. Another downer for the hobby was the replacement of "box top" art by photographs of often poorly painted models apparently to avoid legal repercussions from any modeler frustrated in achieving a finish similar to the box art work. The resulting model boxes left many fledgling modelers to surmise that the boxtop finish shown was the best that could be achieved.

The Vietnam War also had a downturn effect on the hobby especially in America where mainly Revell and Monogram were reluctant to produce new military aircraft and armour models, even though Monogram had a promising series of 1/32 military vehicles. The emerging Japanese Toy and Hobby industry had no such inhibitions and saw a niche market in the 1/35 and 1/72 - 1/76 armour markets. Exercising a greater degree of accuracy and attention to detail in their product, firms such as Tamiya, Hasegawa and Fujimi quickly established supremacy in the market place a position which they still hold today although other Asian manufacturers such as Academy and Trumpeter are proving to be their equal in many respects.

In the mid 1980's the personal computer effect saw the demise of the arcade games and the beginning of a return of juniors to the hobby although this new generation of hobbyists tended to lack a parent with a previous interest in modeling. Before long however, this resurgence was overtaken by the new craze of radio controlled cars or buggies produced in the main by Tamiya who saw this as a license to print more money. With so much previous radio control experience by hobbyists in America it is a constant source of wonder why Revell and Monogram were never to invest and dominate this particular field.

As we progress steadily into 2003 those modelers who became involved in the hobby of plastic scale modeling at the start of the 1950's, after exchanging Gem safety razor blades for Xacto hobby knives, can look back on 50 years of gradual evolving change in the nature of our chosen hobby. Starting with a dearth of reference books and magazines we are now faced with a bewildering array of reference photo books, cd-rom's and web site walk rounds. From early Humbrol thick pigment paints that often varied from batch to batch there are dozens of acrylic and oil based paints brands

matched with hundreds of various gloss, satin and matt colors, not to mention umpteen shades of Olive Drab.

Tools now range from power tools, compressors and air brushes, exotic tweezers, files, drills. Where once there was only Humbrol body putty (ugh!) we now have fillers galore, fiberglass resin , super glues and any other product from the space age. We veteran modelers can only watch amazed as newcomers to the hobby readily embrace multi-media kits as beginner entry and instantly achieve a well built and finished model that would have formerly have taken a toll in blood ,sweat and tears and time, not to mention hours of research and use of initiative. I suppose, collectively over these early years in particular , much blood was spilt from sharp knives, double edged razor blades and slipping pin vices, fortunately as far as I am aware, none of it was fatal, although I am sure quite a few septic fingers resulted.

Like the medical profession, where at the start everyone was a "general practitioner" , new entrants are more likely to specialize in a particular field, usually because of the huge range of available model kits in that field. How could one modeler build one of every type of 1/72 scale aircraft , especially when encouraged to enhance each particular kit and thus increasing the time involved. How then could he also build all of the 1/72 scale armour and/or 1/35 armour let alone 1/48 aircraft and scales above.

Over 50 years of active modeling and about 2000 plus kits behind me of good, bad and indifferent standard (I do know the difference) I am glad I was able to tackle just about every type of scale model kit available in every available media and also venture into the fields of scratch building and model railways, because dabbling in different types of models and scales results in a cross fertilization of ideas and techniques, not to mention meeting other modelers in the various fields of endeavor. As well as enjoying the company of other modelers I am glad I was able to share the hobby interest with my two sons and now my grandchildren.

Even with this vast experience behind me I would not dare to predict the way the hobby will progress over the next ten years let alone the next 50 , except to say that it will always be a source of contentment and relaxation for those prepared to take up the hobby no matter what their station in life is. They will always get out of it what they put into it.

Apart from a potted history of the Airfix company several years ago, a definitive history of the development of the plastic scale hobby kit industry is yet to be written. The story of the unnamed and unsung draftsmen, tool and pattern makers involved in the hobby over the years would make fascinating reading, particularly relating the

trials and tribulations of injection molding and the story of the kits that never made it to the metal cutting stage.

The corporate history side would also make extremely interesting reading especially when you consider that at one stage Revell and Airfix virtually had a license to print money for ever. The demise of the Frog company and the collapse and sale and resale of Airfix, Matchbox, Revell and Monogram must have valuable lessons for business executives alone. The swift rise of the Japanese model companies and their eventual domination of the high quality end of the hobby would make fascinating reading. Other interesting sidelines would be the occasional friction and boxing matches between IPMS USA and IPMS Great Britain caused mainly by the delay or failure of magazines to arrive as promised and the width of the Atlantic Ocean and a common language. IPMS 's long insistence that that only kits constructed mainly of plastic could be entered in competitions had a big say in the emergence of various independent modeling clubs and groups as metal figure modelers and wooden ship modelers wanted to compete in these mediums but still be a member of a multi category club. The new clubs tended to include "scale" in their title in lieu of "plastic". (Although I have not been a member of IPMS for many years, leaving to start a ":scale" model club, I do not regret the time spent involved at various levels IPMS Australasia.) The development of Webzines and Club web sites on the Internet as a modeling tool and reference system phenomenon would necessitate a book of its own.

Like any other collective group be it military, sporting or other, the hobby has generated its own source of heroes, legends and myths. Rumors of forthcoming kits and their gestation period(remember the Monogram Catalina) magnificent models broken or damaged on the way to competitions, bun fights over competition results, debates over scale color (never-ending) ,dirty deeds done dirt cheap, armchair modelers upsetting active modelers, distributors and model shops ignorant of their product and how to promote and sell it. Perhaps it is time for the significant model clubs and organizations to conduct an "oral history" campaign so that information will be available for anyone prepared to document our hobby as far as it is possible.

Be warned though, it will be necessary to delve through nearly 30 years of Airfix magazines, hundreds of kit catalogues, IPMS magazines, dozens of scale military and aircraft magazines plus early editions of Air Enthusiast and Air International just to build up the background knowledge to attempt a start. Perhaps the best way would be to have a collective attempt rather than an individual attempt.

If I had room and time I would write much about the characters

,oddballs and events this hobby has produced (Ed Roth and his Finks spring to mind), the Airfix Riveter, the Matchbox Ditch digger, trying to glue together the Monogram 1/72 B-52 with stringy tube glue that dried on one fuselage side before you could effectively glue the other, the various model magazines that came and went, hobby shops and proprietors (Bruce Hearne of Melbourne take a bow) model club meetings in strange and weird surroundings, occasional embezzlement of club funds by itinerant treasurers (not only IPMS) fending off criticism of making "war toys" by worried mothers and home hosted committee meetings where one remaining member is oblivious to hints that supper is over and he should be heading home and letting the host and his wife get some sleep, and searching through the shag pile carpet to locate a kit piece that just took off for parts unknown, just to mention a few.

You may or may not agree with my foregoing remarks and comments but please do not send me your criticisms ; instead sit down and write your own story on what you think is the history of modern scale modeling. I will be pleased to read it.

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