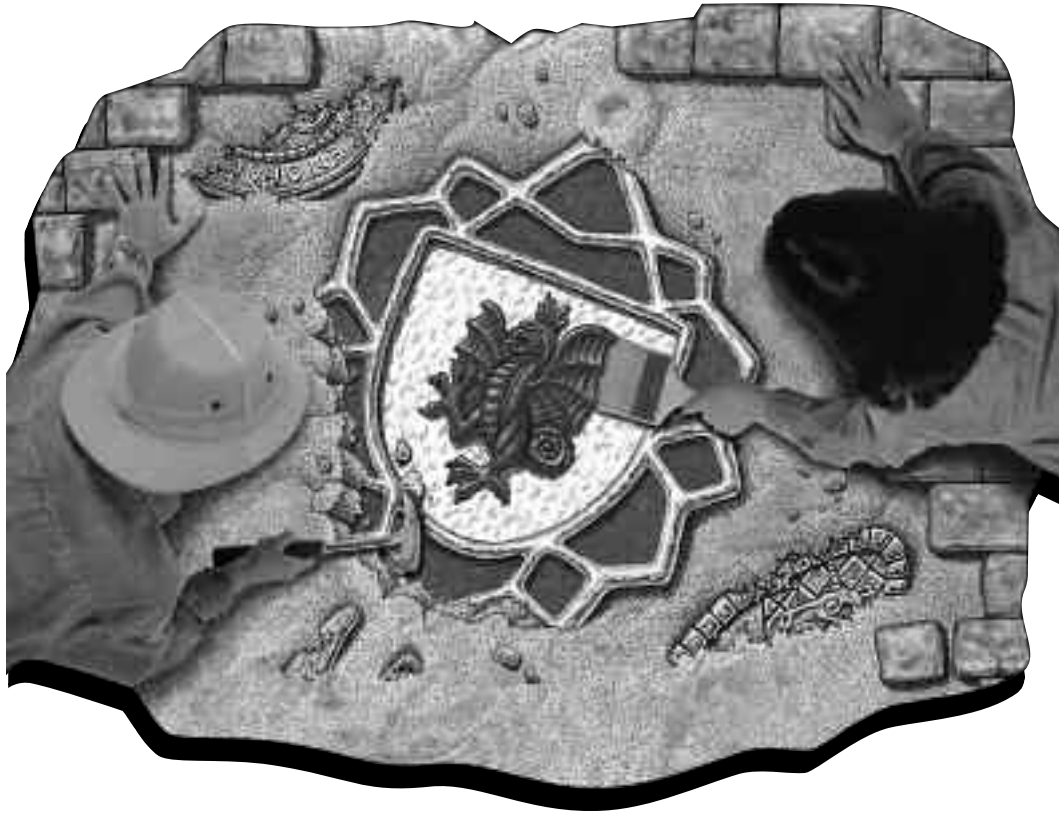
Ages 7 & up

BURIED TREASURE CASTLE DIG!™ GUIDE BOOK



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WARNING: CHOKING HAZARD — Small parts.
Not for children under three (3) years.

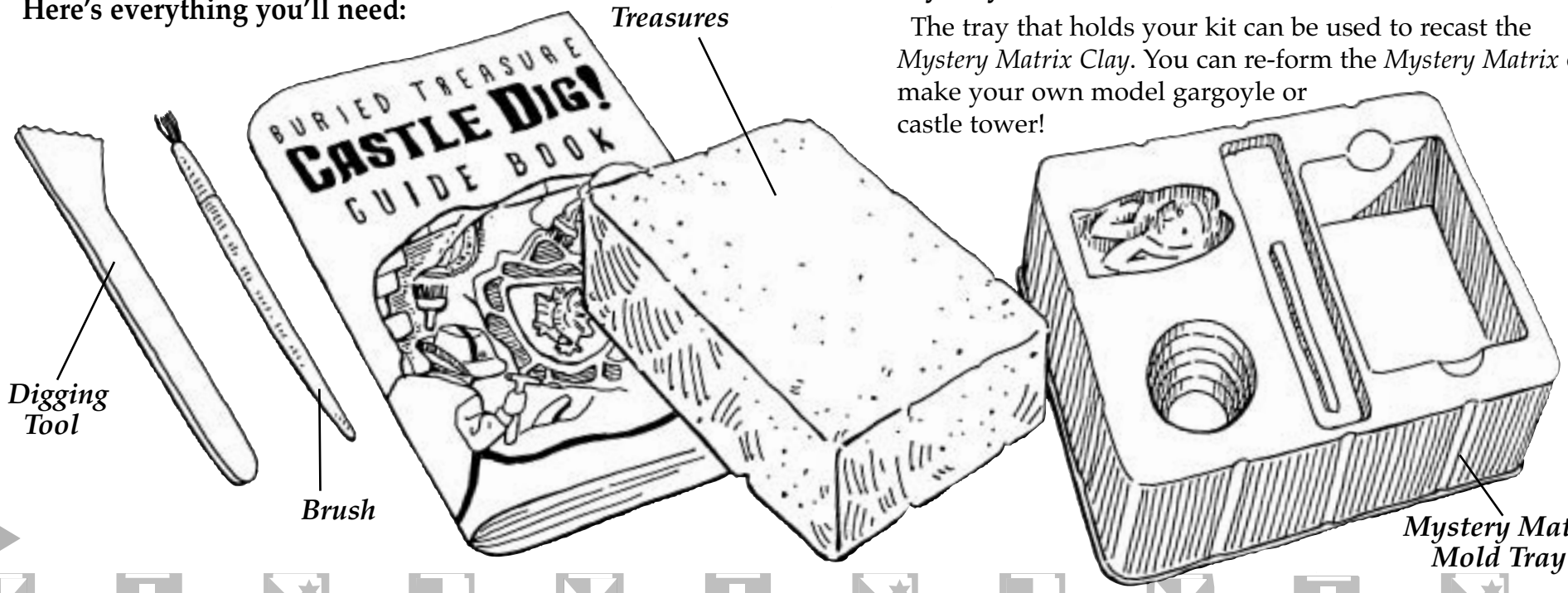
Search for Buried Treasure!

Are you ready to dig into history and discover the wonders of an ancient world? Grab your digging tool and brush. It's time to search for buried treasures—just as archaeologists do!

Archaeologists are scientists who study the way people lived long ago. They do this by digging up and studying the tools, the pottery, and even the buildings they have left behind. For many years archaeologists have been studying the treasures of medieval castles.

Now you can, too.

Here's everything you'll need:



Archaeologist's Guide Book

This guide book contains instructions, background history, data cards, and activities.

Mystery Matrix

Your four buried treasures are hidden inside the *Mystery Matrix*. The *Mystery Matrix Clay* can be recast for hours of additional fun.

Excavation Tools

Proper tools are important to an archaeologist. We've included a special digging tool and a brush for use in uncovering your buried treasures.

Mystery Matrix Molds

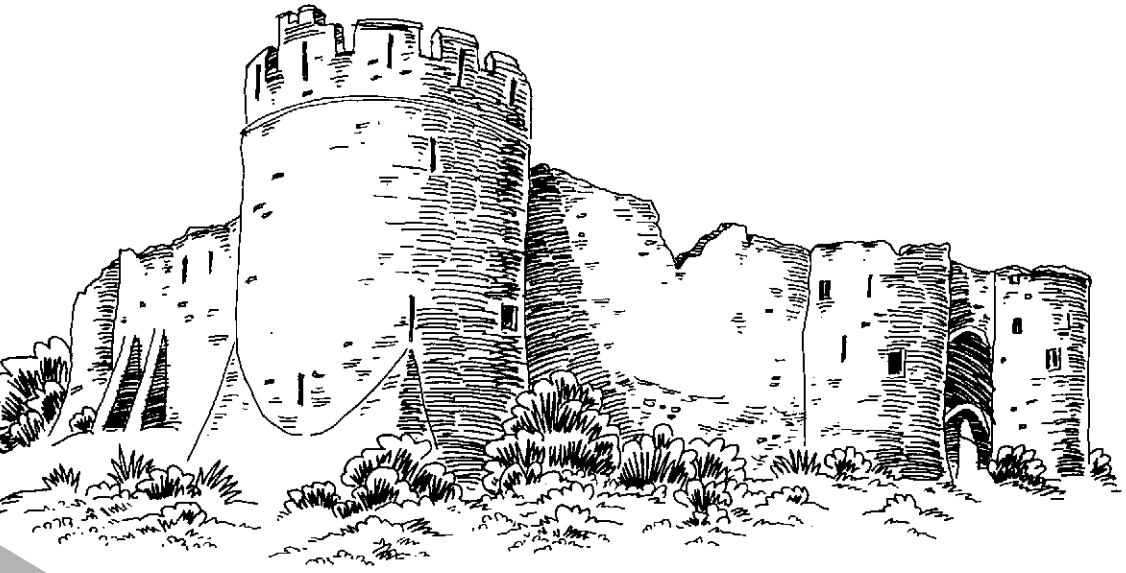
The tray that holds your kit can be used to recast the *Mystery Matrix Clay*. You can re-form the *Mystery Matrix* or make your own model gargoyle or castle tower!

Medieval castles

Some archaeologists explore prehistoric times, the earliest days of humankind. Others try to learn more about historical times, for which there are written records.

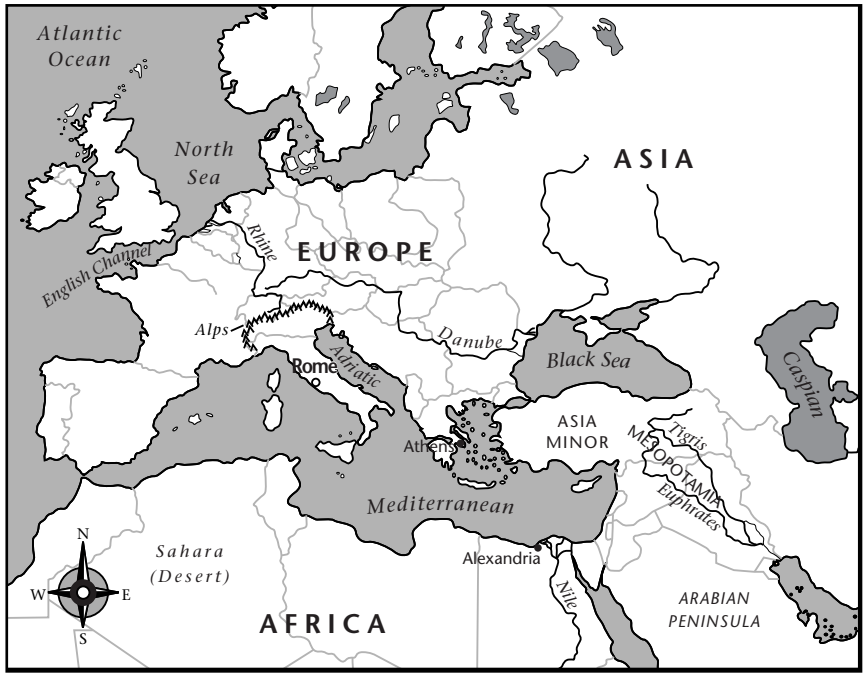
History is not just a collection of names and dates. It is the story of the past. History tells of ancient lands, the people who lived there, and the things they did in their everyday lives.

Castle Dig gives you the chance to share the excitement of archaeological exploration. You will discover treasures like those found in the ruins of medieval castles. To better understand these treasures, you'll need to know something about castles and the people who lived in them.



What *Medieval* Means

Historians divide history into time periods. In Western Europe, the powerful empire of Rome fell in the year 476 AD. But countries as we now know them did not begin to take shape until about 1400 AD. Archaeologists and historians call the period between these two dates *medieval*, meaning "the middle age."



A Time of Conflict

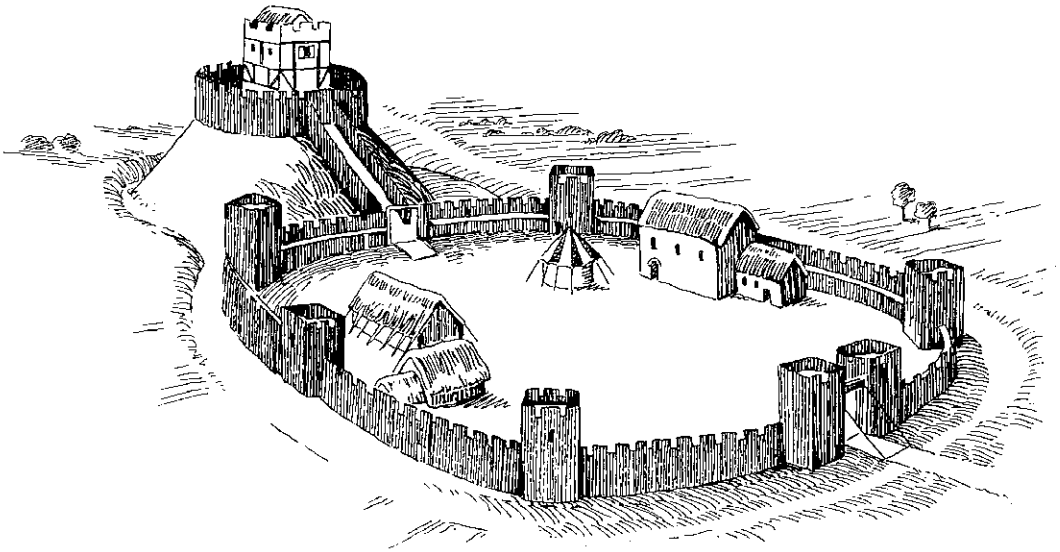
For centuries mighty Rome ruled most of Europe. And Roman law, enforced by the Roman army, kept peace in the lands bordering the Mediterranean Sea. But in the year 476 Rome fell to invading barbarians. Peoples from north of the Alps conquered lands once controlled by Rome. And their

tribal leaders fought among themselves to see who would rule the newly won territories.

To protect themselves and their followers from attack, these leaders built strongholds fortified with sturdy walls and other defensive structures. These fortifications were the beginnings of castles.

Early Fortifications

Before the 11th century, castles were very much like the camps of Roman armies, which were encircled by ditches and walls of dirt. Over the years, some medieval fortifications became permanent when wooden walls were built in addition to earth mounds.



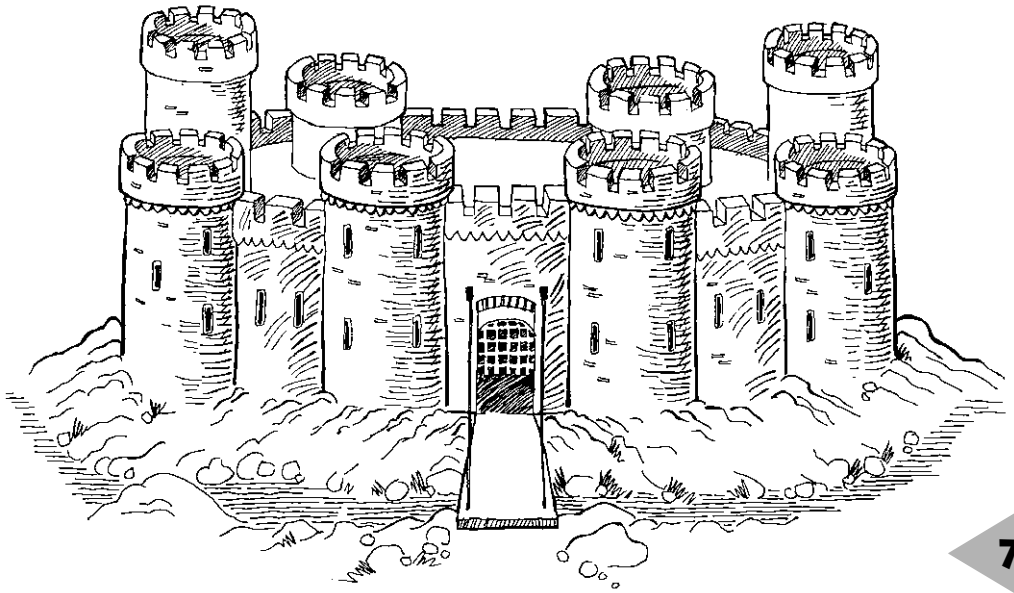
Although castles of this kind offered some defense, wooden walls were easily destroyed by fire. Fortresses built of stone were better, stronger, and longer lasting.

Building a Castle

Many years of work and great wealth went into the building of a castle. But a well-built castle could last a very long time. In fact, castles constructed 700 years ago still stand today!

Castles were often surrounded by a *moat*—a wide ditch filled with water. The moat was crossed by a *drawbridge,* which led to the castle's main gateway. When an enemy approached, the drawbridge could be raised and a *portcullis*, or heavy iron grate, could be lowered to block the gateway. Thick stone walls surrounded the central courtyard of a castle. And towers were built to strengthen corners and key points along the castle walls.

The strongest part of a castle was the main keep. This central building was round or square and had stone walls up to 33 feet (10 meters) thick. Usually the keep was home to the lord of the castle, his family, and chief officials.



Life in a Medieval Castle

What was it like to live in a castle six or eight hundred years ago? A lot depended on who you were. Every member of society had a special role in life, with fixed rights and duties.

The Royal Family

Royal families and their courts were at the top of medieval society. And the king's castle was the center of power. There the king met with his advisors and local officials. It was the king's responsibility to see that his knights and soldiers were prepared to defend the land and its people from enemies.

The queen or the lady of the castle had an important part to play as well. She often gave the day-to-day orders to the servants who cooked the meals and kept the castle clean. Some queens were highly educated in languages and history. And a few ruled kingdoms of their own. A king lucky enough to have such a queen turned to her for advice on important decisions. If the king was away at war, the queen and other members of the royal court kept order in the kingdom.

The queen also made the castle's royal chambers comfortable. Plain stone walls were plastered, painted, and hung with costly tapestries (pictures woven in cloth). Large fireplaces brought warmth and cheer to the big, drafty rooms. And a roaring fire warmed the great hall, the castle's main room, where the royal family took meals with the members of their household.

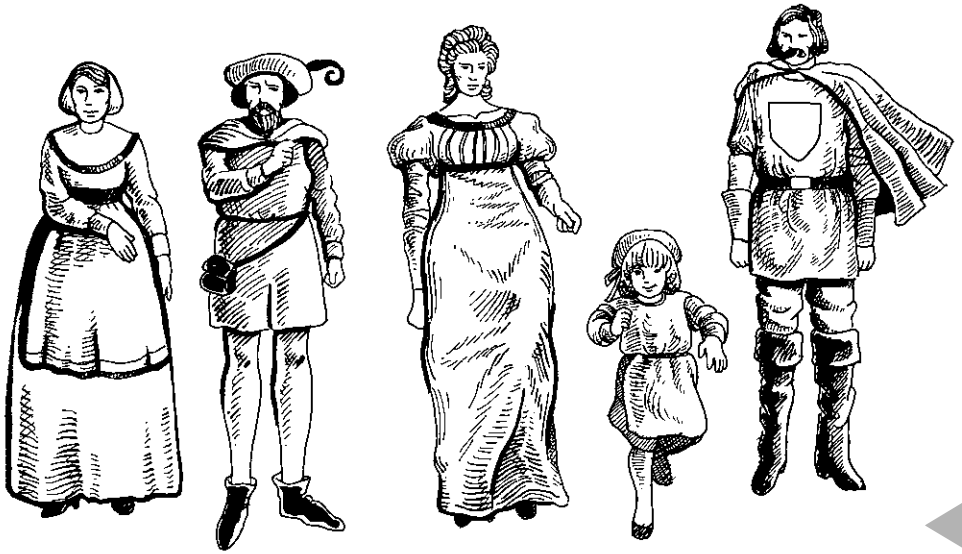
The Nobles

Some castles were ruled by a lord who received his authority from the king. In return for this power, the lord of the castle gave the king a share of his crops and flocks. He also sent knights and soldiers to join the royal army in time of war.

In time of peace, noblemen and their knights took part in tournaments. In these contests, knights on horseback practiced their skills with lance and sword.

Tradesfolk

Skilled craftworkers had homes within the castle's outer walls. Their homes were small—sometimes only a single room. They served as workshop, living quarters, and sometimes as a place for selling or trading goods. Most craftworkers made a modest living, but a few merchants grew rich. And once in a great while, a merchant was raised to noble rank in return for special service to the king.



Commoners

The rest of the people who lived in and around a medieval castle were commoners. Most of them farmed the lord's fields as well as strips of land set aside for their own use. Others worked as servants, cleaning or attending to the upkeep of the castle and the lord's possessions.

Life was very hard for the commonfolk. More peasant children died before they were fifteen than lived past that age. But medieval life also had a brighter side, even for commoners. The feast days of the church always called for great celebration. Men, women, and children gathered in the castle square to be entertained by jugglers, singers, and actors. And special food and drink was enjoyed by all.

In times of trouble, the common people looked to the lord for shelter and protection within the walls of the castle.

The End of an Era

By the 1500s, warfare was changing. Huge armies went forth to do battle, and castles could not be built large enough to house all the soldiers. Finally, the development of cannon put an end to the castle-building era. Stone walls could not be made thick enough to resist round after round of cannon balls.

Today, many of the castles that remain are in ruins. Others have been turned into museums or guest lodgings. Only a few are still home to the descendants of the noble lords and ladies who once lived there.

Your *Mystery Matrix Clay* holds artifacts like those found by archaeologists. If you're ready, it's time to begin your trip into the past for a Buried Treasure Castle Dig.

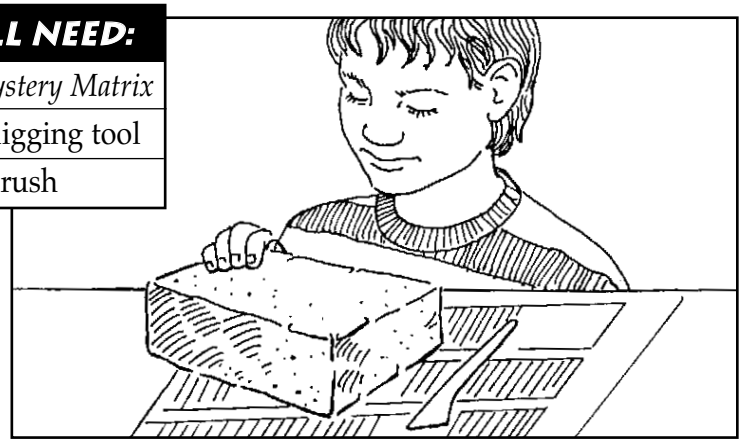
Directions: Excavate Your Buried Treasures

Before You Begin

Set up a place to work. (The area you choose must remain undisturbed while you complete your excavation.) Spread out plenty of newspaper. Work on a floor or table counter that can easily be cleaned off when you're finished.

YOU'LL NEED:

- the *Mystery Matrix*
- your digging tool
- your brush



Follow These Steps

Before beginning, read all the directions carefully.

1. Carefully examine the surface of the clay matrix before you start. Look for bumps or dents that might show where one of your artifacts is buried.
2. Gently start to scrape away the edge of the clay with your excavation tool. **BE CAREFUL TO KEEP THE SHARP END OF THE TOOL POINTED AWAY FROM YOUR EYES, BODY AND OTHER HAND. WEAR*

*Safety warning.

WORK GLOVES (GARDENING GLOVES WORK FINE) TO PROTECT YOUR HANDS AS YOU WORK.

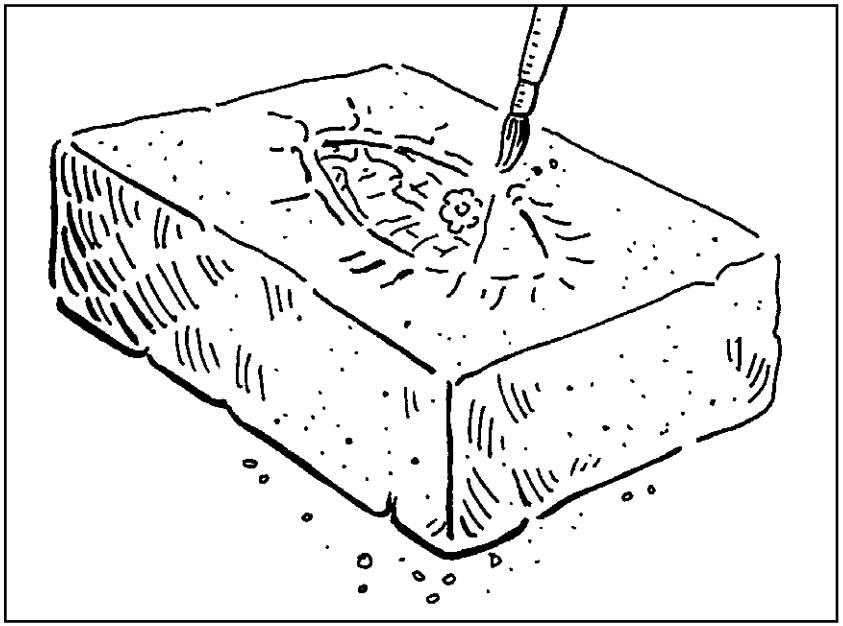
Work slowly and carefully so you don't scratch or damage any artifacts with your tool. Remember, the artifacts could be buried anywhere inside the matrix.

IMPORTANT:

As you work, save all the clay that made up the matrix. Don't throw it away or let it fall onto the floor. When you've found all of your artifacts, you'll be able to recast this clay into a new matrix or other figures. (See pages 21-23 for directions.)

3. When you see an artifact showing through the clay, be careful not to scratch it with your tool. Carefully dig out the clay from around the artifact. When you've uncovered its top and sides, start to dig out the clay underneath it. ***Never try to pull a specimen from the clay before you've dug completely around it.*** The artifacts might break if not removed gently.

4. After you've freed your first artifact from the clay, place it on the newspaper. Use the excavation tool to remove any big clumps of clay from the artifact. Then use the brush to dust off the remaining clay. Use a damp cloth or carefully rinse the artifact with water to clean off the residue.



5. Follow these steps until you have found all four of the artifacts. As you find each one, fill out a Data Card (pages 14-16).

Record your data

When an archaeologist digs up an artifact, he or she writes down where it was found, what it looks like, and any other information that might be important.

Fill out one Data Card (pages 14-16) for each artifact you find. You'll need to check out the Fact Sheets on pages 17-20 to answer some of the questions on the Data Cards.

Artifact 1

Draw a picture of your find. Color it.
Describe the object.

What do you find most interesting about this artifact?

What is the artifact?
What did this artifact mean to a person in medieval Europe?

Artifact 2

Draw a picture of your find. Color it.
Describe the object.

What do you find most interesting about this artifact?

What is the artifact?
What did this artifact mean to a person in medieval Europe?

Artifact 3

Draw a picture of your find. Color it.
Describe the object.

What do you find most interesting about this artifact?

What is the artifact?
What did this artifact mean to a person in medieval Europe?

ARTIFACT 4

Draw a picture of your find. Color it.
Describe the object.

_____

_____

_____

What do you find most interesting about this artifact? _____

_____

What is the artifact? _____

What did this artifact mean to a person in medieval Europe? _____

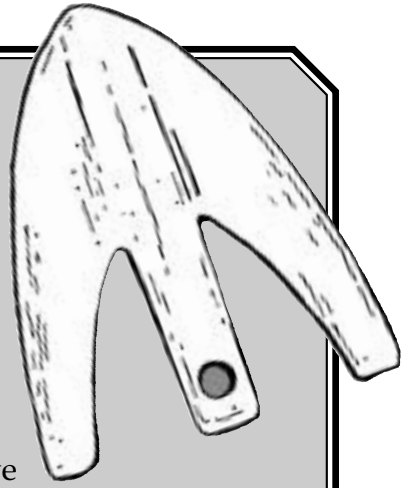
_____

_____

BURIED TREASURE FACT SHEETS

Here's some information about the treasures you've discovered.

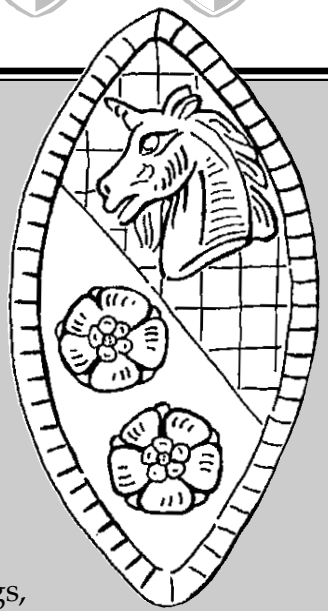
ARROWHEAD



The bow has been used as a weapon since prehistoric times. Early civilizations usually used a short bow and flint or stone arrowheads. By the Middle Ages, metal arrowheads had replaced ones made of stone throughout Western Europe. The longbow, five to six feet long (1.5–1.8 m), was invented during medieval times. With it a bowman could shoot an arrow farther and with greater power than ever before.

Arrowheads of many different types have been found in and around castles. Iron and steel arrowheads of various shapes were used. Some arrowheads fit like a cap over the tip of the arrow. Others, like the one in your *Mystery Matrix*, were attached to the arrow with a *tang*. This metal tongue at the bottom of the arrowhead fit into a slot in the arrow. Even before the invention of gunpowder weapons, the longbow had lessened the effectiveness of the knight on horseback. An arrow shot from a longbow could easily pierce a knight's body armor. And equipping villagers with bows and arrows was much less costly than providing a knight with horse and armor.

ARMORIAL SEAL



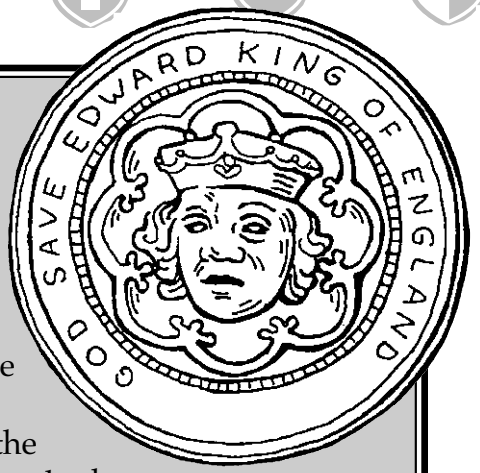
What makes an important document, like a peace treaty, official? Sometimes it is a wax seal. Hot wax is dropped on the page and a mark pressed into the soft wax with a special tool. The impression and the tool that made it are called seals.

During the Middle Ages, kings, church and town officials, and even merchants used such seals. A medieval seal was usually made from bronze or silver and was carved with initials, symbols, or coats of arms. An armorial seal, like the one you discovered, shows a coat of arms.

One of the symbols on your seal is the *unicorn*, a mythical animal that looks like a horse with a horn on its forehead. During the Middle Ages the unicorn stood for strength and purity. This was a popular emblem because knights wanted to be both strong in combat and pure in thought and deed.

The rose was also common on coats of arms. In the 1400s, two families warring over the English crown took the rose for their emblem. The house of Lancaster was identified by a red rose, and the house of York by a white one. The struggles between the families were known as the Wars of the Roses.

COIN



From earliest times, people have traded goods with one another. Direct exchanges, like trading a pig for a bushel of wheat, are called *barter*.

As trade increased, so did the need for trade goods that were both valuable and easy to carry. Furs, salt, and gems were sometimes used. Later, rare metals, such as silver or gold, were stamped with a king's seal to guarantee their value. This was the beginning of money as we know it.

Your coin combines features of various medieval English coins. Between 1274 and 1553 six Edwards sat on the English throne. A likeness of each appeared on coins of the time. Even today, a profile of the queen appears on English money.

The Christian religion had great influence on the people of the Middle Ages. And Christian sayings often appeared on coinage. ("In God We Trust" is on modern U.S. coins.) Your replica coin bears the motto "Prosper the works of our hands" from the Bible's Book of Psalms.

The emblems on the back of the coin are from Great Britain's coat of arms. Like the unicorn, the lion is a symbol of courage and strength. It is also the animal that appears most often on coats of arms. (See pages 26-29 to learn more about coats of arms.)

HERALDIC PENDANT

Coats of arms were used to decorate or mark items as personal property. Noblemen used pendants like the one in the *Mystery Matrix* on their horse's bridle. (See the illustration on page 26.) Take a look at the hood ornament on a car. Are the two similar in any way?

Horses were very important in medieval society. Knights and nobles used them for transportation and rode them in battle. Landowners who could afford a horse had a powerful helper for hauling heavy loads and plowing the fields.

This pendant displays a shield like that on a nobleman's coat of arms. The creature on the shield is a *wyvern*. A mythical beast like the unicorn, the wyvern is a two-legged winged dragon.

The back of the artifact is inscribed *Prometheus*. A Titan from Greek mythology, Prometheus gave humankind the gift of fire. Perhaps Prometheus was the name of this nobleman's horse!

The loop at the top of a pendant allowed it to be attached to the horse's bridle. If you like, you can thread a ribbon through the loop and wear this pendant as a medallion.

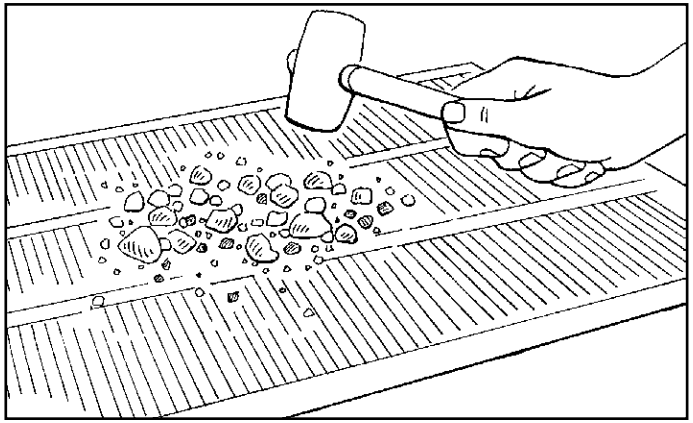
DIRECTIONS: RECASTING YOUR MYSTERY MATRIX CLAY

You can use the *Mystery Matrix Clay* over and over again!

- Excavate your medieval treasures once more by casting a new *Mystery Matrix*.
- Create a whole new mystery! What would an archaeologist of the future find in a *Mystery Matrix* excavated at your house or school? Cast a new matrix, but place in it artifacts of your own (coins, keys, small plastic toys— anything that won't be harmed by water).
- Make miniature replicas of a castle tower or a gargoyle!
- Use the clay to mold shapes of your own!

Here's how to recast the *Mystery Matrix Clay*!

1. Spread newspaper or another protective covering on your work area.
2. Pour the broken pieces of clay and the clay powder you have saved onto this area.



3. Using a small hammer or mallet, carefully break any large lumps of clay into powder. (Note: Be sure to wear eye protection!)

4. Spoon the powdered clay into the mold you're going to cast. **Count how many tablespoons it takes to fill the mold.**

5. Next, pour the clay powder from the mold into a mixing bowl. Add two more tablespoons of clay powder to the bowl.

   • To recast a new matrix add all remaining powder to the bowl.

6. Add warm or hot water to the clay powder. For every 2 tablespoons of powder you've put in the bowl, add 1 teaspoon of water.

7. Mix water and clay until they are blended into a thick grainy paste. Like "spoon cookie" dough, it should stick to a spoon even when the spoon is turned over.

8. Spoon this paste into the mold and pack it in solidly.

   • If you are making a new matrix, cover the bottom of the mold first. As you fill the mold, put each artifact into the new matrix. Surround each artifact with clay paste.

9. Continue spooning the clay paste into the mold until it is full. Smooth the top of your filled mold, tapping the paste gently with the back of the spoon to make sure the mold is well packed.

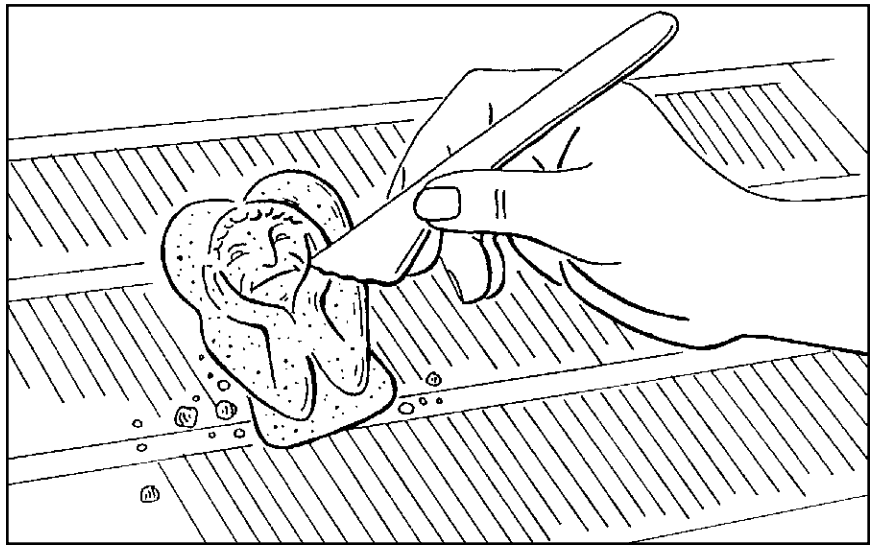
10. Set the mold outdoors to dry in the sunshine for 3½ to 8 hours. The time needed depends on the weather. If it is hot and dry, your mold will dry more quickly. If it is humid, drying time will be longer.

    You can also set the mold under an incandescent light bulb. Place it no closer than 6 inches (15 cm) from the bulb. Drying time will vary indoors, but could take up to 24 or even 36 hours.

    When the clay is dry, it fades from the dark color of the paste to the lighter tone of the original matrix and powder. Gently press the edge of your thumb into the clay. If it's still soft, like ripe fruit, it needs more drying time.

11. When the paste is almost dry, turn the mold over and gently wiggle its plastic walls to free the newly cast clay.

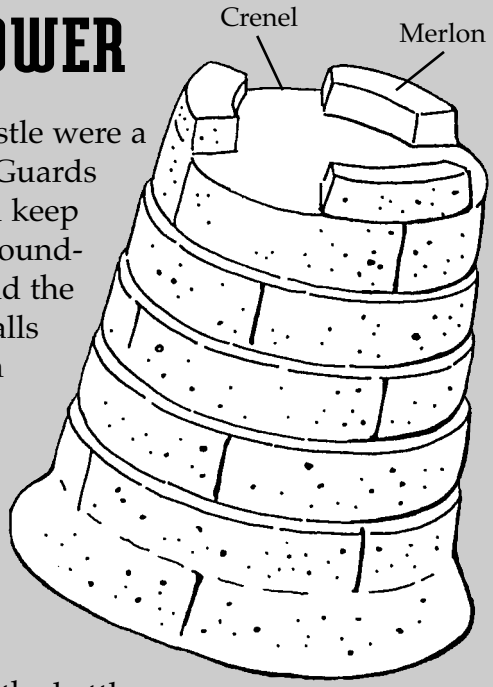
12. Remember—save your *Mystery Matrix Clay* whenever you break up or carve a cast piece. You can reuse it many times.



The Mystery Matrix Molds

Besides casting a new matrix, you can use your *Mystery Matrix Clay* to create models of two of the most recognizable features of a medieval castle: a tower and a gargoyle.

CASTLE TOWER



The towers of a castle were a key to its strength. Guards on the towers could keep watch over the surrounding countryside. And the towers' rounded walls provided protection against stones fired from catapults and other weapons.

Tower *battlements* protected the castle's defenders. Soldiers took cover behind the *merlons*, the battlements' raised stonework. And they shot arrows or poured boiling oil or water through the *crenels*, the gaps between the merlons.

Make several castle towers with your *Mystery Matrix Clay*. You'll have the beginnings of a castle of your own!

A GARGOYLE

In ancient Greece, temples and other public buildings were built to last. Some still stand today, thousands of years later. Waterspouts helped to protect these buildings from rain. Sometimes shaped like lions' heads, these spouts prevented water that ran off the roof from damaging the walls.

Waterspouts have been used throughout history. The best known examples are the *gargoyles* seen on medieval buildings. These stone carvings have slotted drains that carry water to the figure's mouth and away from the building. They were placed on towers, cathedrals, and other large structures. Gargoyles came in the shape of dragons, birds, mythical beasts, goblins, and monsters.

Eventually, the word *gargoyle* came to mean all such fantastical building decorations. The figure you can cast with *Mystery Matrix Clay* is a decorative gargoyle, sometimes called a *grotesque*. The correct name for a gargoyle that is not a waterspout is *chimera*.

Legends say that these figures were guardians, who frightened evil spirits away. The uglier the gargoyle, the more effective it was!

You can use your excavation tool to carve additional details into your gargoyle. Make it as fierce or as funny as you like—the uglier, the better!

Heraldry

What Is a Coat of Arms?

Battles during the Middle Ages were often very confusing. Arrows flew through the air, horses charged, and men swung swords or pikes (a kind of long spear). Sometimes it was difficult to tell which side a knight or soldier was on. If a knight was galloping towards you, you had only moments to decide if he was friend or foe.

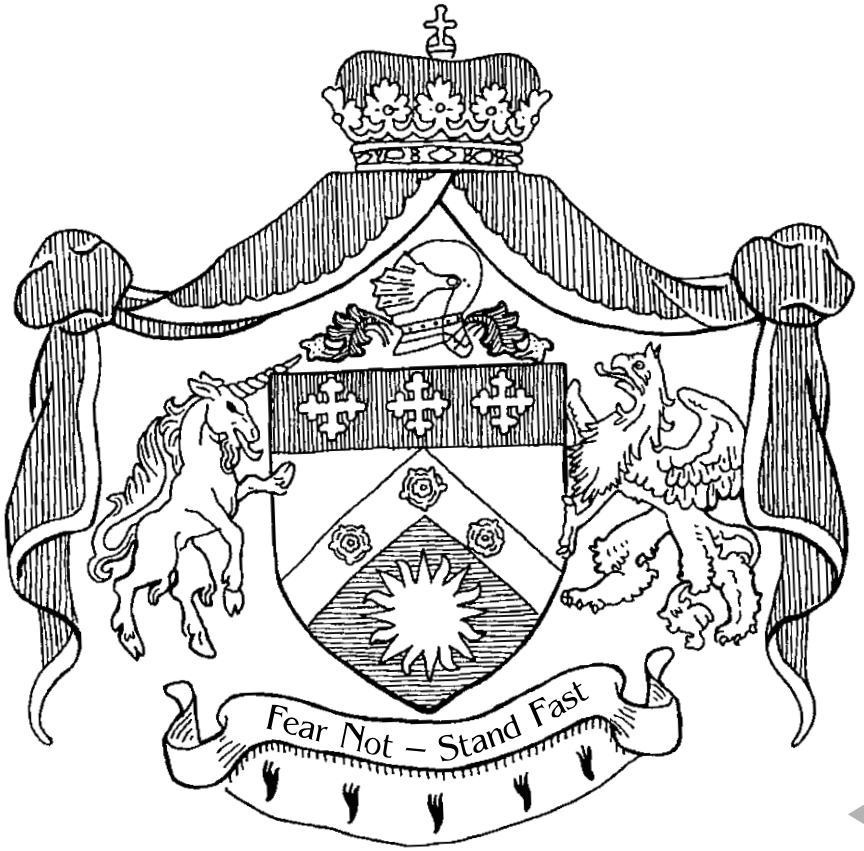
Modern sports teams solve a similar problem by wearing team uniforms with distinctive logos and colors. Medieval knights identified themselves by the colorful symbols on their coat of arms.

When a man became a knight, he was granted a coat of arms. This became his unique identifying mark. The knight put it on his tunic (the garment worn over his armor), his shield, and on the banners decorating his home. A knight's armorial seal and the heraldic pendants on his horse's bridle showed all or part of his coat of arms.

Signs and Symbols

Careful records were kept to make sure that each coat of arms was different.

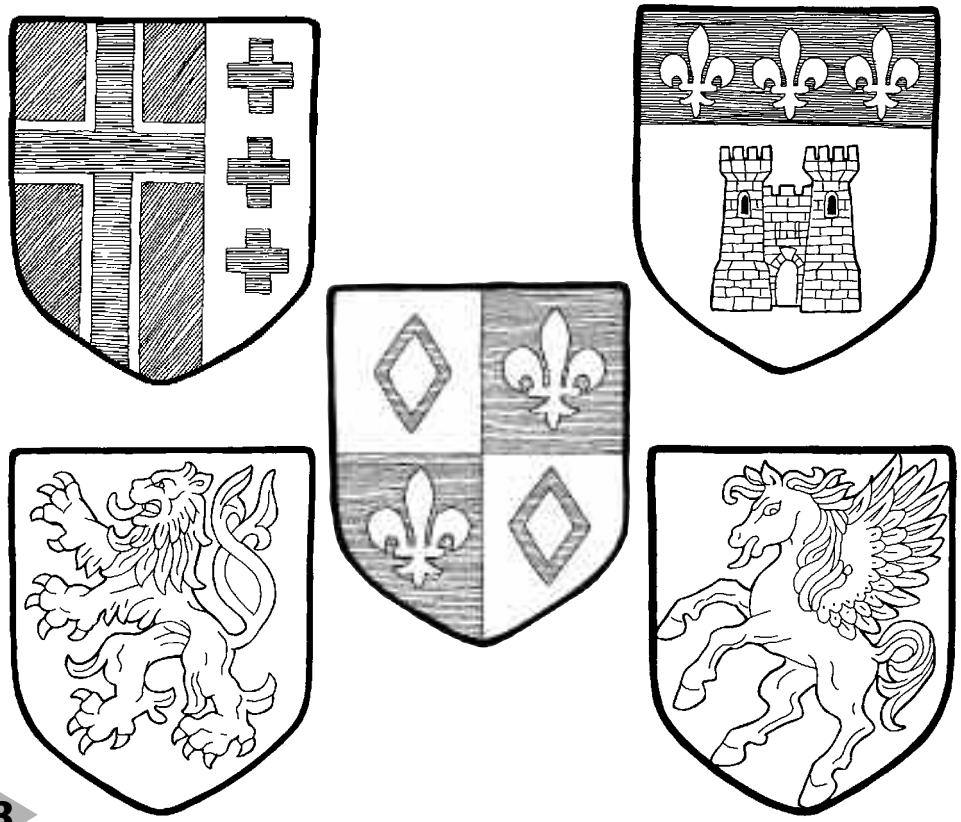
Heraldry is the name for the highly organized rules that determine what goes into a coat of arms. The designs on a medieval coat of arms and their arrangement told a lot about a knight and his family history. Complete coats of arms included sayings or mottoes and many other kinds of symbols. The higher a person's rank, the more details there were around the central shield.

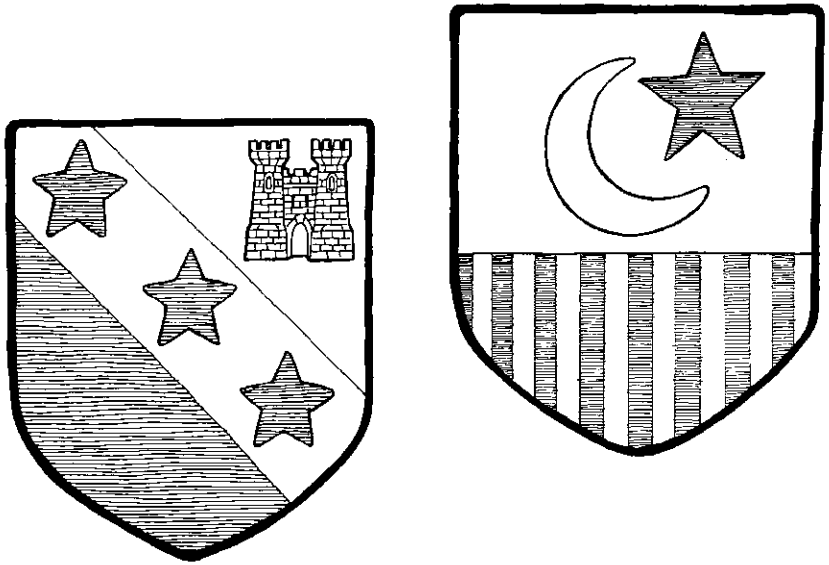


At the center of a coat of arms is the shield. The shield uses combinations of seven basic colors: white, yellow, red, blue, black, green, and purple.

Many kinds of figures are used in heraldry. Human and animal forms, geometric shapes, and religious symbols all are popular. On a coat of arms these figures are called *charges*.

The shield can also be divided into parts. This allows many more distinct coats of arms to be created. Here are some sample coats of arms.





Design Your Own Coat of Arms

You can design your own coat of arms! Here's how . . .

1) Copy or trace the blank shield from the back cover of your Guide Book.

2) Decide if you want a single area on your shield or how you'd like to divide it.

3) Pick background colors for each area of the shield.

4) Add charges to each area (or leave some areas a solid color). Choose animals, figures, or shapes that you like or that relate to your name. A person with the name of Smith might use a hammer and anvil on his coat of arms to represent a blacksmith. Color each charge to contrast with the background colors.

5) If you like, add a motto. (English is fine for modern coats of arms!)