



Acción Press

euro MODELISMO



**SCULPTING
& BODY LANGUAGE**

STEP BY STEP

MONOGRAPH

Introduction

I remember a conversation I had about 10 years ago with an American sculptor and painter. After a while, into the discussion, he asked me if I'd ever try to do any scratch building? I replied, "No, that is not for me! I can do only the painting and very minor conversions." Little did I know that I was to write a book on the sculpting of miniature figures a decade later!

I guess many readers have been (or still are) at the point of doing small conversions avoiding the major ones and scratch building, thinking, 'this is not for me...' Well, hopefully, this book will give you courage and inspiration on the subject of sculpting!

My own progress has gone from painting stock figures, to conversions, to multi-figure dioramas and if there is one thing that has been vital in this 10-year progress, it is the help, advice and criticism given by other modellers and sculptors. When in doubt about a material, a pose or animation, ask a fellow modeller with experience. I have asked for help (and criticism) from several top names in our hobby and all have

shared their personal experiences and given me advice.

Without their help over the years, I very much doubt that I would have been able to write this book. I would probably still be painting stock figures! In this book I will talk about how I approach the sculpting process, focusing on personality and char-

acter in the miniature figure as well as creating vignettes and dioramas.

I hope you will feel encouraged and inspired, making you take the first steps into the sculpting world. Remember, we all had to start somewhere, taking one step at a time. I sure did.

Happy sculpting.





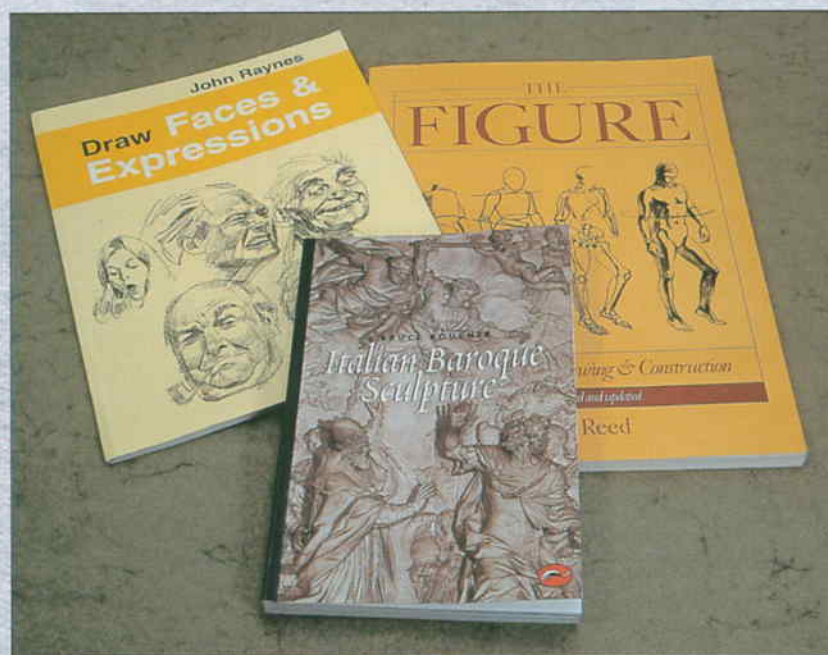
Materials and Tools

Choosing the right material for sculpting is very much like choosing the right type of paint and brush; there isn't one that is the 'right' one for all of us. One simply has to try many different types before finding what works best.

Some of the putties and clays that comes to mind are:



Tools and materials used by the author; Magic Sculpt epoxy putty, Duro epoxy putty, lead sheet, lead wire, talcum powder, sable brushes, rubber-tipped blending tool, scalpel and X-Acto blade, and a rolling pin.



Good reference books are a must when sculpting the human body. Here are some examples.

try several materials, you never know which one you will end up liking.

After trying several types of putties and clays, I find that Magic Sculpt epoxy putty works best for me. I also use Duro putty for some areas (which I will describe later on,) because it has some very different quali-

Magic Sculpt (epoxy putty)

Duro (epoxy putty)

Milliput (epoxy putty)

A+B (epoxy putty)

Super Sculpy (oven hardening clay)

Promat (oven hardening clay)

These all have their own advantages and drawbacks, so you must try them for yourself to see which suits you. Some people swear by Magic Sculpt, others by Milliput, so remember to

I always remove the rings on my fingers to avoid any accidental contact with the soft putty while I'm working it.





A magnifier set in a 'Helping Hands' tool can be beneficial when working with small details.

ties compared to Magic Sculp.

I personally find that the Magic Sculp putty has a soft, almost wax-like, feel when freshly mixed. After some curing time it is slightly flexible, and when fully cured it is very similar to resin; it carves and sands very well. It also weighs very little after it is fully cured when compared to some other epoxy putties. However, one minor drawback I've found with Magic Sculp is that it has a slightly transparent look, which is more noticeable when working with really small parts such as 54 mm noses or fingers. One solution to modify the transparency is to add some talcum powder, applied gently with a big, soft brush, to the area. This will leave a slight 'skin' on the surface, making it much easier to see. Another solution is to add a slight amount of Duro

putty into the Magic Sculp. Yes, it is possible to intermix different brands of two-part epoxy putties give more possibilities, but remember to first mix the Magic Sculp, then mix the Duro, and finally mix them together.

We all know that it is all-too easy to make up too much epoxy putty when preparing to model or sculpt a part, but what should one do with that remaining piece of putty? The answer is quite simple. Put it in a small plastic

bag and put it in the freezer, where it can stay up to 24 hours. Just take it out, let it get warm and then start working again. This is a tip I learned from friends. (Most tips in this book are!)

Nowadays I always mix up much more putty than I need for my first session and put the rest in the freezer and when I've sculpted a part, and it hasn't cured, I simply take out the little plastic bag, take some more putty and put the remainder back in the freezer.



Two more tools I couldn't survive without! The left is a hypodermic needle with the tip filed down to a 'C' for making ring mail. The tool on the right is a brass rod filed down to get a fine and sharp needle point, I use this for details and sculpting tight, narrow creases and folds in clothing.



I keep the working lamp close when sculpting.

To speed up the curing time of epoxy putty, I like to place the sculpted part close to a lamp with a 100-watt light bulb, positioning it about 15-20 cm from the lamp to avoid any risk of overheating. Care should be taken when speed-curing putties, as it can easily ruin a well sculpted part. I would advise you to experiment to find the right temperature and distance between the lamp and the sculpted part for the putty you use. When you have some experience using the putty of your choice, you will find that the different qualities produced during the curing time of the putty will be suited for different purposes and following are some examples I find useful (for me) when working with Magic Sculp.

Facial parts and hands are sculpted with freshly mixed putty.

For garments, jacket sleeves, trousers, etc., I put on the putty and wait for about 10-15 minutes before working it, adding creases, etc.

During the curing ages of the putty, you will find what works best for you. Try it out and see.

My sculpting tools are not really that sophisticated, but they work for me. As with



ASpeed-curing epoxy putty with heat from the working lamp. Make Sure the lamp is not too close to the putty and experiment to determine the ideal distance between the putty and lamp.

The author's working area.

The tools I use are a very sharp 'needle,' made from a piece of brass rod which was put into the chuck of my mini-drill and spun (like a lathe) and filed down to the shape I required. I prefer a brass needle as opposed to a sanded down wooden toothpick as I find that the rigid brass doesn't break or bend as easily as a toothpick. It is also very easy to clean: just scrape it with a scalpel and/or sandpaper to get rid of any remaining putty, super glue or whatever.

A scalpel blade is a must for all sculptors (and modellers) and its uses are endless. I highly recommend that you change the blade often as a new blade will make your work much easier indeed. Sometimes I like to use the blade in my fingers and sometimes fitted into a handle.



choosing the right type of paint, putty or brushes, it's the same when choosing

sculpting tools. You must try for yourself and choose what you like.

There are several sizes and shapes of scalpel blades try them out and see what

I like to keep any newly sculpted parts away from the work area to avoid any accidents where they could be damaged. Here I have placed two freshly sculpted tricorne hats on a plastic container and lightly fixed them in place with 'Blu Tack' to keep the shape of the brims while curing.



works best for different techniques. (More choices!

I use sable brushes to smooth out areas and to blend in the putty. Using brushes is quite effective with Magic Sculp as this putty is, as I've mentioned, very soft and wax-like. If you can, try to use good quality brushes and, like painting, you will notice a difference.

The final tool I use is one of my favourites. It is a rubber tipped, cone-shaped tool set in a paint brush handle. This tool is made for artists to reduce paint on canvas, and comes in several different sizes. I really love this tool, as it gives me a chance to 'move' around the putty and almost 'paint' in the folds and creases. This tool can be bought in most shops selling artists' materials.

A question often asked is what to use for a lubricant when working with putties, and the less than elegant answer is that I actually use natural saliva. My own I might add! I find that saliva gives a good effect when I dip my tools in it and it doesn't stick to

the putty. Some people use cooking oil (it doesn't have to be extra virgin olive oil!) and some like to use water. I simply prefer saliva.

Duro (Kneadatite) putty

This green putty gets its colour by mixing yellow and blue epoxy parts, and is a very different epoxy putty to most others I've tried. When mixed up it has an almost chewing-gum consistency and when fully cured is like hard rubber, making it very easy to cut and slice with a scalpel. I personally find this putty to be perfect for smaller parts and details, such as belt buckles, medals, etc. I also use it mixed with Magic Sculp when making ring mail, hair and some other parts. Magic Sculp is used for all cloth areas and facial parts.

Experience with different putties will show what they are best suited for, hence the importance of trying out new materials. You may be pleasantly surprised!



The resin parts that will be used in the chapter where I show how to model a 54 mm figure. Note the lead wire from the metal head, acting as support when sculpting and modelling the neck.

Plastic card in various thicknesses.

Brass rod in various sizes for armature pinning.

A 'Helping Hands' tool with a magnifying glass - useful for all detail work.

'Blu Tack' for supporting parts when attached, and for trying out poses on figures and parts.

I also like to use pre-cast resin body parts, which help to speed up the sculpting time. I use modified

Following is a list of more tools I also use when sculpting:

Super glue, both in gel form and very fluid.

Two-part epoxy glue.

Sandpaper in various grades.

Hobby knife with a heavy blade for cutting metal parts.

Hobby saw for cutting and sawing resin and other parts.

Lead sheet for belts, straps, etc.

parts originally made by Oakwood studios several years ago. I normally use the torso, pelvis, and legs. Thin brass rod is used to pin the parts together and sometimes I use Magic Sculp between them which I pose and then let dry.

When a pose is decided upon, the body is built with Magic Sculp. I try to achieve a well-sculpted body with the correct anatomy, but more of this in the next chapter.

Body language, expressions and character

Before you even touch the epoxy putty for any figure modelling project it is very important that you have knowledge of the human body and how it works. You must constantly check and recheck that there are no problems with the anat-

omy. I still double check (and triple check) that the proportions of any figures that I sculpt are correct in every way.

There are plenty of good art books dealing with the human body and if you wish to sculpt your own figures you should buy at least

couple of them. Later on, you will be glad that you did! It's also a good tip to check the pose of the figure, by looking at yourself in the mirror. (This is always good for laughs from your friends and family!) Remember that the anatomy and proportions are the most important

features of a sculpted figure. It is the very basic, but most important requirement.

It is also a good idea to study people in your surroundings, on your way to

The photos in this chapter shows a body adopting different poses.

a



Note the difference between the two poses. There is no stress, but the first one seems rigid and aesthetic while the second one is more dynamic as the shoulder level contrasts with the hip line.

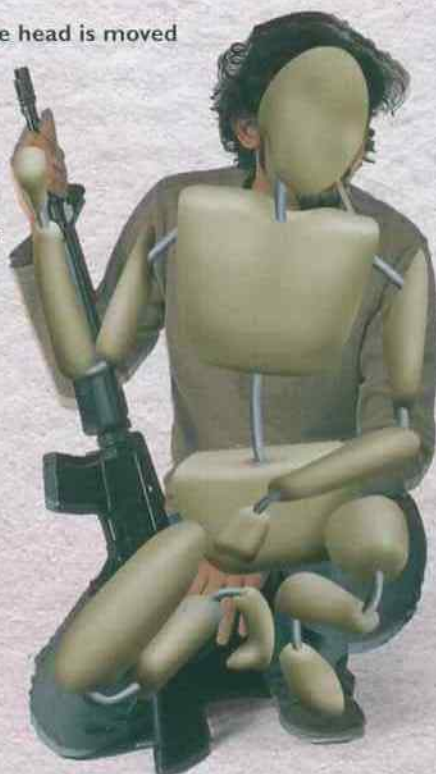
work, when having your lunch, on the television ...Just about everywhere you can think of. Study now people walk, sit, move, run, etc. This is a very useful exercise that helps you progress as a modeller of figures. You can, of course, also study the work of other modellers and get inspiration and ideas. Amongst others, I always love to study the works of are, A. Larruccia, J. Rosengrant, Stefano Borin, Raúl G. Latorre, Stefano Cannone, Julian Hullis and Bill Horan.

Just like painting, is important to remember that the more modellers you study and get inspiration from, the more original you will become. (Yes, I know I've said before, but it's worth repeating.)

Body Language

One of my favourite topics nowadays is 'body language!' Once you have decided on what your next figure project will be, the next should be, 'How do I get a character that

The head is moved slightly to the left while the rifle points to the right.



suits the subject!' Let me give you some examples. When making a citizen of the French revolution, you might think of a poor, rough and less-than-elegant person. By thinking in these terms when modelling figures, you will add that extra touch of 'life' to a character.

Once you have established a body language that suits your figure, the next step is to decide upon the facial expression. Remember it is vital to match the facial expression with the pose/body language of your figure.

For example, it is not recommended to model a mounted, charging figure

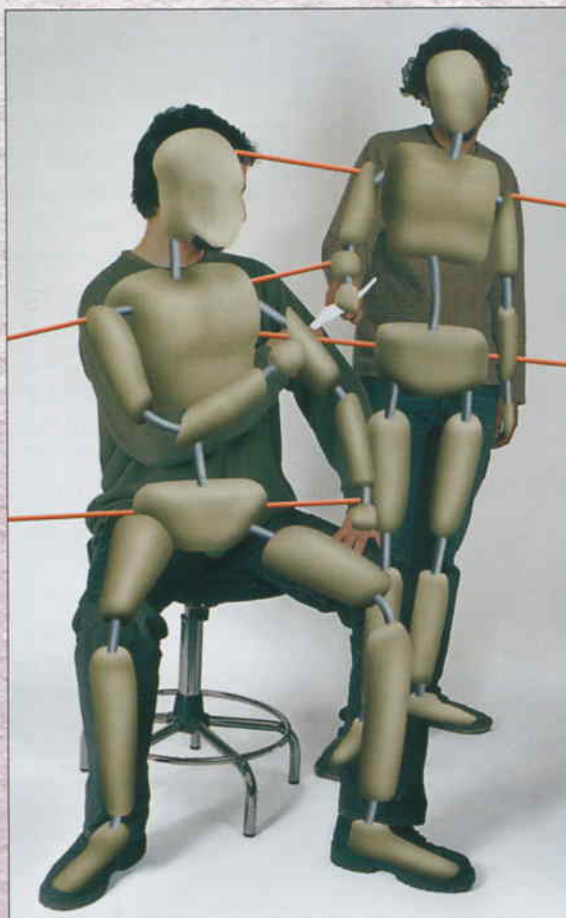
When fixing the pose of a figure, always exaggerate the manner for showing the feelings. The neck is really a point of inflection and here it is used to form different directions for both the back and the head, using no straight lines.



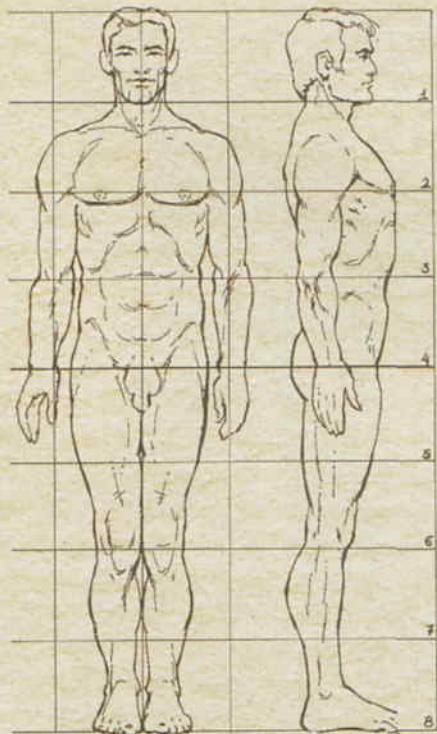
In this scene observe the servile pose of the messenger close to the arrogant pose of the recipient.

The civilian clothes used on both figures are absolutely anonymous, but the poses of both bodies can reveal each subject's rank. It could equally be a military messenger delivering documents to a general officer.

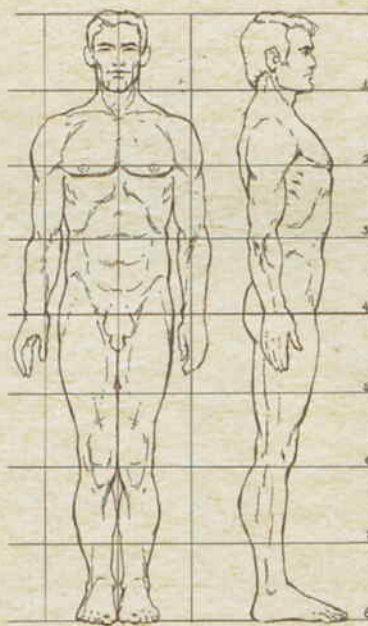
Young and old bodies move in their very own ways and female bodies also have their own body language.



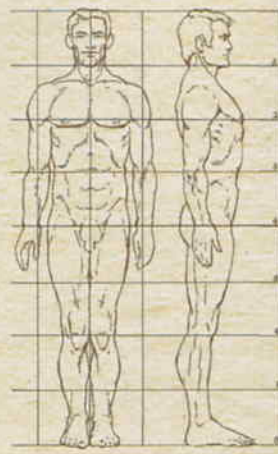
Human Body Proportions



90 mm



75 mm



54 mm

with an expressionless face. Instead, choose a face full of emotion and anger, open mouth, lowered eyebrows, etc. A standing figure at ease and very relaxed goes well with a smiling face – perhaps!

Next to the face, the hands are the parts of the human body that are the most expressive and just as with the face you should match the pose of the hands (and the fingers) to suit the body language and character. A good example would be an aristocratic figure, who might be in a pose with a straight back, his nose

pointing slightly upwards and his hands barely holding a cane, with perhaps the little fingers pointing out.

Another good example is the citizen of the revolution who might have a bad posture, bent back, a more grim expression on his face, and big hands that firmly grip anything he holds. (No pointing little fingers here!)

By thinking in these terms we can establish a character by first choosing a pose and body language. Next, choose a face with matching expression, and finally hands that goes with the character. After some

experience you will get the idea of this concept and your figures will most probably look more 'alive'.

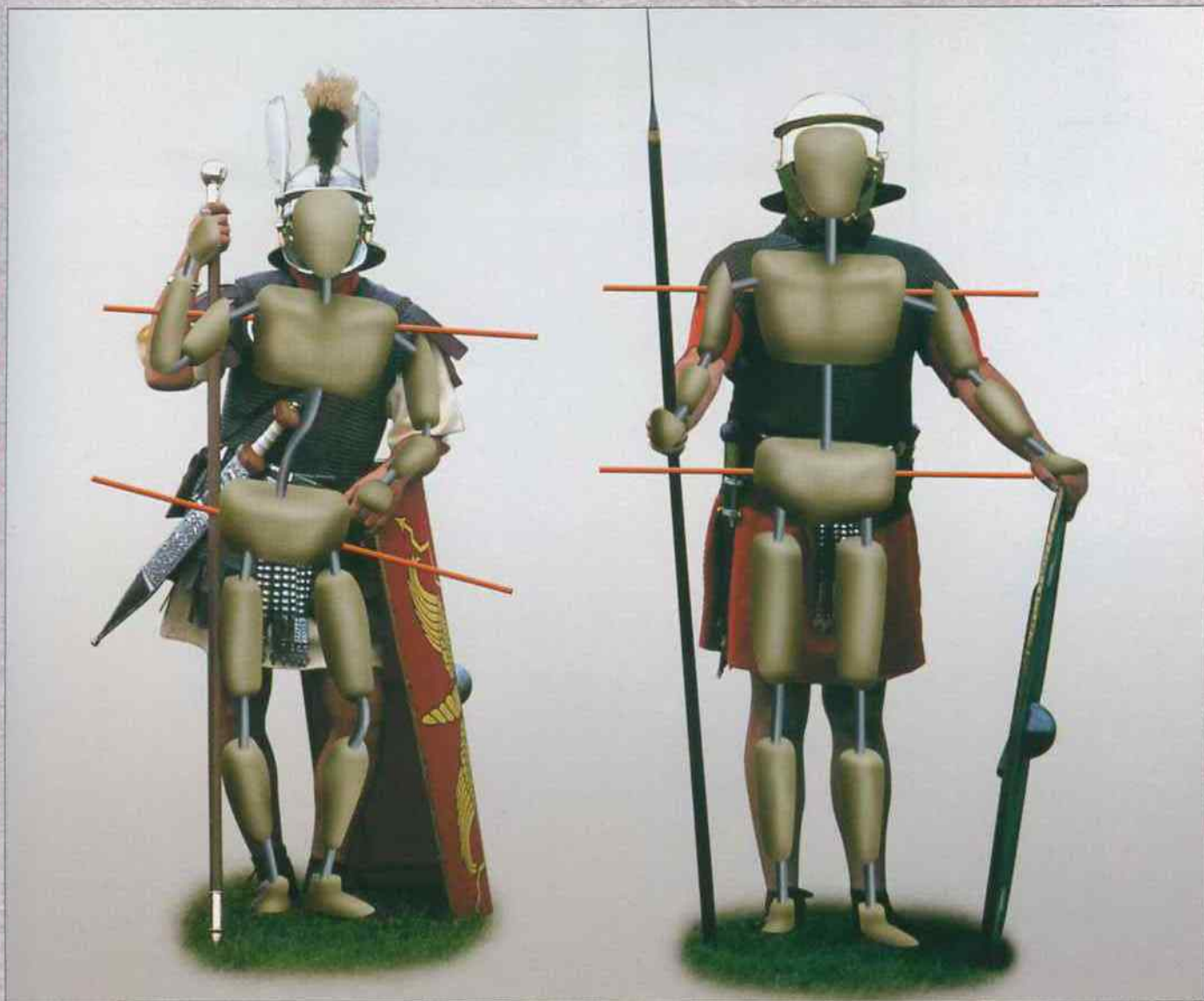
Sometimes it may be all too easy to exaggerate the poses (I know, I've been there myself) and go overboard with a character, but in my experience most modellers trying to establish a character figure are perhaps too careful. So be daring and experiment, progress can only come through exercise and the good old 'trial and error' process!

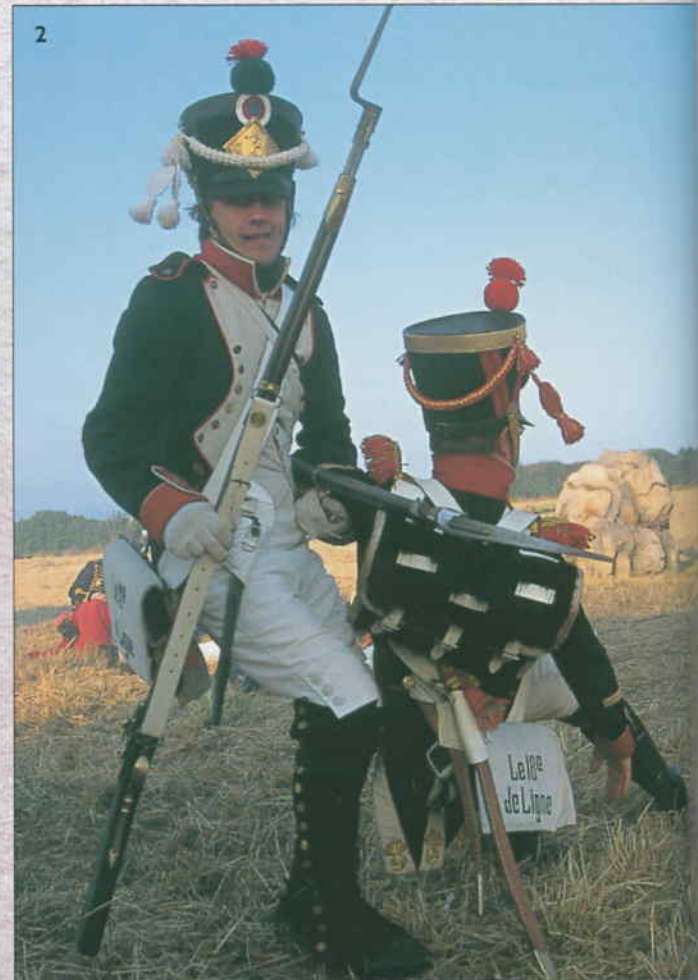
When I began doing these 'character' type figures, my most important

inspiration came by studying the Classical Baroque and Renaissance sculptors such as, Bernini, Michelangelo, etc. I still look through my art books every day, trying to capture something from these masters and it is here that we can find, perhaps, the best examples of what I am trying to achieve with the body language, facial expressions and hands.

The works of these masters shows what can be done in ways of describing an emotion and feel in sculpture. Why not try to do the same in miniature!

Note the contrast between the poses of these Roman soldiers. The one on the right is pretty static and shows no feeling, while the optio's pose is much more dynamic.





1. Head expressions are fairly related to body language as they provide useful information about present and past events.

2. A dramatic and dynamic composition, where the different poses of the soldiers show some alternate visual directions.

3. A three-level composition; some figures are on their knees while others are rising or standing up.





There is a dialogue between the mounted French general and his troops that also creates a composition dialogue. The big horse with the mounted man put into one side of the diorama is compensated by the troops standing on the other side.



Another example of head expressions: the gesture of the horseman during a cavalry charge - plenty of aggression, breaking the formation to start an attack.



Ring Mail, Creases and Folds

In this chapter I will discuss the sculpting of ring mail, creases and folds in clothing which seem to be a problem for some beginners who are just starting out making figures. I'm still learning to do these whenever I make figure and there really is no end to the learning process.

Let's start with ring mail. This is a part of a figure that a lot of figure modellers are afraid of, being perhaps intimidated of all those 'rings' to make. Actually, there is no real trick when doing ring mail and once you have the right tool it is not so difficult and only takes time and patience.

First of all it is important to study how real ring mail behaves, how it folds and how heavy it looks, hanging almost straight down over a person. Perhaps the best reference is to study photos of how re-enactors look wearing reproduction chain mail of the correct pattern.

I use a modified hypodermic needle with a carefully filed down tip to sculpt ring mail. You can ask your dentist about this tool, or try your local pharmacy. When this tool is impressed into the putty it leaves a 'C' shape. The trick now is to imprint a lot of these 'C' shapes in rows, altering the 'C' for each row. It is a good advice to sculpt only one arm, or leg, etc., at a time, since the epoxy putty will

start curing during the process. Take it from me,

making ring mail is a mixture of Magic Sculp and

creases (if any) copied from your references. Once you are happy with the shape, it is time to dust the putty with talcum to prevent the tool from sticking to it. The tool is pressed into the putty, using an even pressure for each impression: make up one row, then turn the tool round and begin on the next row. Make sure the 'C' shape touches for each row you press into the putty.

I usually spend about 50 minutes on a 54 mm arm, so take your time when doing ring mail and remem-



Two types of epoxy putties, Magic Sculp (left) and Duro. The ball behind was mixed from both putties and this is the mix I use for sculpting ring-mail.



Whenever possible I like to sculpt the ring-mail on a separate part, for example, an arm.



Putty being applied to an arm.



The putty is spread out evenly.

I've tried to do both arms at once and when I had finished the first, the putty on the second arm had already started to cure too much. The epoxy putty I use for

Duro, which I mix approximately 75% Magic Sculp and 25% Duro. This mix seems to be ideal for doing ring mail (to me that is.)

Spread the putty mixture over the surface and add the

ber it's not difficult, just time-consuming.

To achieve realistic creases and folds in different materials it is important to study how these look in real life. You can study how



The putty is dusted with talcum powder to avoid any tools sticking to it.

The first row of the mail pattern is pressed into the putty with the hypodermic needle tool.



The completed part.



creases and folds form just about every day, simply by looking at a people's clothing and how it behaves. Remember that the appearance of each wrinkle does have a logical reason for its formation and you should try to incorporate this in your work. Also, different materials will produce different types of creases. A well-used garment will have more creases than a new one. Here are some examples:

A cotton shirt has many small, sharp creases.

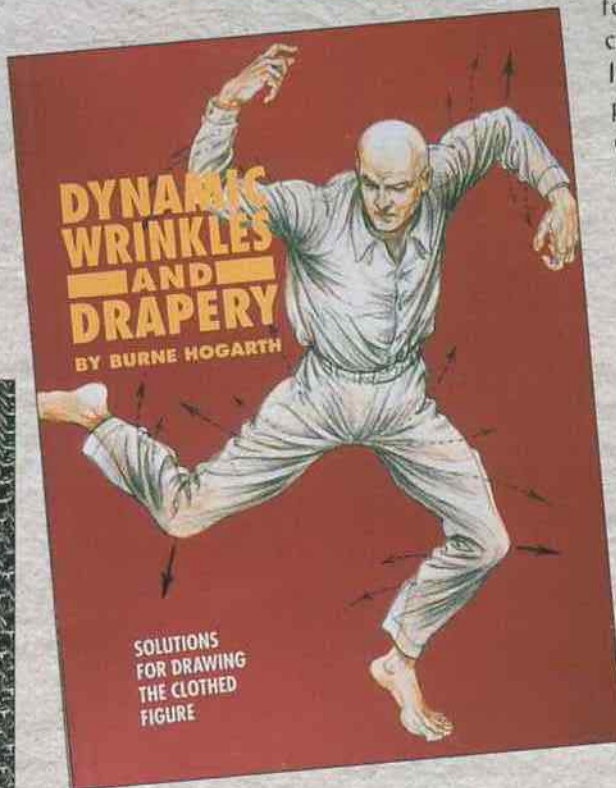
A cloth or wool jacket has many creases in the armpit and elbow areas.

A heavy overcoat has fewer and rounder creases.

I use Magic Sculp putty for representing creases and the tools I reproduce them with are the needle, a sable brush and the rubber-tipped tool. First I apply putty to the area and I smooth it out as much as possible using my saliva as the lubricant. Once the putty has been applied I leave it for about 15-20 minutes, to make it less sticky. Remember that freshly mixed Magic Sculp putty is very

soft.

After the waiting time is up I begin adding the creases and at this stage it is very important to know where to add them. I usually start with the tightest and smallest, working my way up to the bigger and softer variety. As with everything in life, practice makes perfect.



Before starting any modelling process, study a book on anatomy and observe how clothing behaves on the body.

A real ring mail with all these S interlaced.



Ring Mail



1. Ring-mail does not form small creases although there can be a few large ones, slightly marked depending upon the position of the limbs.

2. Note the direction of the rings in the ring-mail template.

3. Observe the horizontal direction of the rings on the torso, but note that they run vertically on both arms.





4-5. Clothing made of thick fabric where it bulges tends to retain its own form and this creates many little wrinkles in addition to those created by the figure's movements and positions of the limbs.

6. When modelling a piece of cloth, we need to consider the action of both the elements and accessories. We must also appreciate the positions of pressure wrinkles created by the body's actions.

7-8. Actions of the body determine the stress put on the clothes. See both sides are different with different wrinkles in the garments



9. During the Napoleonic wars the French army used very poor quality cotton cloth while the British army was supplied with much better quality raw materials because of the Indies trade. These are very tight trousers with small but marked wrinkles.

10. The figure's hand stresses the trouser fabric and creates some little wrinkles.

11. The bandolier and the many other straps create their own particular creases and folds.

12. The areas where the cloth gets wrinkled as on the lower parts of these trousers creates numerous little creases.

13. The glove at wrist level has long and deep creases while the fingers show short and superficial creases.



14. When modelling animal furs the general creases and volumes have to be created before texturing the surface.

15. The creases at wrist level are long and deep while the ones of the fingers are shorter and superficial.

16-17. This kind of fabric called is called drill and is thin and light. The creases are thin but deep. There are some subtle creases on the rear part of the trousers caused by repeated movements on the thin fabric.





A shirt made of flannel will have rounded, deep creases.



An army jacket made of cloth is worn over the flannel shirt. This kind of fabric is thicker and rough, and therefore any creases are rounded and shallow. This type of cloth is made from wool fibres.



20



Observe the undulating appearance of the flannel compared to the rigidity of the fabric. Usually, the quality of cloth deteriorated during war.

18



19



18-19. Leather is a very rigid material where any folds show up as really sharp creases with deep edges.

20-21. Leather boots have natural creases and folds.

22. This item is made of drill and being a thin and light material it wrinkles more easily.

21



22



Sculpting a Figure

In this chapter I will take you through the stages of a sculpting a 54 mm figure, step-by-step. For the subject I have chosen a gunner of the artillery regi-

ment from the army of Charles XII. The reason for this choice of subject is that the figure is wearing quite a plain uniform without any fancy detail, thereby enabling

us to concentrate on the character's body language and pose.

After some initial thought I decided on a pose with a very relaxed altitude and

body language. This is a simple character, with no fancy or elegant behaviour and could, indeed, be a typical private soldier from the army of Charles XII.

ADJUSTING THE POSE



1-5. Using the resin parts I mentioned earlier in the book, this figure was animated into the desired pose. The shoes are pre-cast resin items from a master made by the author and all the joints have been filled out with Magic Sculpt. Note the arch of the back and that the feet are pointing slightly outwards.





12. The hands are super glued to lead wire and inserted into pre-drilled holes.

6. The head (taken from the spare parts box) with an appropriate expression has now been added.

7-8. Observe the angle of the neck which is very important when posing figures.

9-10. The shoulders are slightly sanded down to show a more natural and relaxed pose. No stress here!

11. The hands were cut from an Airfix Multipose kit; the fingers are removed to be later replaced by sculpted items.

13. Holes in the torso. Make sure the arms are the right length! Study your anatomy books.

14-15. The arms have now been positioned and animated into the desired pose. Be careful regarding the correct elbow joint; as always, study your reference books. A belt cut from plastic card has also been added and attached with super glue.





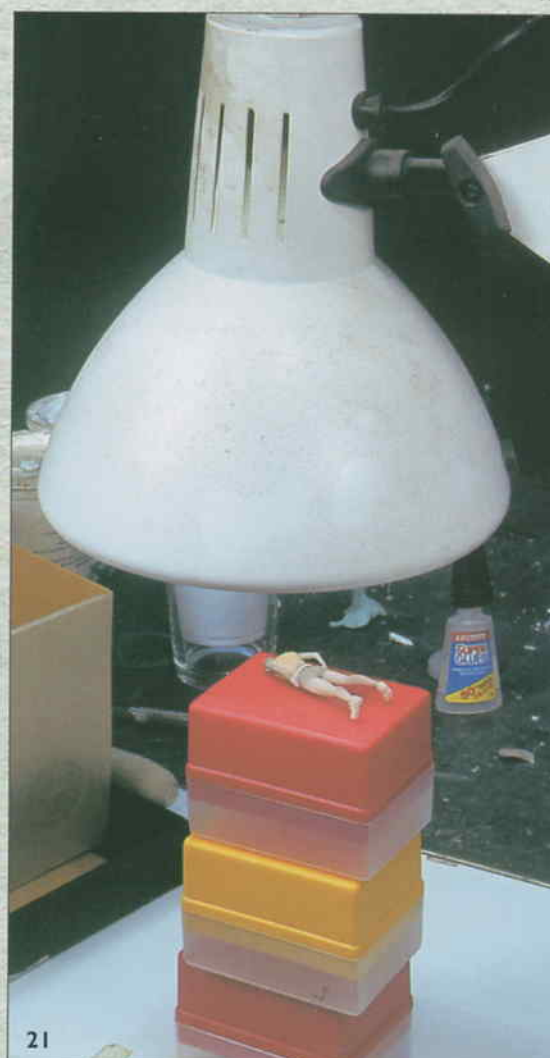
16-19. The arms, shoulders and shoulder blades have now been built up with Magic Sculp. Note how the elbows have a pointed definition, indicating the bone structure. Also, note the build up of the shoulder blades, a very important feature in this pose.



20. Frequent use of a magnifying

glass is useful to check the work.

21. Speed curing the figure under the lamp.



Sculpting the stocking. Whenever possible I like to use my fingers to apply the putty as they are extremely sensitive: you too can exercise very fine control this way.



FABRICS

• MODELLING TRICKS •



The belt for the stocking being cut from lead foil. Note that masking tape is being used to avoid any movement when cutting.



With a brass needle tool add the narrow and tight creases, using saliva as a lubricant to avoid the tool from sticking to the putty.

The belt is pressed into the soft putty. Sometimes a drop of super glue may be needed to fix it in place.





22



23



24



25



26



27

22. Sculpting the creases nears completion.

23. After the putty has cured to a leather-hard stage (around 40 minutes in this case) the top is trimmed to shape to obtain a sharp edge. I use the scalpel dipped in water for this process because it makes the putty lift off easy.

24-25. Putty for the trousers has been added.

26-27. Creases being added.



28



29



30



31

28-31. Body part of the jacket being added. Once again the fingers are used as a sculpting tool



The jacket complete with creases. After this has cured putty is added to form the jacket sleeves.



Putty has been added to the front to form the opening of the jacket.



The putty being smoothed out.



Creases being sculpted, starting with the smallest and tightest ones.



Sculpting of the sleeves is now complete. The front opening of the jacket was trimmed down with a scalpel.



Sausage-shaped rolls of putty are added to form the cuffs.



The same procedure is followed for the collar. The putty in both cases should be very soft when added to the figure.



Cuffs and collar are completed and trimmed to shape.



Lifting the collar slightly away from the jacket adds more depth and interest.

THE EARS



Small pieces of putty are applied to sculpt the ears.

Trimming down to shape and size. When sculpting ears, good references are a must as shape and form are complex.



The other ear! I always sculpt both ears at the same time to get a 'matching pair.'



32



33



34

32. Front view, checking the correct placement of the ears on the head.

33. A completed ear.

34. Both ears completed. A scarf has been added from Duro putty.

THE HAT



35

35. No, it's not pizza dough on his head! A piece of putty has been formed over his head to form the shape of the crown for his tricorne hat.

36. When the putty is half-cured it is trimmed down with a scalpel.

37. The back end of a tool is gently pressed into the top of the crown to get the correct shape.



36



37

• MODELLING TRICKS •



For the brim Magic Sculpt is rolled out thinly using a rolling pin and talcum on a mirror.



Using a template the brim is cut out from the putty. The crown is now placed in the centre of the brim, using a tiny drop of super glue to secure it in place.



When almost completely cured the putty is carefully lifted off the head and set aside to cure completely. When fully dry it is sanded down just a little. The result is a hat (without brim) that sits perfectly on the figure's head. By making the hats separately, we can angle and adjust the tilt of the hat on the head and thereby create several different characters.

38. The brim is turned up, to form the tricorne's unique shape.

39. The completed tricorne.

40. Inside the completed tricorne. When completely cured, the brim is very gently cut away using a scalpel to form an aperture into the hollow crown.



41-44. The hat is placed on the head in different angles, creating different attitudes.

THE HAIR



The hair is added from a mixture of Duro and Magic Sculp. By adding the hair after the hat has been placed on the head gives the impression that it is sticking out under the pressure of the hat. The tricorne appears to be firmly in place on the head.



The hair is detailed using a scalpel and a brass needle. When sculpting hair I find it effective to slightly curve the hair strands, in a 'S' shape which will add some 'life' and interest. Also, make sure it is not symmetrical in shape and design and aim instead for a more natural shape with balance.



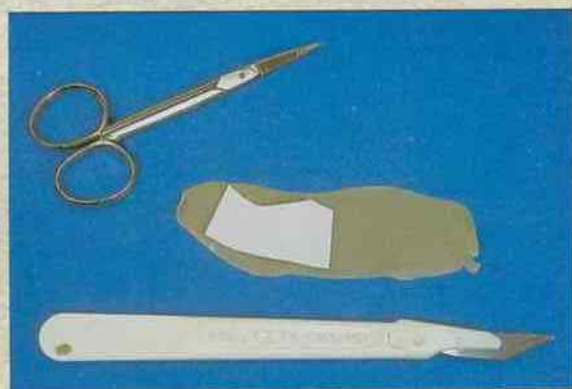
Hair sculpting complete.

FABRICS AND POCKETS



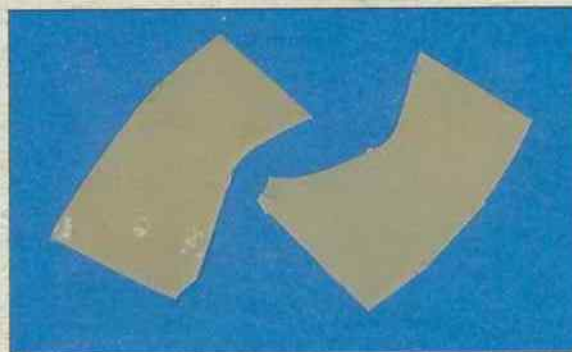
Magic Sculp is prepared to be rolled out to create the jacket skirts.

• MODELLING TRICKS •



A paper template is used for cutting out the skirts. Here I like to use both a pair of scissors and a scalpel.

The jacket skirts, now ready to be added to the figure. I always use a drop of super glue to fix it in place.



The skirts in place.



45



46

45. I've added the pleats on each side with freshly mixed putty over the fully cured skirts. I have also sculpted the sword frog hanging from the belt.



47

46. The skirts and added pleats are carefully sanded to get a smooth area without any imperfections.

47. The shape of the pockets marked on with a pen.



48

48. The pockets sculpted and trimmed to shape. Note that the pocket flaps have been slightly lifted to improve their appearance, just like we did with the collar.

•MODELLING TRICKS•



The figure being carefully speed cured under the lamp. Note the blob of putty next to the figure which is easy to check as an indication to when the putty is fully cured.

THE HANDS

Sculpting the hands - mostly the fingers! First step is to add a small piece of putty.



The putty is trimmed down to shape.



The fingers are sculpted using a scalpel, the brass needle and a sable brush. When sculpting hands I highly recommend studying reference books, since the hands are almost as important an important part of a person's character, as the face.



The hands have been dusted with talcum to reveal any imperfections.



The figure's left hand being shaped, starting with the first two fingers.



The left hand completed.

THE BELT, THE BUCKLE AND THE BUTTONS



Belt tongue cut out from lead sheet.



The tongue is super-glued in place. A belt loop has been added from putty.

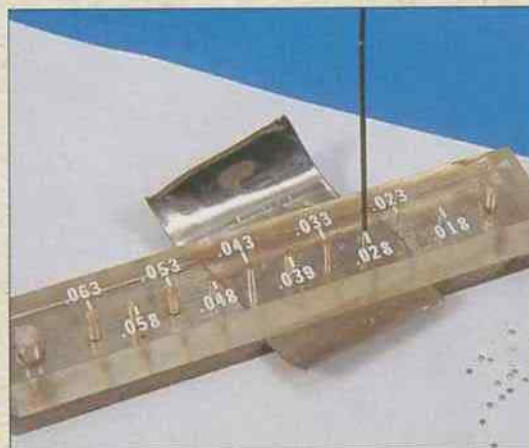


The belt buckle has been glued in place. Here I used white wood glue as it gives extra time for adjustments. (This glue dries surprisingly hard.) The belt buckle is a Historex spare part.

Mark the positions of the buttons with a pen which makes it easier to get them evenly spaced.



• MODELLING TRICKS •



The buttons being punched out from lead sheet with a punch and die set. By using soft lead sheet (as opposed to plastic card) dome-shaped buttons can be formed which were used by most regiments from this period.



49. The buttons are picked up with a moist brush and glued into place with wood glue. As with the belt buckle, this glue provides extra time to adjust the final positions of the buttons.

50. The buttons have been applied to all relevant areas - including the tricorne.

51-52. The completed (well almost) figure. The sword was constructed from plastic card and putty and added after the figure was painted. Note that button holes in the



jacket are painted on, and not sculpted. The same goes for the holes in the belt.





Converting and sculpting a 90 mm mounted figure

In this chapter we'll discuss the conversion and scratch building of a favourite subject of mine, Ulrich von Jungingen, Hochmeister of the Teutonic order who was killed at the fatal battle of Tannenberg in 1410. For many years I had wanted to do him in miniature and when the people at Accion Press kindly gave me the 90 mm mounted knight of 1400 from Andrea miniatures, I knew this was perfect for what I wanted. (Muchas gracias amigos!)

Once I started examining this figure I slowly began building up a picture in my mind of what I wanted to do. The pose I sought was to show the hochmeister, turning to the viewer as he is scanning the battlefield, ready and alert.

When working with metal figure conversions, I highly recommend that you use a hobby knife with a heavy blade for the heavier cutting and carving. Use the scalpel for finer and smaller areas, where the finer blade doesn't break so easily.

First I concentrated on the horse and, as it's a 90 mm metal horse, it is quite heavy! I elected to use the caparison that came with



The horse with a replacement neck and head. The caparison on the neck has been built up with Magic Sculp putty. The part covering the head will be sculpted in the next stage.

the kit, because it is very good with natural creases and a quilted lining. After I had assembled these parts with two-part epoxy glue (for extra strength) I then turned to the head and neck.

Here I wanted some more animation, so I decided to build up a new

neck. I made a mould of the horse's head and cast it in resin. The reason for this is that the cast metal neck and head was a single piece, so I decided it was easier to cast this part in resin and then saw off the head. I really don't like cutting big metal parts.

The cast resin head was

mounted on a brass rod then bent into the right pose and the heck was built up with putty. The new pose of the neck added much more movement and drama, and was just what I was after.

Once the putty had fully cured, I built up the caparison covering the



The completed horse, primed to show any imperfections. Note the closing ties at the front of the caparison, made from lead sheet.

The figure during construction. Note the resin cast bassinet, hollowed out to take a new head. New ring mail has been sculpted. Also, note the creases in the mail curtain, (aventail) caused by the movement of the head.



Observe how the rider is now looking over his left shoulder, adding movement and animation to the pose.

neck and head with a thin layer of Magic Sculp. Creases and folds were added, carefully matching the sculpted folds on the rest of the caparison. Several slits were also added (with the scalpel) at the front to represent the opening. Lead sheet was used for the bands that tied the caparison together.

When adding the tail to the horse, I was careful to pose it going in the opposite direction to the head. As you will see, I also posed the figure looking in the opposite direction of the horse's head. These 'animations' will add a lot of movement and drama to the overall visual impact.

Once the horse was completed, I turned to the figure itself. Here there was to be a lot more to do than on the horse. There were several things I wanted to change, a new head, new positions of the arms and new angle of his back.

First I sawed half way through the figure's waist, and then very carefully bent it backwards to get the correct angle I was looking for. The gap was filled out with Magic Sculp and new creases added. Next came the arms. The sculpted ring mail on the upper part of the





The rider being tested for fit on the horse. Note how the horse's head moves in one direction, while the rider turns his head in the other direction. This is a very important point when animating figures.

The same stage viewed from behind. Once again, note the different directions of movement.

arms was filed off and I then drilled holes and inserted brass rods for stability, then the arms were glued to the body in their new positions. Note how the figure's right arm goes back, while his left is more forward. Also note the shoulders, how his right shoulder is lower than his left. This pose adds movement to the figure's pose, turning his head and looking over his left shoulder. New ring mail was sculpt-

ed from my Magic Sculp/Duro mix.

For the head I wanted to show a hard looking and determined face. After some searching in the spare parts box, I found a resin head that I could convert to my purposes. Using Magic Sculp I lowered his eyebrows, and added a beard and moustache. The original head and bassinet (helmet) was moulded and cast up in resin. The head was sawn off and the resin





The final stages in modelling the figure. The cape is now complete and the visor has been added to the bassinet. Note the brown areas at his waist; these have been painted with Humbrol natural wood, to show up any imperfections.

The cape being modelled on the figure from rolled out putty. Note the movement of the cape, matching the movement of the whole piece. Also note the support for the drying putty helping to keep its shape.

bassinet was hollowed out with a small burr in my mini drill. The bassinet was then placed on the figure's head, making sure it was properly seated.

More new ring mail was sculpted to form the mail aventail hanging down from the bassinet and note how the folds appear in the ring mail, produced by the way the figure turns its head.

The final part of this project was to model the cloak and, like the rest of the figure, I also wanted to show movement and drama. The cape was made from rolled out Magic Sculp, using plenty of talcum, and was carefully put onto the figure. Once it was in place I added the big flowing creases with paint brush handles and used 'Blu Tack' to support it while the putty cured.







Vignettes and Dioramas

There is one thing to remember when modelling vignettes and dioramas, even before touching the putty or a paintbrush, and that is composition and planning. It doesn't matter if you are using two or 20 figures, whether it is a mounted scene, Napoleonic or Medieval, the scene has to be well planned and composed. To begin with, here are some points you should consider and remember:

BALANCE

We want the scene to be balanced, but not symmetrical. An example of this can be a figure holding a spear or pike on one side of scene and to balance this we can place, perhaps two figures on the other side of the scene.

Also, for example, a mounted figure on a veering horse might look better balanced with two figures on the ground, one perhaps even kneeling down?

By proper balance in the scene you are composing, the viewer will focus on the story itself, but not on a figure placed off-balanced or any symmetrical placed figures.

LEVELS

I like to compose my scenes with several levels with the tallest models at the back and the shortest

in the front in order to create natural backdrops.

Examples of this would be a mounted figure, one standing figure, one kneel-

ing figure and one lying dead on the ground. By placing the mounted figure in the background the standing figure next, with

the scene with a natural backdrop.

Consider another example with two running figures and a dead figure on the ground. Place the dead figure in the foreground with the two running ones behind it.

An example of this can clearly be seen in my 'Disaster on the Ice' diorama where I placed the dead figure in the foreground, followed by a standing figure, followed by a mounted figure, all creating different levels and that



The elements are aligned following a downward rhythm. Putting all the elements in only one row doesn't seem very interesting and does nothing for the composition.

There is more complexity in this scene where some elements have been added and put in at different heights.



A horizontal form will contrast with two vertical elements.

the kneeling figure in front, and finally the dead figure in the foreground, four levels are created for

'natural backdrop.' Having several levels in your scene adds extra depth and more interest to your work.

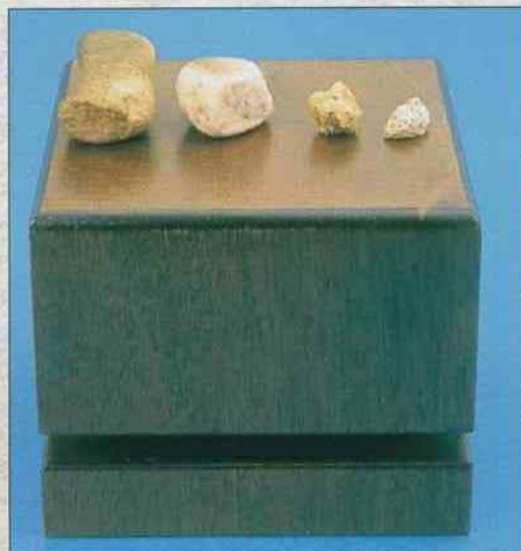
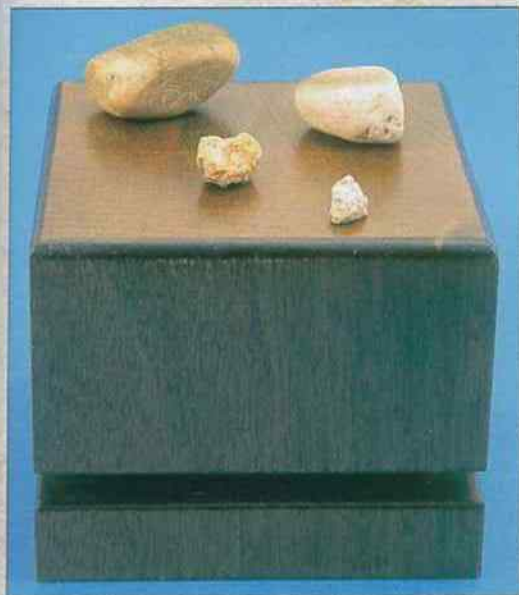


DEAD SPACE

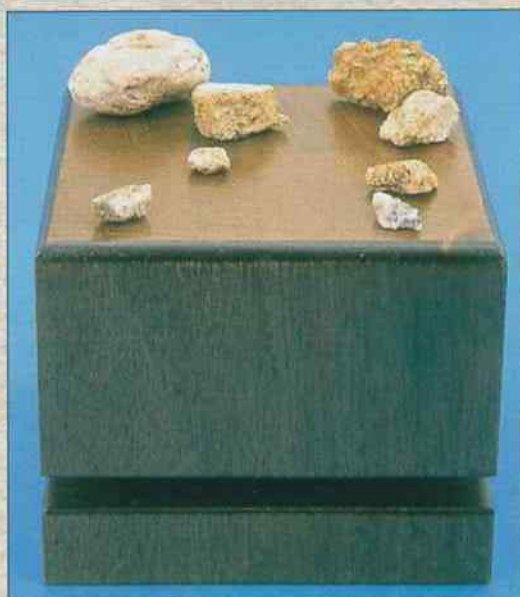
This is one thing to avoid at all costs. By 'dead space' I mean using too big a base in comparison with too few figures. The rule is to use a base and ground work that barely surrounds the figures in the scene. When done properly, the viewer will have

the impression that the scene is part of a bigger scene and story and just like a slice of a cake that has taken from a bigger cake!

By minimizing the 'dead space' in a scene, the focus will be on the figures



Stones have been put on the ground in an uninteresting way. The whole set has been aligned in parallel with both sides of the wooden base - and there are too many obvious 'dead spaces'.



In this composition the rhythm has been broken by putting pieces of different sizes on the ground; nevertheless the scene doesn't really seem equal.

Stones of different sizes can be used for making lines that go in very different directions, with larger ones to the rear.

Putting these in the foreground would be a mistake because the spectator would not be able to see the smaller items.

TELLING A STORY

I can't emphasize enough the importance of multi-figure scenes telling a story. By trying to tell a story you will generate interest and capture the attention of any viewer looking at your scene. The scene way show figures full of

courage, desperation, anger, etc., all telling a story of a moment of time in history. Examples of this can be retreating soldiers, all worn out and tired, victorious soldiers all full of amusement and exaltation, or charging soldiers full of violence and anger.

When planning a scene and the story it will tell first decide what feelings you want to convey to the viewer. Concentrate on a particular event within a bigger one, because the more concentrated the scene is in its storytelling, the more you will grab the viewer's attention. Examples are my Wisby diorama where you can see (and feel) the victorious king Waldemar riding across the battlefield, full of dead soldiers. The viewer can instantly tell of the hard fight and mas-

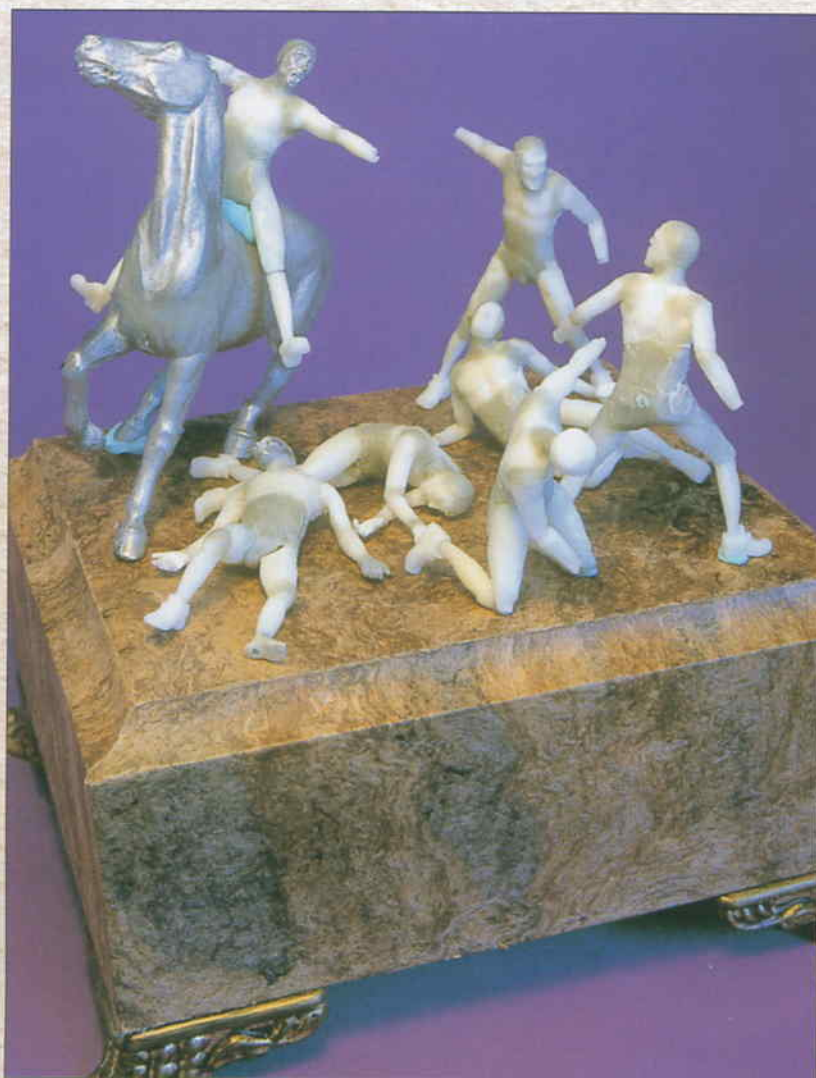
only, whereas using too much dead space may result in the viewer thinking the figure has just been put on a base without any thought behind it.

An example is my Poltava diorama where I used a minimum of dead space, and thereby created the feeling that the scene is part of a bigger one. The viewer can imagine the battle going on around the scene I created. Another example is the Lake Peipus diorama, ('Disaster on the Ice') where the viewer can feel and imagine the Russian soldiers surrounding the Teutonic knights.

sacre of the battle, where the King is seen literally riding over the dead, while a standing knight is about to put his sword back into its scabbard. There's no question what has happened, who is the conqueror and who are the victims!

All these points make up the composition and planning I mentioned ear-

The Poltava scene composed and planned with the bare mannequin figures on the base.



To round up I'd like to mention that I usually plan and compose a scene by first making some sketches, etc. The more figures in a scene, the more planning it needs and with more figures, it's important that you have to consider the composition. When a scene is properly planned and composed, there's only the sculpting and painting left. Remember, for vignettes and dioramas, composition and planning is everything!

Here we can study the different levels in this diorama going from the mounted figure, through those standing and kneeling to the ones lying on the ground. Also, note the interaction between the mounted general, the shooting officer and the private with the back to the viewer who are the 'leading players' in the story. The rest of the figures in the scene are mainly 'supporting actors.'

lier and by keeping these points in mind you can create a scene that is interesting to the viewer and also at the same time, tells a story full of emotions. The wonderful thing about creating a vignette or diorama is that you can tell so much more than with just a single figure.

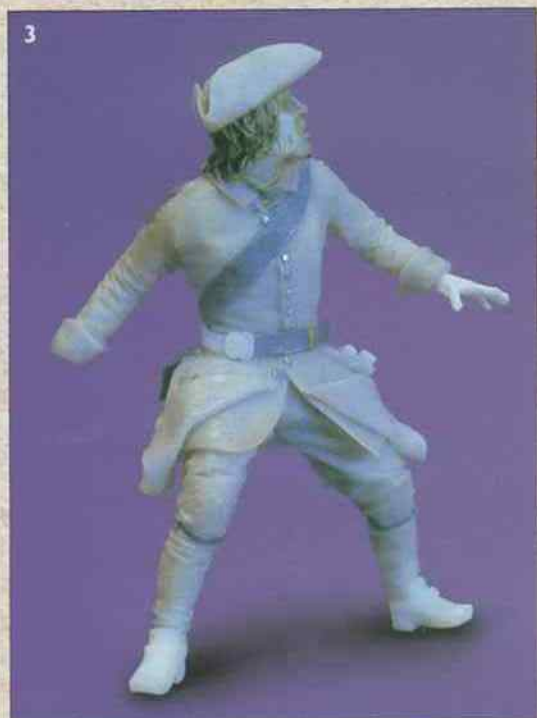
One thing I can add from personal experience is that if you sculpt five or seven figures for a scene it really doesn't add so much extra work. I soon get stuck in a 'sculpting phase,' and doing the odd extra figure for a scene is not that much extra work.





1. The wounded figure, twisting his body, full of pain and agony.

2. A dead soldier. Note that his left shoe is missing.



The other dead soldier in the scene. Note how his pose differs to the other dead figure.

3. The hesitant soldier in the diorama wonders whether to stay and fight or to run away and escape the massacre. Note his body language; he is not really moving in any direction, but thinking what to do next.

4. The wounded soldier on his knees. Note the distribution of the weight of his body indicates he is almost about to fall over.
4. Vue avant de la même figurine.





The general's horse is an Andrea Iotti casting with the saddlecloth and harness made from Magic Sculp and rolled Duro. The saddle is a converted Historex part. Note how the mane is moving forward, adding 'movement' to the pose.



The general reins in his horse, his left arm desperately outstretched, his hand grasping in vain to his leering men. Note the rolled out putty for his coat tails, plastic card for the belt and now the wig he is wearing is moving forward as he curbs his horse.

Close up of the general. Note the desperation in his facial expression, as he tries in vain to stop his men from escaping the battle.



The wounded figure. Note the grimace on his face, showing the agony and pain.



The hesitating soldier is one of the 'main actors' in the diorama.





9



6. The diorama seen from the rear. Note the 'story' between the three main characters.

7. Front view of the General figure. Note how desperately he is trying to escape.

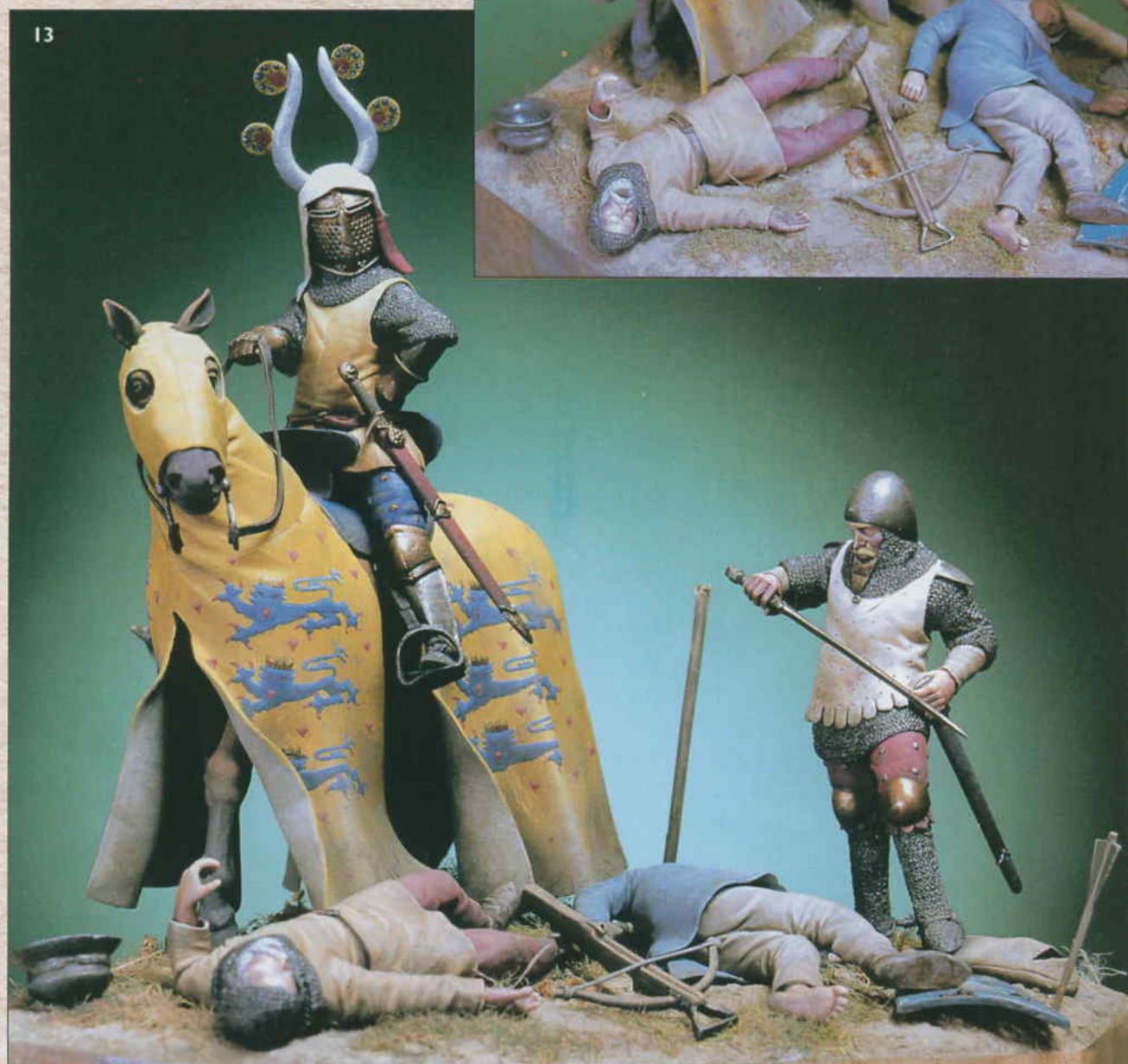
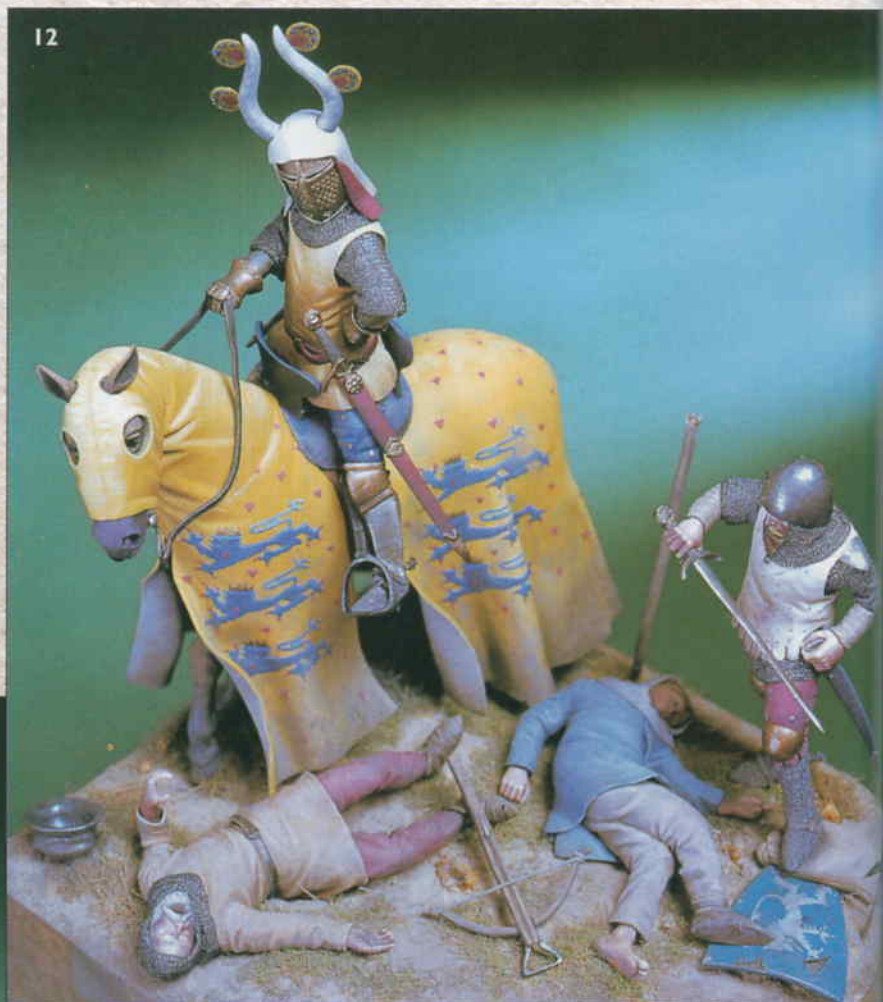
8. The diorama viewed from above reveals the different 'directions' in the scene; the pointing officer, the general shouting at his men, and the private holding his musket.

9. Close up of the mounted winged hussar. Look at his facial expression as he is ready strike a powerful downwards blow with his sabre.

10. A two-figure vignette of the battle of Kirchholm fought in 1605. Observe the levels and the different directions of movement.

10





14



11. The standing knight. Note the putty mix for the ring mail studs made from lead sheet in a 'punch-and-die' set. Also note the 'movement' created in his body for this pose.

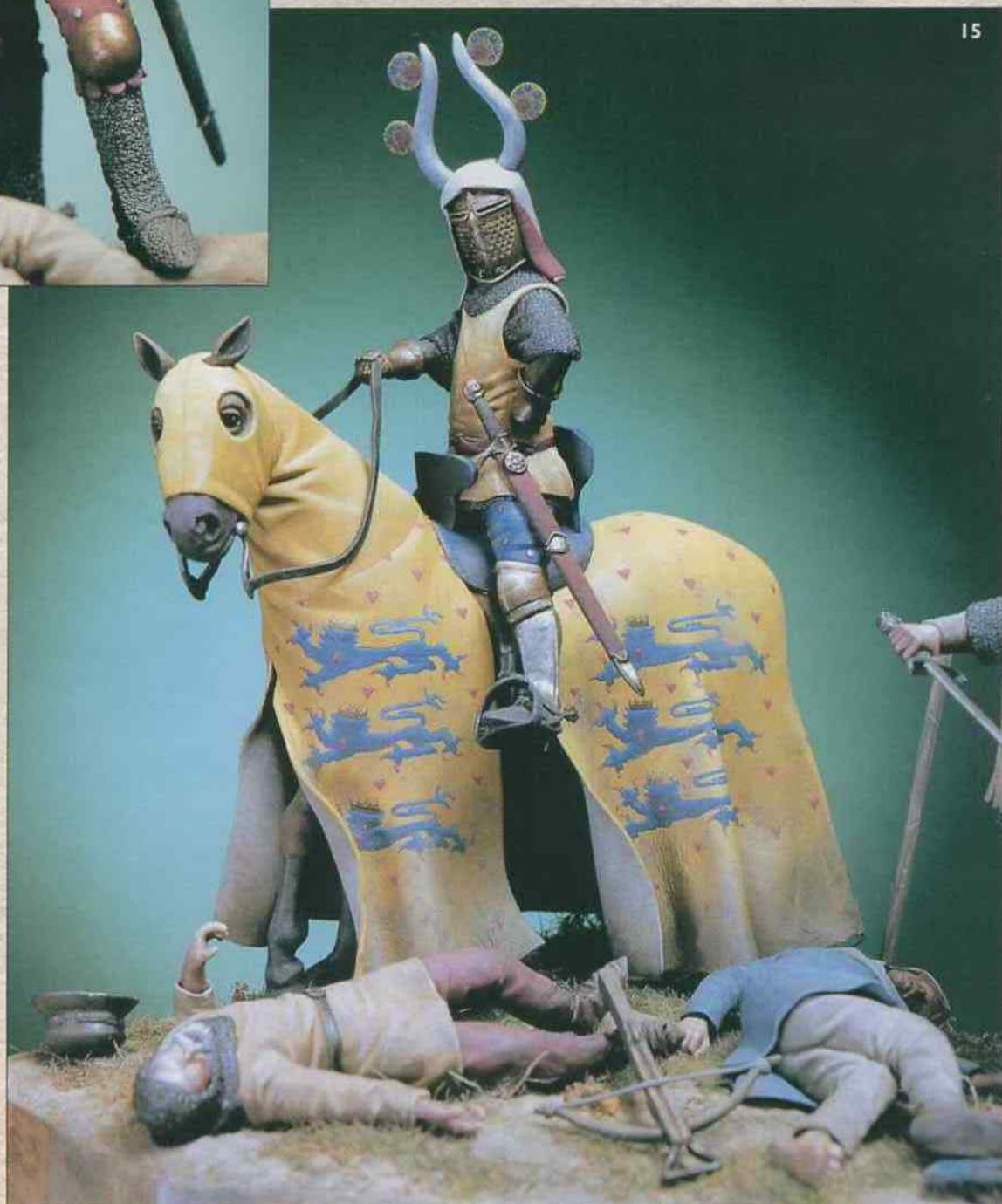
12. This view of the scene reveals the mounted king, the standing soldier and the dead on the ground.

13. Battle of Wisby 1361. The victorious King Veldemar is riding across the battlefield filled with dead soldiers.

14. The standing knight figure, painted and placed in the scene.

15. The king on his horse. Note his self-assured and arrogant pose. He is the undisputed victor of the battle.

15



The Battle of Lake Peipus diorama where we can study the composition of the figures and how little 'dead space' there is in this scene. The bishop in red forms a natural focus point to the viewer, whereas the remaining scene appears mostly in white and greyish tones.



An excellent example of different levels where the highest one forms a natural backdrop for the scene in this tight composition.

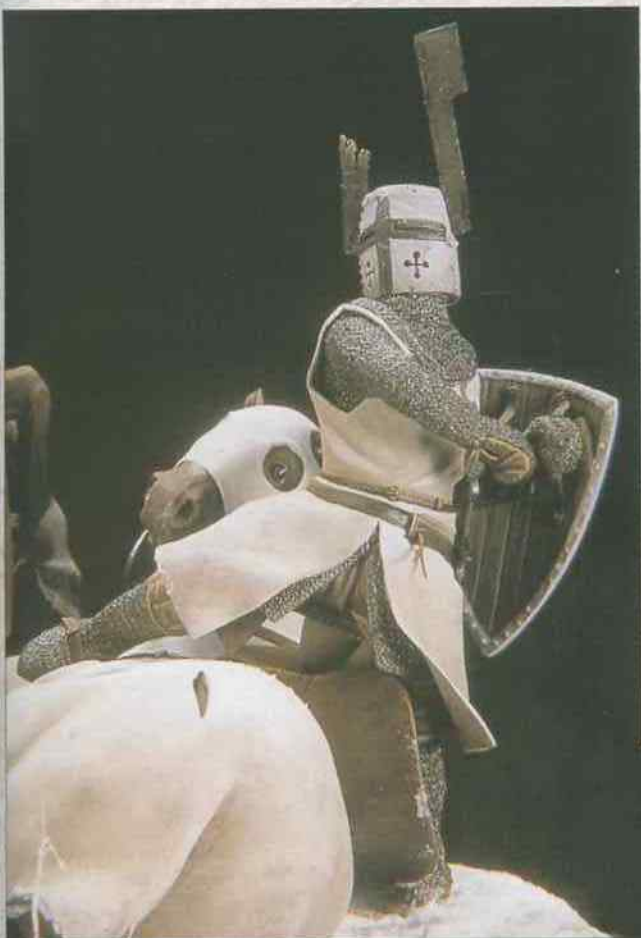


Figure Gallery

In this final chapter I would like to show some figures that illustrate different poses, characters and animations which hopefully will provide inspiration to the reader, as well as illustrating several points made in this book.

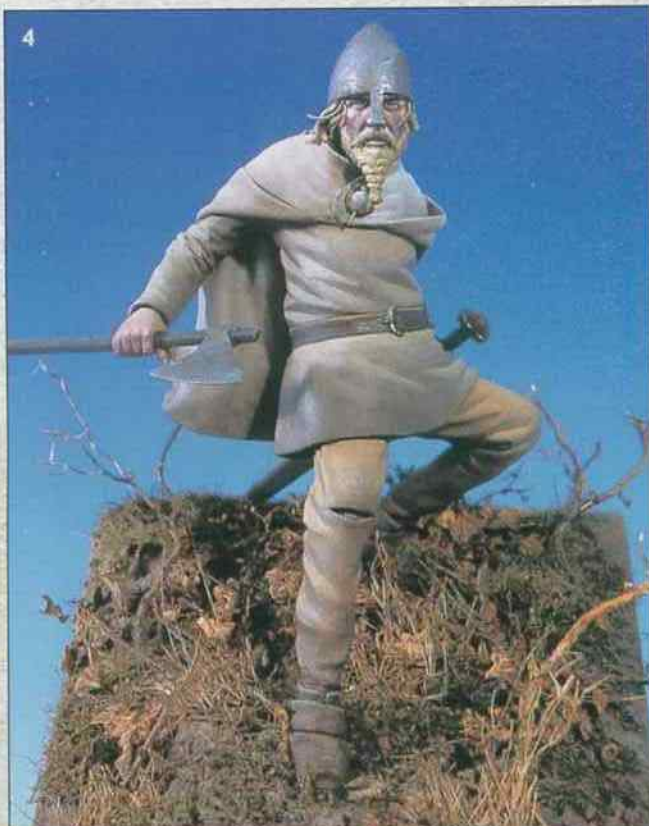


1. The simplest of conversions: the head has just been turned to look in a new direction, but a small change that make a stock figure much more interesting.

2. A mounted Teutonic knight, the upper body of which was scratch built. The head is an Andrea part with a beard added. (Note his angry and determined expression.) The remainder is an Elisena kit.



3. Henry V at Agincourt is a 54mm Andrea Miniatures conversion. Here I wanted to show 'movement and action' by turning his torso and head. Note how the stake in the ground balances up the direction of the sword.



4. The lack of balance caused by the slanting ground is offset by the extremities acting as a counterweight.

5. New arms and a colpack were added to this Metal Modeles' hussar. Note the casual 'at ease' pose of this officer and the angle of the colpack which balances the pose of the figure.

6-7. Study the arch of the back on this 'Hussar de la Mort' figure. The pelisse is a Metal Models' item, the remainder of the figure is mostly scratch built.



8

8-9. Two photos of an exhausted Lancer of Berg Trumpeter, with drawn sword and ready for the final assault. The trumpet is a Metal Modelers' item, the sabre a Historex spare part.

10. Contemporary photos were used as inspiration for the pose for this French grenadier in Crimea..



9

11. This Pegaso figure conversion shows how the body is 'moving' in one direction, while the head is looking in another direction.

12. A Swedish grenadier standing at ease; note the angle of his mitre cap. The sword and bayonet will be added at the final stages of the painting and Blu Tack is used to support his raised right foot.



10



11



12

A 54 mm, scratch built Swedish life guard officer. Note the 'movement' of the body (hips and shoulders) in this elegant pose of this high-ranking officer. The head is a Mussini item and all gold lace is painted on and not sculpted. As with an earlier example, again study the arch of the back.



13. A Swedish officer c.1699. The first photo shows the naked body in the desired pose. (Note the belly of this older and less than athletic officer.).

14. Second photo shows the completed figure before priming. Note the little finger on his left hand.

15. The final photo shows the painted figure. Once again, all lace is simply painted on.

16. This master figure for Art Girona shows Colonel Le Pic in a classic and elegant pose, clearly indicating his high rank and status.



Observe the pose and body language of this French citizen of the revolution. He is clearly not of the French aristocracy! The head came from the spare parts box, the clogs and pitchfork are Historex items and the rest is scratch built.





An example of a running figure - full of action and movement. Note how the figure has been placed off balance to further emphasize movement. Also, study the expression of this Aztec Warrior; he is clearly running towards the enemy without any fear. The figure was scratch built, the head is a converted Andrea item and the shield was cut from plastic card.

A 120 mm Lancer de Berg standing in a very relaxed pose, almost showing off his lovely uniform, is a scratch built master figure for United Empire Miniatures. The sculpting of the czapska headgear was something that the author will try to avoid in the future! Note how the angle of the plume balances the pose.



The painted figure on an appropriate and interesting groundwork which complements the pose. Note the painted-on insignia on the mitre cap, the torn jacket skirts and split seams in the arm and waist areas of his jacket.

One of the author's favourite creations and probably the most time-consuming. Capturing the relaxed pose of this guard grenadier trumpeter, leaning on a railing, took some time to get right. Note the rotation of the hips and his angle of the head.

The trumpet with its engraved banner took a fair amount of time to do! (A 120mm scratch built master for United Empire Miniatures.)





Vlad Tepes. Here I wanted an evil expression on his face, quite suitable for this character.



A 54 mm Landsknecht - another master for Elite. The whole figure was scratch built with Magic Sculp, right down to the sword blade!.



Ensign of the Bremen Regiment is another figure from the Swedish army of the Great Northern War.



A scratch built master figure for Elite Miniatures of a Varangian guardsman. The author used his own face for inspiration when sculpting the head on this Norseman in foreign service!.

17. Jean II, 'Le Bon' after the disastrous battle of Poitiers 1356. The King has lost his army and his crown. This is a 90 mm Pegaso conversion with a scratch built head and a new ring mail aventail. Note the angle of his head and the expression on his face which is full of sadness.



The painted figure is, once again, a simple figure loaded with character.

18. La femme de la Republique. A 54 mm scratch built figure with a Historex resin head. Note the angle of the head, the pose of her left hand on the hip. For the braiding on the front of her dress stretched sprue was used - and a lot of patience!

19. A Norman knight struggling under the weight of his hot ring mail and heavy equipment on his way to Jerusalem during the first crusade. Note the angle of his helmet.



20. A very simple figure of a Teutonic trumpeter, with very little detail and plain clothes, this figure is all about pose and character. Note the different directions of the body and hat, the trumpet and the scabbard all creating balance. A converted commercial head was used and the rest was scratch built. Lead sheet was used for the trumpet banner.

21-22. Marie Antoinette at her trial in 1793. A scratch built figure with Historex shoes. Note her body language and expression; even though she is tied up and standing at her trial in simple clothes, she is still a queen and an aristocrat clearly shown by her pose and especially the angle of her head. She may be a prisoner, but she retains her royal character and personality. A figure the author had wanted to do for some time.

23. The painted figure of this Queen is, once again, a simple figure loaded with character.





Note the slow movement of this grenadier walking in the Russian snow. His head is turned down to avoid the chilly wind.

