THE LOVELY LESSER ARTS

LEATHER MAKING, SCREENS, IVORY, MAP MAKING SILHOUETTES, AND WHAT TO DO ABOUT NUDES

By ESTELLE H. RIES

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I. LEATHER MAKING—AN OLD SPANISH CUSTOM

The leather "industry," if such we may call it, is an ancient one. Long before the development of the loom, shaggy hides served as coats and blankets, while garments and accessories of leather preceded woven ones. Man's early matured desire for splendor and ornament in dress led him soon to the discovery that these skins, shorn of hair, namely leather, lent themselves to decoration that the shaggy

hides could not afford.

Came the problem of preserving the skins against decay. Probably the original process of curing skins was that of simply cleaning and drying. Then the use of smoke, sour milk, various oils and the brains of animals were found to improve the texture of the leather. Later it was discovered that certain astringent barks and vegetables effected permanent changes in the texture of skins and stopped decay. This knowledge was possessed by the ancient Egyptians, for engravings on their tombs depict the process of tanning. That they valued leather highly is known from the fact that it was classed with gold, silver.

ivory and rare woods, and was given to gods and kings as tribute.

The famous legend of the founding of Carthage tells how Queen Dido, when promised only as much land as could be covered by a bull's hide, cut the bull's hide into thin strips and laying them end to end, encircled enough land upon which to build the mighty citadel of

The sacredness of the cow to the people of India has resulted in denying to them the by-products of this animal. No caste Hindu will touch leather. Leather working is the most menial job in India, on the same level as scavenging. Only untouchables work in tanneries.

But in other countries leather has had many uses. It was one of the first materials to be used as money, and indeed the word, pecuniary, is derived from the Latin, pecus, which means the hide of a cow. The Romans also gave us the word "tan" as a leather process, which comes from Tanare, meaning oak bard. The use of leather in shoes and countless other ways is too obvious for discussion.

Even stockings at one time were made of this fabric, as witness Cooper's Leather Stocking Tales about the American Indians. But here we shall refer rather to the artistic aspects of leather, a story not

without its own romance.

The early warlike races who at first rode their horses barebacked in their conquering expeditions felt that ornamental trappings would be more in keeping with their character as victors. So came into being the marvelous mosaics of pique leather of the eastern peoples which impressed the Crusaders in the middle ages and set Europe to imitating a well-developed craft. The African Moors introduced this art in an advanced stage into Spain doubtless before the 10th century. The Spanish name for decorated leather, guadamacileria, provides a clue by which its origin has been traced back to Guadames, a little spot on the rim of the Sahara which to this day carries on a small leather industry.

But while the initial impetus was imported, it remained for Spain to develop the craft into an art which other countries never surpassed. Spain is as much the home of leather as China is of silk. Cordova was the first and most important center for the art of the guadimacilerothe leatherworker who was artist and artisan as well. The ordinances of Cordova, dated 1567, for the license of leatherworkers, showed the strictest requirements, and severe punishments for any sort of deception as to honesty of product. The word, cordwainer, derived from Cordova, is a witness of the practical monopoly of Spain in the making of decorative leather. Cordova of a thousand years ago was a center of culture and craftsmanship in Spain, a city of a million souls whose splendor rivaled that of Bagdad the magnificent.

It was written in the 16th century that so many guadamecies were made in Cordova that in this craft no other capital could compare with her, and in such quantities that they supplied all Europe and the Indies. This enriched Cordova and also beautified her, for the gilded, wrought and painted leathers were fixed upon large boards and placed in the sun to dry, and by reason of their splendor and variety, made

her principal streets lovely to see.

When the use of gold leaf was introduced, the magnificence and importance of leather bounded forward to unprecedented development. Silver and gold embroideries were done on leather. Crests and monograms, coats of arms, appeared. Church hangings and other fabrics grew splendid. Knights would be represented in brilliant armor with plumed helmets painted in oils, and at the height of its career, one hardly knew whether he was looking at decorated leather or some fine painting. Old leatherwork, like all the decorative legacy we have from Spain, seems to have over all of it, intangible but potent, some essence of the romance which lingers in the memory of the fascinating land of

ts origin.

There is scarcely a skin which cannot be decorated in some way and various ones have been adapted to different uses. Some of course are softer and more pliable and lend themselves to certain forms of treatment better than others. Cow and calf skins are more suitable for really fine leather work and molding as they are both flexible and smooth. Ox hide is thick and lends itself to incising and carving. Morocco, a goatskin with grained surface, is used most frequently for bookbinding and for the process called mosaic which is the inlay of one colored skin upon another. Pigskin is firm and was much used for the stamped bindings of the 15th, 16th and 17th centuries. Chamois leather is suitable only for flat decoration, stencilling or painting. Vellum, a thick stiff white skin, may be decorated with pen or brush work. Inspiration for painting on vellum may well be drawn from the marvelous miniature and manuscript work done on this material in the middle ages. Exquisite examples of this may be seen in the convent of San Marco in Florence where are exhibited the works of Fra Angelico and the monks of his time.

Unlike tapestries, fabrics and brocades, leather does not attract insects or dust and after many years will often retain its original brilliancy. It is strong and durable; may be easily cleaned with a sponge and water. With our modern heated houses it is well to rub it with a

cloth dipped in oil.

After the skins were tanned, the old Spanish craftsman stamped the pattern on them from the wooden mould, then working out the design by a process similar to engraving. The interesting effect was achieved by the contrast of colors, heightened by gold and silver, so applied as to throw into relief either the background or the pattern. The decoration was generally done in oil colors, red, green and blue being the most popular. These colors were ordinarily found in the space between the ornament which was in gold or silver gilt. Considerable variety obtained in the patterns which were stamped from wooden moulds and then engraved with chisels and punches. There were birds, flowers, trees, butterflies, scrollwork, cupids and other figures in geometrical forms. When gold was to be applied, the surface of the leather was covered with oil so that gold leaf would stick to it. On this the workman laid the beaten gold and then applied a heated iron or copper mould with which the pattern was stamped, and the surplus gold wiped away. The temperature of the moulds had to be regulated with great care for if they were too hot the leather was burned, and if not hot enough the gold would not permanently adhere.

An important advance was the invention of punches which were cut in relief and applied with a hammer. These threw ornament into relief and led to the fashion of embossing with modeling tools and stamps, and the use of repeat ornaments instead of landscapes and figures. Many other processes developed, and now engraving, cutwork, applique, embroidery, tooling, stamping, embossing, studding with nails, painting, and lacquering in gold and polychrome on silver leaf are all known. The leather worker has a multitude of small tools, each capable of making a tiny mark that eventually evolves the design sought for. Almost no intricacy is too great, and the delicacy of tiny leaves and tendrils is often quite remarkable. In studying the leather work produced through the centuries we might classify the various methods of decorating as follows: cut or engraved, carved, punched or hammered, modelled with punched background, stamped cut work and leather mosaic.

Punched leather work was done with steel or brass tools having at the point a design cut in relief or intaglio. It was impressed on leather by hand alone or by means of a hammer. Hammered work was decorated entirely by means of punches often used in conjunction with carving. Modelling in leather may be done in two ways; with cut or traced outline. When modelled after being cut it is given the appearance of relief. The leather takes the desired shape easily, the charm lying in the softness of its form. Embossing is done by wetting both sides of a thick hide and obtaining a high relief by means of a tool consisting of a small steel ball with a handle. Stamped leather is done by means of steel die and balance press or also by means of two plaster casts.

The coloring possibilities of leather are unlimited. Vegetable colors may be used or ordinary water colors based with glycerin or albumen. Oil or spirit colors give transparency. Golds and bronzes may be used

with good effect.

As the art developed and the excellence of leather became widely known there was a ready sale for it all over Europe, and its manufacture spread to Italy and later to France under the patronage of Francis I, and elsewhere. Long before Italy, Flanders, France and England began to copy the Spanish, however, they had their own leather industries which grew up logically in these just as they had originally in the east. In the Middle Ages, leather trunks, chests, coffers, sheathes, bottles, saddles, the chair seats of nobility and many other objects were made of leather, stamped and tooled and painted in gold and polychrome and of a decorative importance that we today hardly realize.

In Florence, the craftsmen were connected with the guild of tanners or saddlers, or an association of leather workers employed by the guild of doctors and apothecaries. The special art of the Florentines and the Venetians too, is shown by the bookbindings which made these cities famous. You can even now go along the Lung'Arno, or St. Mark's Square, and see the descendants of those old craftsmen with equally lovely leatherwork to tempt you.

The Italian ornamentation differs from that of the Spanish with its embossed effect, and is usually flat with incised lines, the patterns filled in with goldleaf. Its rich warmth of color is familiar to us in countless desk sets, bookcovers, waste baskets, picture frames and other minor

decorative accessories.

In Germany the invention of printing gave a great impetus to the art of the leather worker in connection with book covers. Previously the beautifully illuminated manuscripts produced by the monks had been bound in costly ivories, enamels, with gold and jewels. These were now too costly and valuable for books that could be duplicated rapidly and cheaply and no longer represented any considerable intrinsic worth. The bindings at first took the form of religious or symbolic and heraldic subjects, later indicated the subject of the book, and were often of a high degree of artistic interest.

Meanwhile the activity in Spain was keeping up, and among all the wall and furniture coverings which in various decorative eras have been used for home adornment, the Spanish leather, stamped and gilded in its rich, splendid form, is perhaps unrivalled. It is no less effective in its phases, than tapestry, and far more durable. The misfortune is that private collections and museums nowadays are almost alone in possessing, and from its extensive uses in almost endless forms during the

middle ages, little of it is now in existence.

A number of reasons combined to cause the decline of the art. The Spanish government to some extent was an unconscious factor in this contretemps. The Catholic kings, absurdly enough, forbade its exportation to the New World, so as not to deprive the mother country of goods of such value. Venice and other cities found they could supply the demand, and soon Cordova was surpassed. With the general impoverishment of the country in the 18th century, many of the best specimens of Spanish leather which adorned the old mansions were sold by their owners and scattered beyond the borders of Spain. At the same time improvements in the art of weaving and in machine printing of textiles, and the success of the great tapestry works at Mortlake, at the Gobelins and at Beauvais made it impossible for the laboriously hand wrought leatherwork to compete. While everything possible was done to lessen the cost of production, the only result was that leather acquired a reputation for inferiority.

The production of leather by the 19th century had practically stopped altogether, and so completely was the art forgotten and disregarded in favor of new things that many priceless old leather panels in ancient Dutch houses were pasted over and hopelessly ruined by layer after layer of wallpaper.

But even if leather was not the style, it has always been used for comfort. Many of us remember that some years ago leather upholstery was much the thing. It would cover the chairs in library, dining room and hall. In a living room, the man of the house would seek to have it for his very own. He would like it particularly because it did not catch his woolen clothing and put unwanted wrinkles into it. But at that time it was such a bulky clumsy affair that the housewife found it out of keeping with her other belongings, especially in small rooms, and forcing it out of the home, it flourished in men's clubs, offices and hotels.

The woman who wishes to provide comfort for the men of the family today does not have to cope with the clumsiness of that time. The new leather chairs have much more slender and graceful lines than the heavy bulky overstuffed ideal of a quarter century ago. The straightlined simplicity of modernism has found in leather an excellent collaborator, and many a chair and sofa is provided in this material. Some of these are low arm chairs, heavily cushioned, square and compact in line, yet unusually comfortable with restful backs and seats. Red is the most popular color for leather upholstery, giving delightful warmth and accent to the room, but there are many shades of red, ranging from intense vermilion, through lavender, crimson, scarlet and raspberry to duller but equally rich tones. Cream-white leather is used in feminine quarters.

Texture is not limited to the English moroccos with fine pebbled surface, but also is available in the smoother surfaces, such as the firm texture of calfskin, the flexibility of cowhide and the tenacity of pigskin which are not so expensive. There is also a suede leather material low in cost, which has the soft velvety finish of suede and is waterproof. It may either be stood out in the garden, or cleaned by washing, and seems to stand almost anything. Suede finish is produced by running the surface of leather on a carborundum or emery wheel to separate the fibers and give the leather a nap. Fine types of light leathers are tanned by special mixtures in Sweden and Swedish leathers make exquisite yet durable articles in this form. The very word, suede, is, of course, derived from the French for Swedish, suedois.

So there is a quietly growing tendency to place a single leathercovered chair for variety in a room where formerly only textile upholstery would have been chosen. The patent leather finish, which in its shiny and unusual effect is enjoying popularity, is not only used as part of an occasional chair or sofa in a living room, but it is also in vogue for the upholstery of wicker furniture for porch or sunroom, or for a piece used to give a lighter air to bedroom or living room. There are also the traditional types of chairs, Spanish, Italian and related periods, of hand-tooled leather. Reproductions of these are obtainable in dark brown leather illuminated in gold, red and blue, with large nail heads. They add considerable distinction to a room.

While the ancients found many delightful uses for decorated leather. it remained for the American mind to devise the articles displayed in the modern shops for today's homes. Book ends are necessary details of the modern home and when they are a little different and attractive they add an artistic touch to the small occasional tables which play such an important role in present day interiors. Etchings and prints of country scenes, the English hunting prints with men in gay red coats galloping across green fields, or graceful French prints with amorous lovers languishing at the feet of the ladies, are applied to blue, red, green and brown calf to take the place of metal and wooden book ends. Attractive picture frames in blue, green, brown or red morocco, hand tooled in gold, are delightful in boudoir or living room. That often ugly thing, the scrap basket, has become a charming decoration by the inspiration of the modern leather worker. Fine old English prints, maps, and monastic parchments are mounted on them to make them suitable accessories for the study or library. Tooled leather waste baskets and others that are heavily embossed, also lend interest to this important accessory now obtainable in octagon, oval and other shapes.

There are table runners, jewel boxes, book marks and covers, and complete desk sets that are always fascinating. These consist usually of blotter corners, letter holder, inkwell, calendar, engagement pads, pencil trays, even penholders and pencils, while other pieces may be added. Desk clocks in Florentine leather, hand tooled to correspond with the desk accessories serve their special purpose, while the waste basket, picture frame for a favored photograph and other objects may all be chosen of the same color and pattern making an effective link-up. There are also wonderful scrap books to give a finer air of artistic interest to a reading table. A cigarette box is another possible adornment in leather, lined with cedar.

The dignified bookbinding has come into many strange uses today. Radio cabinets sometimes display a row of such "books" to disguise some of the unaesthetic mechanisms within. Doorways and closet doors are occasionally seen that look like the front of an open bookcase. Behind such doors may be a stray linen closet that has had to drift into the living room, or perhaps the door leads into a private chamber that only the host is supposed to know about, and the book effect serves to conceal its presence for the guileless guest. Again, bookbindings take the form of small boxes. Some of these contain drinking sets. They are also used in more innocent forms to contain photographs.

Hand tooled leather cushions come in a variety of shapes and sizes. Perhaps the most intriguing are the large Moroccan affairs that are placed on the floor to sit on, being as high as the seat of a chair, and varying in shape and width. These are generally designed in brilliant contrasting colors such as red and gold and blue. They may also be used as foot rests, and in any case give a great showing of vitality in the informal location. Some of the designs in their angular patterns and startling contrasts of bright colors have the required note of the unusual, fitting them for a modern interior. These leather floor cushions from Morocco will stand a good deal of careless usage. Time dulls their brightness only enough to give the lovely soft effect of age. The living room that uses one or two of these will probably be of Spanish persuasion. A sunroom also profits by them, but best of all is their use in a man's room or a college person's room where the gay colors, stability,

informality and simple lines have special appeal.

Such cushions have been for centuries one of the few pieces of furniture used by the Moors. Nomad people have little place for household appointments and what they do have must, like the leather pillow, adapt itself to camel or donkey transportation without danger of breakage. Today in Morocco every home of any pretension has a supply of these picturesque seats, although there is a tendency now to discard them

for European chairs of much less artistic interest.

Moorish civilization developed in a setting of desert or mountain in which herds of sheep or goats are the mainstay of existence. It is natural that the skin of these animals should have been commonly employed for Moorish leather. Its fine grades, its beauty and durability are known the world over. Bookbinders have for centuries been using this pebbled surface material for encasing the volumes enriched with tooled ornament. The leather used on the floor cushions is a less expensive grade but very strong. More conventional cushions are had of leather too, for use on divans, daybeds, dayenports and the like. These are square, round or other shapes, often hand tooled and soft to the touch.

The richness and warmth of color that all these small objects supply to a room are out of all proportion to their size. The virtues of durability and dignity, too, belong to leather, and make it practical as well as wonderfully decorative. Its soft, velvety texture is always appealing. The traditional colors, red, blue, green and the natural tone of the material, together with the enlivening of gold or the blending of polychrome treatments in beautifully embossed, almost sculptured

figures or engraved motifs, afford a wide range of effects.

The beauty of Spanish furnishings also supplies pretext for using beautiful leathers on a larger scale as in screens. One of the delights of leather screens is the individuality they make possible. There are so many ways of treating the material, not only as to the rich and substantial colors in which it is obtainable, but in ornamentation as well. They are embossed, gilded, tooled, illuminated, painted, lacquered, studded with decorative nails, and indeed may be decorated in many

beautiful ways.

Hundreds of years ago the leather worker made things only for kings; today beautifully wrought leather is made to please the esthetic tastes of everyone. A smooth, softly tinted, well dressed skin of leather has an indescribable charm. To the craftsman it is full of possibilities, and he loves to cover it with his fascinating and mysterious combinations of angles, circles, flowers and other designs. The enthusiastic workman with the proper tools, a good piece of leather, infinite patience and a high ideal, may create a work of art equal to those wonderful specimens that the museums display. Even artificial leather in the various preparations on a cloth backing that we find, does not diminish the use and beauty of real leather. The substitute as well as the original have in common their dust-shedding quality, their durability and wide range of usefulness. But the resilient "alive" quality of the real thing is not found in the substitute and gives it a distinction all its own.

And in addition to the intrinsic beauty and exquisiteness of decorative leather, there is the romance that seems to linger about it. In that ancient chest perhaps was kept the brocade gown of a Castilian princess, while in this delicately wrought casket perhaps are the memories of a

young girl's jewels or a packet of her love letters.

What the artist of the future will produce with this beautiful natural material to work upon, the knowledge of the past and the documents of other days from which to seek inspiration depends upon his own imagination, skill and interest. There is no doubt that the art of leather work, as many other crafts which are being revived today, will be developed into a field for some fine and original productions for this modern age

II. WHAT'S BEHIND THE SCREEN

The origin of screens, while lost in the dim past, was probably due to their way of satisfying the combined requirement of use and beauty that even in man's early history has been his twin goal. Centuries ago oriental peoples used them, and in China and Japan they were closely interwoven with the daily life. They have been used to mark avenues for the nobility and soldiers to march between. Even today, a plain white screen at a Japanese door denotes the birth of a child, and an inverted one indicates a funeral.

In medieval Europe, when house building was rather a perfunctory thing, screens were invaluable in protecting the inmates from the gusts of chill air that swept through the bleak halls. A huge fireplace piled high with logs provided the scant warmth, and again screens were required to protect the fire from blowing out, to concentrate it by the hearth and to shelter those nearby who might find either the glare

or the heat severe.

Fire-screens are used today, but changed conditions have evolved for this purpose a dainty type that was introduced by Hepplewhite who designed a great number of them and called them pole screens. They are ornamented with maps, needlework, Chinese figures and many other things of decorative interest. Their supports are loaded with lead to prevent toppling, and the whole device is fairly small and frail, supported by a little pole about one-half inch thick and three or four feet high, upon which the little screen slides up or down to the desired height. Other fire screens do not slide but consist of a single panel on a frame support. Modern air conditioning is depriving screens somewhat of

this use about the fireplace.

But aside from employing screens about a fire, they were found at an early age to provide privacy when this was not incorporated into any architectural blue-prints. In the great feudal halls of Elizabethan times, houses had no separate vestibules. A screen was therefore placed in front of the entrance door to hide the hall from the view of strangers. These Tudor screens of needlework and tapestry, often made by the women while the men were afield, were decorative, and frequently commemorated the daring deeds and exploits of the times. In many modern houses this custom of screening the entrance door has been perpetuated, but milder topics serve as decoration. Silks, brocades, velvets, embroideries and beautifully tooled and painted leathers may be found, and sometimes the medieval mood is preserved by the reproduction of a fine presentation of Sir Galahad or some other early hero.

When the weather is warm and one does not want doors shut, the screen used in this way affords privacy yet admits free circulation of air at the top. Allied to its use of removing drafts is its placing at the pantry door whereby odors of cookery and glimpses of the kitchen are kept out of the dining room, and the annoyance of the constantly swinging door between these rooms is eliminated as to sights. sounds, odors and breezes—rather a considerable achievement.

Many of us are still suffering from the rather recent craving for spaciousness in home-building that could be had only at the expense of privacy. One room led directly into another regardless of purpose or function, and all of them were open to the mercy of a common hall. When the reaction against this set in, doors were placed in all sorts of odd places and positions, ignoring symmetry and balance. In either dilemma, screens come to the rescue. When two rooms communicate by large doorways, the screen will afford privacy without infringing on that spaciousness which is had from the wide opening, and the vista is thus kept interesting without causing a sacrifice of convenience. In a small room with many door openings of this sort, a screen placed in front of one may be used as actual wallspace by placing furniture in front of it as one could never do before an open door. This is an innocent and helpful way of increasing the capacity and usefulness of the room. If the actual doors have been built into these openings, the screen is equally useful in concealing them and utilizing the space that is wasted by unusable doors.

Perhaps one of the most practical uses of screens, if one of the most obvious, is this matter of concealing things, and this very fact seems to add a sense of mystery and interest to the room. Those commonplace utilities that we cannot be without, but do not care to display, such as the kitchenette, the baby carriage, and all manner of housekeeping mechanism, may be relegated behind these comforting enclosures. Thus it is desirable to provide a decorative screen in the combination room so that a measure of privacy may be secured should strangers come in during mealtime, or lest a hostess should care to lay the table before the arrival of expected guests. The living room then remains a living room until after the guests have come, and when dinner is to be served, the screen is removed and reveals the setting for the meal. Similarly when the meal is over, the table may be screened until or while it is cleared, and living room activities may be agreeably resumed. The rich dignity of leather seems to combine with both living room and dining room purposes better than any other texture or material, and is an ideal choice when screens are being selected for utility and beauty.

There is much comfort to be had from the use of a screen in a large room that is used by the entire family such as a library or living room. The screen may be placed so as to create an intimate division where one person or a small group may pursue different activities from the other occupants, with just that desirable degree of semi-privacy instead of total exclusiveness. A low screen placed near a desk, a reading table or a chaise longue so as to conceal the occupant from the world about gives only a little privacy, but it seems to be just enough to prove delightfully welcome. Small screens perhaps not more than

four feet tall are often enough for this purpose.

One of the more recent developments in the employment of screens is found in their usefulness as backgrounds. It is a frequent experience that a piece of furniture does not show up well against the natural wall covering of the room. In such a case, a rich or vivid screen well chosen to contrast with the furniture in question will work wonders, the strength of its background bringing forth new beauties of texture and contour.

Perhaps more important than background for furniture is the capacity of a screen to serve as background for the occupant of a room. Its size may suggest the daintiness or the strength of a woman. Its color may explain her personality. Its ornamentation will reveal her taste. The large person in a small room may elect to use a screen with a bold pattern to add strength to it, or one of a cool, receding color to give it distance. The small person in a large room finds a screen useful to divide it and improve the scale.

There are structural uses of the screen that co-operate admirably with the home-maker in creating interesting background. Where much of the furniture is of the same height, monotonously low, like tables, divans and other broad pieces, a screen introduces a variety of line and makes the central part of the wall interesting too, so that the eye is raised from its dull journey constantly along the lower level.

In a long, narrow room, a screen set at right angles to the wall will counteract the misproportion. Indeed wherever there is a long, unbroken wallspace to deal with that seems hopelessly uninteresting, a screen will break the line of the wall by creating an attractive some-

thing to look at, and by affording a setting for a group of furniture that might otherwise look isolated and strung along awkwardly.

In a small room, some screens serve a useful purpose by containing a picture with deep perspective that seems to carry the eye beyond the plane of the room into the picture, as down a valley, through a woods, along a deep corridor, or to a distant horizon. By doing this, the eye does not come to a standstill at a blank wall but carries onward in such a way as to give an impression of distance and hence greater spaciousness to the small room. One of these distance-giving screens was of midnight blue, with a full moon topping the palms of the desert and casting golden reflections on the shimmering waters of the Nile. In sharp silhouette along the horizon, Arabs were riding camels into the night.

Since one normally expects a screen to be screening something from view, the screen should be so interesting of itself that it makes the spectator forget to want to search behind it. It should appear as a natural part of the decorative aspect of the room, fitting in so logically and beautifully that it is its own excuse for being, and no other motive for its presence is sought. Every screen, whether simple or pretentious, may be lovely in this decorative sense. There are such wonderful varieties to be had or to be made, that the only difficulty is one of elimination.

All screens should be both utilitarian and decorative. Do not have a "useful" screen that is plain and drab, for fine decorative opportunity is lost thereby. And do not have a decorative screen placed just anywhere unless it serves some useful purpose, which of course includes

decorative usefulness as well as the more practical.

The size of screens makes them conspicuous in the room ensemble. Their color, while it may be daring or vivid, should harmonize with the color of the room, and in character should conform with the other furnishings. An old Gothic screen, however beautiful in itself, would be out of key in a Colonial room. A room of heavy oak paneled walls and carved furniture would be spoiled by a light cretonne screen, just as a simple pastel room would fail to live up to a very elaborately carved teakwood screen. Textures should be in accord, too, and should be considered with relation to the other structural and decorative materials. Screens may be had lustrous with the sheen of rich material, or in simpler texture made vibrant with glowing color. The scope of pleasing possibilities is boundless. There are those that are made of brocades and silks, needlework or tapestries, tooled or painted leather. There are screens lacquered in the Chinese style or paintd on wood or canvas. They are even made of paper, porcelain or glass, indeed of anything that can be made into a plane surface and stood on end. Almost any wall covering, upholstery or drapery stuff will lend itself to screen covering if one is judicious in making selections. Wallpaper in its various expressions also makes effective screens.

Some screens are designed and decorated by artists and are products of the finest craftsmanship. In tone and color they may give

remarkable effects of brilliance, dash, contrast and verve.

Screen subjects are limited only by the designer. Subjects may be formal, decorative, or modernistic in design and are found depicting anything on the earth, in the air, or below the water, as well as architectural ideas, historical scenes and conventional designs.

Each panel of a screen should be as interesting in composition as is the whole, for the screen is frequently used partially opened. The angled surface of a screen offers a peculiar variation of light and shade that is of itself decoration. The different leaves of the screen, too, are apt to be seen from varied directions when the panels are irregularly spread, so that spectators from one part of the room may see only one fold of it. Hence it is desirable that each division of the screen should be pictorially complete.

Leather screens lend themselves exceptionally well to many of the purposes and locations mentioned. What can better supplement the col-

orful bindings of the books in your library, many of which may also be of leather! This material is equally the best choice for the living room, particularly if there is an open fire, for the glow of a firelight is never more effective than when it plays upon the smooth rich surface of the beautiful leather texture. The wide range of available leather screens, as to color, period, design, size and other decorative considerations, makes it possible to fill the need of any type of living room. For halls the screen of leather is also the preference, for here the draughts incident to opening and closing the outside door make a screen of heavy weight and durability especially desirable, and incidentally protect the voices within from too readily reaching the ears of the casual stranger. Leather is also the thing for a sun porch or sun parlor because these are so generally in Spanish or other Mediterranean style where the art of leather working reached its very height, and leather was one of the favored materials to appear wherever possible. In men's rooms or business and professional rooms the leather screen is an admirable choice for there is no nonsense about leather. It is as sturdy and durable from the utilitarian aspect as it is artistically rich and handsome.

The decorative distinction of fine screens makes it a real joy to use screens in the many ways suggested. They are immensely helpful factors in home furnishing and seem possessed of an almost magical power in correcting domestic difficulties whether decorative, struc-

tural, or psychological.

III. THE HUMAN SIDE OF MAP MAKING

Once upon a time the nations of the world knew little or nothing of one another. The hazards of travel in an uncharted world prevented people from going far afield. What lay beyond the horizon? Who dwelt there? These questions were answered by silence or by mythical imaginings. But necessity and curiosity joined hands and impelled discovery of these unknown places. Which way to a better land? How far to more fertile ground? These questions were answered by a map.

The first matters to be charted were direction and distance, and these are still essential to every map. If you hear of that better place you can keep going until you get there if you but travel in the right

direction.

To get this sense of direction you must start from somewhere. Today maps have the true north at the top. This was not always so. The religious movements of the middle ages developed special reverence for the East. Paradise itself was represented on the maps and was supposd to be in the Garden of Eden, in the East. But Paradise was Heaven, and Heaven was above, so the East was at the top of the map, and there it remained until the compass came along and displaced Paradise by pointing north itself.

Having north at the top of the map, we are used to the shapes of countries in this position. It would be the same world if we turned it upside down and had the south at the top, but try it once and you will see how unfamiliar and confusing it looks so. Yet the world is so upside down in most particulars right now, that perhaps it would be more true to print the maps that way after all.

A map is not earth size, of course, so that distances must be represented to a scale. Otherwise your map is too vague to have much use. It is harder to do this than to get direction because a knowledge of mathematics is needed both to measure distance on the ground and still more to show it on a map. In some parts of India a unit of measurement, the krosh, is given as "two statutory miles, more or less." In the jungles of Bengal they have a custom of breaking a branch from the wayside, and when it wilts it is considered that a krosh has been traveled. They do not realize that this varies with the season, the type of tree from which the branch is taken, the speed of the walker,

or his idea of wilting! Obviously mapmaking could not advance far until some facts of mathematics and astronomy could be applied. The best early maps came from Egypt, Babylon, China and Greece where these

abilities first flourished.

The absence of such knowledge in most of Europe during the middle ages led the monks who made the maps never to leave any blank space on a map. To do so was an open confession of ignorance. They filled up all vacant areas with elaborate decorations—sometimes of fantastic creatures, or of legendary tales. Through the 18th century maps were decorative rather than practical, truly works of art, and are even now collectors' items of rich beauty. Perhaps as an alibi to conceal their lack of accurate data, the idea was allowed to get around that accurate

observations would be of value to trade rivals or enemies.

Of course, there were always some serious geographers who tried to promote accuracy in maps. Ptolemy, a famous Egyptian astronomer of the 2nd century, was first to draw the equator upon a globe and measure off the lines of latitude and longitude. Such lines, he explained, would locate any place on the map better than any amount of description. He also pointed out that a flat sheet of papyrus or paper would not fit around a sphere and that flat maps would involve too much distortion to be accurate. For a long time he pondered, "How can I show a map of the globe on a flat surface without too much distortion?" And then he had an idea. He took a cone and fitted a piece of papyrus around it tightly. It went on without any bulges, and when he took it off, it could be flattened out. He placed the cone, which was hollow, over the globe as far as the equator and drew his lines upon it. Then he took another cone going from the south pole to the equator, and so invented the conical projection for flat maps. Ptolemy's contributions to mapmaking were of great importance, but during the centuries new discoveries were made which were not on his maps. Moreover they had some inaccuracies of their own due to the unreliability of his sources. although his scientific methods were correct.

Mercator, a Flemish mathematician in the 16th century recognized the troubles with the earlier maps and decided to make something that would combine their advantages and remove their faults. Where Ptolemy used a conical projection, Mercator devised one based on a

cylinder, and this solved the problems he had set himself.

The difficulties of making a map increase when we try to show on a flat surface the variations in height such as hills or mountains, yet their importance is too great to overlook. Mountains are not only a distinguishing physical characteristic of a region, but they affect rainfall and climate: they are the sources of rivers; they influence the amount of timber or the agricultural conditions; they serve as political boundaries and in many other ways. At first glance it would seem that the best way to show these would be on an actual model. However, models are costly to produce and cumbersome to handle, as they cannot be rolled, bound, folded or otherwise carried around conveniently. Most important, however, there has to be a different scale used for horizontal and vertical distances, else a relief model of the globe without such a difference would show little more in the way of relief inequalities than the skin of an orange. For example, Mount Everest is only 1/2000 of the earth's diameter. On an 18-inch globe, it is estimated, it would be represented by less than 1/100 of an inch. Thus the highest mountain in the world wouldn't even show!

A map combines the qualities of a picture and a book. Elevations of mountains or depths in water are depicted by forms of shading. A town is indicated by a dot, a road or river by a line. Codes of color can be employed, and other conventions are customary. The mapmaker must exercise some choice in the matter of naming places. He has to decide whether to use an American form of a foreign town or its native name, or one recently changed as an expression of national self-determination. Koln or Cologne; Dublin or Baile Atha Cliath? Praha or Prague;

Munchen or Munich? This grows even more complex if the alphabet used by the natives is not related to a European one. There seems to be quite an assortment of spellings for the names of places in Persia (itself called Iran), China, India and other oriental lands. Maps should, of course, be clear and uncrowded, and the mapmaker should decide

at the outset which kinds of things he must emphasize.

Of course, since Mercator's Atlas appeared in 1585, mapmaking has grown continuously more scientific and accurate. The modern era of discovery and exploration does not consist in the vague adventuring by land and by sea which in a large measure constituted discovery up to the time of Captain Cook—and in some parts of the world long after that time. Today's cartographers have precision instruments and theoretical knowledge far beyond any then in use. Mapping by airplane, for instance, is one of the newest and most popular methods, giving access to hitherto inaccessible places. Telegraph, cable, radio, weather bureau and countless similar services have simplified the work of mapmakers and at the same time have given them far greater responsibilities. There is so much less excuse for them to be other than strictly reliable.

The modern mapmaker is an expert and his results go to experts, whereas the early seafarer was more of a rough and ready adventurer who took a long chance hoping for gain, and did not care too much if he lost. By the old methods and equipment much of the world was discovered by accident. Desire for trade and wealth, missionary zeal, piracy, or sheer adventurousness were the usual reasons for exploration. In those times an explorer would ask for a little money to find a land that one could see and profit by. Today explorers like Roy Chapman Andrews require a quarter of a million dollars to explore a portion of the Gobi desert for knowledge of a world buried millions of years ago; not for financial profit in any way but for study of rocks and skeletons to reveal the beginnings of life on earth. It has been pointed out that while Columbus spent only about \$2,000 to discover America, Byrd needed over \$1,000,000 to enter the Antarctic. He spent nearly \$200,000 merely to make a 17-hour trip over the North Polar Sea by air. Few modern explorers are able to take a large scientific staff into the field under a cost of \$100,000.

When explorers have mapped the surface of the earth, will the job of mapmaker be finished? By no means. The whole idea has expanded and will continue to do so, for map making means many things to many people. Alexander von Humboldt, for instance, was puzzled by the fact that London was farther north than New York and yet was warmer in winter, while other places in the same latitudes varied in temperature. He began to plot new lines on the map running through places having the same temperatures, just as each line of latitude runs through all places of like distance from the equator. The temperature lines ran zigzag all over the map. He called them isotherms, and today no student of geography can do without his isothermic map. He followed this up with many other queries about the climate, and from his extended travels in South America and elsewhere he remembered certain facts. The height above sea level counts in climate, he knew from some of his own exciting mountain climbs. Mountains affect the rainfall too, he recalled. In his marvelous book, "Cosmos," the science of physical geography was born, and Humboldt showed us a new way to look at ourselves and our earth.

Following the work of Humboldt and others, Joseph Henry gave us the daily weather map with its high and low pressure regions and other data. Again, four-fifths of the earth is under water, and this is a great field for investigators. Years ago, Lieutenant Maury of the U. S. Navy devoted his life to describing and mapping the sea—its currents, winds, temperatures, depths and many other qualities. Through him, the father of oceanography, navigators can take advantage of the most favorable winds and currents and many other benefits. Other types

of explorers, like William Beebe, map the land of the fish, the actual depth and bottom of the sea, while Auguste Piccard did the opposite and soared 10 miles into the stratosphere. John Milne investigated the inside of the earth—the causes of earthquakes, and improved the seismograph which gives warning of impending disasters of this kind. And so today we still live in an age of discovery, and the vague notions of far-off countries give way to the most precise records. Accurate measurements of distances, heights, weather conditions, geological conditions; productive regions of the earth—its oil, minerals, wheat and other economic resources; plant life, animal life, human distribution, wealth maps, health maps—all these open fields of interest, work and achievement.

A basic necessity for compiling up-to-date maps is the collection and analysis of geographic and economic data. Several hundred thousand maps, charts, geographical reports, statistical records, post office guides, survey and exploration reports, historical notes and handbooks from all parts of the world are available for intensive study and research carried on by cartographers. All this research, traveling, surveying, compiling and drawing are essential to the production of the modern map. And today changing conditions make other maps of vital importance. One long-established concern publishing maps is in touch with all foreign governments through a branch office in Washington which contacts all the embassies. They consider a man in their cartography department an apprentice for the first three or four years of servicewhich will give you a clue to the difficulty and importance of this type of work. New or old, maps and mapmaking are powerfully fascinating, bringing the world of war and work, peace and plenty, romance and reality, before our very eyes in a glowing panorama of adventure.

IV. THE PECULIAR PACHYDERM AND HIS PRECIOUS IVORY

Ivory has been called the white gold of ancient kings. Its beautiful texture, rich color and adaptability for delicate carving have attracted men of all times. Certainly for its grace and beauty, its varied uses in every land, and for the bloodshed and suffering involved in acquiring it, ivory may well be classed with gold and precious gems.

From its very beginning this odd substance has been identified with the history, romance, art and adventure of the world and has held a leading place as a material for making the smaller luxuries of life. It is a synonym both for barbaric splendor and for civilized refinement. The Bible contains numerous allusions to the beauty and richness of

ivory where it appears as a metaphor for loveliness.

At the very dawn of human life on earth, the cave man left sketches of animals incised on ivory. Coming down the ages, archeologists digging with their inquisitive spades in scattered places bring us examples now of the ornamental ivory hair comb of a prehistoric Egyptian princess, and again, the ivory-handled walking stick of some gouty old Greek who lived a mere 2,000 years ago.

In other words, while there are periods in history for which no sculpture survives in stone, wood or other materials, ivory rounds out these intervals and permits us to trace, if we wish, the complete story of sculpture without interruption from the Stone Age to the present.

There are several types of ivory, chiefly that of the elephant, of its forerunner, the mammoth! the walrus, and the hippopotamus. Here we refer only to elephant ivory. The other types are negligible in comparison.

The elephant has many peculiar characteristics and many of the things we have been brought up to believe about it are wrong. The elephant cannot turn its head around like the average animal because it has a short neck. If it wishes to see what is going on behind, it has to turn its whole body around. This makes it nervous of being suddenly

approached from the rear. An elephant cannot jump. That is, it cannot take all four feet off the ground at once. Hence a shallow ditch which a horse or even a dog could cross, will completely halt an elephant. But aside from the whale and a few others, the elephant is considered one of the best swimmers of all the mammals. Dogs seem to frighten elephants badly, but mice are still worse; for some reason a mouse throws an elephant into a panic.

Elephants reach maturity between 15 and 20 years of age. They are considered old when past 40, and contrary to the popular belief of their longevity, few live to become 50. The average adult elephant is about eight feet in height, though they occasionally reach 10 feet, and the famous Jumbo measured 13. An average weight is between four

and five tons.

The male elephant has periods of disturbance during which he is highly dangerous and should be securely shackled. The attacks can be foretold in advance by the appearance of an oily discharge that exudes slowly from a hole in the temple. When this has trickled down to the level of the eye, fury is let loose and he will try to kill anyone he can reach.

Normally the elephant is intelligent, highly efficient and easily trained to use his powers in the service of man. In fact, Dr. W. Reid Blair, director of the New York Zoological Park, holds that the elephant stands third among the 10 most intelligent animals, in terms of original thought, memory, reasoning power, imitativeness, and capacity for training. Only the chimpanzee and the orang-utan excel it.

The elephant is the philosopher of the animal kingdom. No other creature is so powerful or so difficult to capture, and yet none so promptly seems to realize man's superior skill. A fully adult elephant may be captured in the jungle today and within a month he will be broken to steady work in the timber forests, trained to do at least 16 different tasks at command. Among cats, dogs and horses, only the exception is susceptible of high training, and usually must be started young. But an elephant seems never too old to learn, and every elephant is a star performer.

Two more curiosities are that the elephant is said to sleep for only three hours of the 24, and that it has such a *thin* skin that it suffers torments from the bites of insects. It is a shade-loving creature and the exposure to sun makes it unhappy.

Of course, it is the elephant tusks that are the source of ivory. Tusks average from eight to nine feet in length and weigh about 70 pounds. The tusks are known as teeth, and this designation is correct, for they are the upper incisors of the animal. They grow during the entire lifetime of the elephant, both outwardly so that the solid portion protruding from the head becomes increasingly longer and thicker, and inwardly as the part which is set in the skull—about one-third the length of the whole tusk—contains a pulp chamber which gradually becomes shortened and constricted as the beast ages. The growth of ivory does not depend upon the size of the animal.

A nerve runs the length of the tusk, the canal of which is visible as a black speck at the pointed end of the tusk. It is the same nerve canal that is visible on opposite sides, in the exact center, of an ivory billiard ball. Along this nerve the elephant sometimes gets an abnormal growth or state of disease which causes excruciating pain.

The task of hacking out elephant tusks is a fearsome business. The elephant does not shed its tusks. They are only available after the animal is dead. There is only one pair to an elephant. They do not grow again. It requires hours of careful chopping in a fresh kill to free the tusks from the bony sockets which terminate almost on a line with and between the eyes. Owing to the enormous bulk of the head, it involves cutting the skull to fragments, as the head is much too heavy with these 10-foot, 60-pound tusks to manipulate otherwise. The only alternative is to leave the carcass several days until decomposition

has advanced sufficiently to permit the tusks to be drawn without chopping, but that has other disadvantages.

Ivory from a female elephant is considered worth more than that of the male. The two can be distinguished by the grain, which in the case of the cow is a mass of short broken lines while in the bull the lines are continuous.

The story of the acquisition of ivory in the 19th century is also that of Africa in the most cruel aspect of all its tragic history. The slave trade and the ivory trade were one. Probably never in any other land or age did the natural treasure of a continent bring upon it so cruel a fate over so immense a territory as was Africa's in the years of the domination of the Arab ivory raiders. Natives were forced to deliver their accumulations of ivory, enslaved when they could produce no more, and sold for more ivory as human meat to cannibal tribes. Then others were enslaved to carry the ivory to the coast where the captive survivors were sold along with the tusks they had carried, bound

to them by clanking chains.

All ivory is divided into two great classes: hard, and soft. The latter contains more moisture and does not crack so easily, while the former is more transparent, has a more glasslike surface, and is more difficult to cut. Soft ivory is therefore preferable and this type is found more freely in the east coast of Africa, in Liberia, the Gold Coast, especially the Cameroons, Gaboon, Loango and the Congo. It is also ordinarily exported from Abyssinia, Egypt, Zanzibar and Mozambique, and in Asia from Bombay, Siam and the Malay States. The supply of African ivory has not only been many times greater than that of Asia, but the African tusks also run larger and are of superior quality. Siberia has some large deposits of fossil or mammoth ivory in the tundra surrounding the mouth of the Lena River. Though these tusks are many times larger than those of elephant ivory, they are usually defective and of little commercial value so long as a good supply of African ivory is obtainable.

An important commercial use for ivory was found in billiard balls. In a recent year one large manufacturer of pool room equipment turned out 25,000 balls. As each pair of tusks will produce seven balls on an average, that year's production required 3,571 elephants. It has been estimated that about a million balls have been produced in the past century, involving the lives of 286,000 elephants. Ivory has been used as the ideal substance for billiard balls for 700 years. Before that, the game had been played for 2,000 years with brass balls, and it was known still earlier when wood was the material employed.

In the middle of the last century, world supplies of ivory threatened to run low. A contest was held with a prize of \$10,000 for a substitute material to use for billiard balls. In 1868 a young American printer, John Wesley Hyatt, thought this worth trying for. He created a substance which was not to be found in nature and which could not be reconverted into its original components. It was the first plastic. Hyatt made a fortune out of its successful commercialization in the forms of combs, brushes, knife handles and other common objects under the now familiar name of celluloid. Many an elephant now roaming the veldt owes his life to Hyatt's test tubes. Once thousands of these heavy pachyderms were slaughtered to satisfy the feminine desire for ivory toilet accessories and the masculine desire for ivory billiard balls. The herds dwindled before the elephant gun and ivory became scarce. Since Hyatt's celluloid, new plastics and improvements have been made. Plastic billiard balls differ chiefly as to color, lacking the rich, smooth creamy whiteness of ivory, and do not take the same polish. They are not so sensitive to climatic changes as the genuine, and never get out of true, but they still develop imperfections and split occasionally.

The most important commercial use for ivory is in piano keys which require more ivory than all other purposes combined. Ivory is the ideal material for the piano keyboard. It is yielding to the touch, yet firm:

cool, yet never cold or warm whatever the room temperature; smooth to the point of slipperiness so that the fingers may glide from key to key instantly, yet presenting just enough friction for the slightest touch of the finger to catch and depress the key and to keep the hardest blow from sliding and losing its power. The process of making the keyboard looks like a simple, standardized thing but is almost an art in itself, embracing several processes. While awaiting attention the ivory is stored in vaults, protected from light, temperature changes and humidity. Then the keys are cut, marked by a planner to get as many pieces out of the tusk as possible; then sawed, sliced, bleached, graded, glued, pressed and so on. Because of the never uniform quality, texture and susceptibility of ivory it is a task which requires constant expert judgment to overcome the peculiarities of each tusk of ivory used.

Ivory has held sway as a favorite of every prehistoric and historic period of art. In ancient India, ivory carving reached a high grade of craftsmanship. Ivory combs have come down to us with pierced and relief work representing the Buddha surrounded by richly caparisoned elephants and other decorative treatment, showing how the most common-place objects were beautified by the skill of gifted artists and craftsmen. Ivory has ever been one of the favorite materials of China and Japan and examples old and new typify the patience and skill of both these peoples. A luxurious emperor of the Second Dynasty (1766-1122 B. C.) started the fashion of using ivory for his chopsticks—a fashion which in spite of being condemned at the time proved such a

success that it has not yet died out.

It is difficult to believe that the carved ivory balls, one inside another, sometimes to the number of 20, can be produced by these people without recourse to some sort of magic. Of pictorial ivories the modern Japanese craftsmen showed the highest technical skill, combined with a keen perception of nature and movement. Experts tell us, however, that their ivories lack the beauty and dignity of composition and the decorative treatment of the early and medieval examples. Where a certain formal conventionality marked the treatment of Chinese carving that of Japan was characterized by realism and spontaneity. Here the artist in ivory produced figures of exquisite grace and charm. For subjects they chose to depict their mythological and legendary heroes, and great complexity of detail was wrought into their carvings. They were done with remarkable technical facility. Costumes of lavish and picturesque beauty were portrayed with perfect fidelity and beautiful rhythm of line and curve.

The Roman period in distinguished for the so-called consular diptychs of which museums have some excellent specimens. They consist of two ivory panels usually about 5 by 12 inches. The inside has a slightly sunk plane covered with wax to write upon. The outside is adorned by delicately carved reliefs. These objects were given by new consuls upon their appointment to officers of state, and friends.

During the period of between the 8th and 10th centuries ivory was extensively used for small chests and coffers. In Italy and France during the early Gothic period, large numbers of ivory crucifixes, pastoral staffs, croziers, statuettes and triphtychs were produced. Later the Renaissance gave us ivory combs and mirror cases with the reliefs of allegorical and legendary stories, showing the application of art in its highest forms to the lowliest of objects.

A beautiful treatment of ivory was developed by the Saracens of Egypt in the 13th and 14th centuries. It was their custom to work a fine geometric inlay of ivory upon ebony. In some examples ivory panels were five or six-sided or star-shaped. They would be carved with delicate arabesques, and the framing of the pannels would be of ebony or cedar.

Ivory has always combined well with gold, silver or other metals as well as wood, and has accordingly been used realistically where flesh

tones are needed.

The height of modern ivory working is represented in the ivory

carvings of the late Moreau-Vauthier. A number of his works are in this country, and show so much originality, such a thorough understanding of the capabilities of his material, and such an appreciation of the best traditions of the art of ivory carving, that his work is described by

experts as in a class by itself.

Chryselephantine sculpture is the name given to that blending of gold with ivory to which some of the grandest works of Greek art owed much of their beauty. A revival of this art took place in recent years due to the abundant supply of ivory derived from the Congo region owned by Belgium. Ivory working then received practical encouragement from the Belgium Government. Realizing that the high price of ivory prevented many poor artists from obtaining the material, the government arranged to furnish them the ivory at cost price and give them credit for four years so that they could be practically assured they would have received the price of their art works before they would be expected to pay for the ivory. This policy was instrumental in the production of many exquisite pieces by such highly skilled ivory workers as Christian Van der Stappen, Frans Huygelen, Arsene Matton, Thomas Vincotte, Floris de Cuyper, Victor Rousseau, Jean Herain, Godefroid Devreese, and others.

Ivory has been much used as a base upon which to paint miniatures. These are always in water color, not oil, and must not be washed. They

may be cleaned with gritless rubber having no pumice.

Ivory is sensitive to dampness and temperature changes. It is a special art to frame ivory and requires someone who understands the peculiarities of this lovely substance. Nothing should be fastened or glued to the back. White or cream-colored paper free from arsenic is then placed loosely against it. Next a narrow rim of flat metal is inserted so the ivory does not touch the glass in front. Ivory expands and contracts laterally. An ivory miniature should be 3 percent narrower, laterally, than the frame, for unless this is done the ivory will buckle after a time. These are but a few among other particulars that should be known in dealing with this sensitive material.

But whatever its temperament, there is always that warm, mellow, almost transparent tint which intrigues the collector and challenges the craftsman, and doubtless no matter what the synthetic products of experimental scientists may produce, real natural ivory will continue to be sought in the jungles and will hold the same prestige and beauty

in the future as it has in the past.

V. A MEDIEVAL CITY OF MINOR ARTS

When a painter speaks of quality in a picture, he means an appealing something that it is difficult to describe by any other name. It is that atmosphere or finish without which the picture is not a work of art. In this sense Bruges too has quality. Atmosphere, finish—these only suggest it.

This noble old Belgian city today stands aloof from modernity. She clings to the memories of her glorious past. She rests, at peace with

herself, after a life of loyal service to the world.

In this busy age, repose is rare, and when one comes upon it unexpectedly, it is at once reviving. Bruges offers you this restfulness, this opportunity for quiet reflection. She is beautiful with a tender beauty of idyllic landscape, with brooks and bridges, trees and swans and gabled houses. She is beautiful with a sterner beauty of medieval buildings and majestic belfry. She is beautiful with a stimulating beauty of rarest paintings and fine craftsmanship. She is beautiful with an intimate beauty of thrifty, kindly people. Her beauty appeals to the eye and to the soul. Bruges is a town of exquisite feelinga living example of a city hospitable to the minor arts.

While Bruges is more than a thousand years old, the town did not

become important until the 13th century when it was the chief market of the Hanseatic League, that band of northern cities which grouped together to protect their commercial interests. Belgium in the north, like Italy in the south, formed the commercial and industrial center of the times, and in those days Bruges presented one of the safest harbors in the north. Before England or France had found themselves industrially, Belgium was already established in commercial enterprises of

world extent, and ranked with Italy in wealth and culture.

Bruges became the European headquarters and exchange for the rich fabrics of the Orient, for fruits, spices and perfumes, for furs from the north, for English wool, Dutch flax, French wines, Italian silks, leather, glass, gold and silver, and merchandise of every then known variety. Work that we now expect to be made by artists and craftsmen was offered for sale along with ordinary objects. Art was thought of as sound, fine ordinary work. There was no distinction as of a thing apart. At the beginning of the thirteen-hundreds, banks and consuls of the chief nations of the world were to be found here, and by the middle of the century, the records tell us that 150 foreign vessels came in a single day into the docks of Bruges. Streets, quays and markets were thronged by busy people. The rich attire of the Hanseatic merchants with the badges of their powerful guilds upon them lent, we can imagine, a glow of color to the prosperous city. In the markets, too, were the money changers literally guarding the wealth of nations and adding excitement to the already animated scene. Here one could learn world news from everywhere long before it became known elsewhere.

Naturally with all this prosperity and the culture that comes of wide intercourse, a love of beauty arose, and there developed fine buildings, and the arts and crafts were encouraged. Here came Hans Memling, in 1477, and wrought some of the exquisite paintings that we reverently visit today. Jan Van Eyck, who did so much for the art of oil painting, spent 12 years in the town. Colard Mansion, a leader in the printer's art, also worked in Bruges. Beautiful lace and Flemish tapestries began to be made. Soon the brilliant and intellectual court of the dukes of Burgundy was brought to Bruges and added still more to its glamor. Truly

Bruges was great and Bruges was beautiful.

What stopped it all?

It is a melancholy tale. The chief waterway from Bruges to the sea began to fill with sand, and nothing that the people could do would avert the evil. Indeed, other events occurred that even discouraged the effort. There was the gradual breaking down of the Hanseatic League. There were the awful insurrections against Maximilian. Religious dissensions made trouble. The discovery of America brought about changes in commerce and developed other directions and other systems of procedure. The greatness of Bruges declined.

But those days of grandeur left their mark, and all about us we may see the evidence. Bruges today may be quiescent, but she is still dignified and still beautiful. She is marred by no ugly warehouses such as further prosperity would have brought her. Her waters are undisfigured by the mechanics of industry. In all things are compensations, and Bruges remains to us today a medieval city of distinction.

Leaving the railroad station (how incongruous it felt to enter the so quaint city by this modern means) one was in the Rue Sud du Sablon the Main Street of Bruges, and perhaps the most animated. Many of the shops were gleaming with old brass and copperware, and the laces for which the women of Bruges are long famous, were also much in evidence. I was charmed, on entering one of these shops, to hear a delightfully melodious tinkle announce the opening of the door. The shop was unattended, but the glass chimes suspended from the door brought forth a young lad to wait on me. This seemed so much more personal than our electric bells, that it felt like a special welcome to Bruges.

There was little individual about the dress of the people; it was

for the most part rather somber: occasionally a black-cloaked and hooded woman was seen. The cloak was full length and had the hood attached. Churchmen also wore black robes and flat black hats. Sometimes a peasant woman with close white cap reminiscent of Holland might be observed, and as elsewhere in Belgium, there were the strong, large dogs drawing the little carts. The houses were of deep redbrown or soft cream colors, steeply gabled, and many of them mellowed by the passing of centuries.

At the end of this little street stands St. Sauveur Church, one of the monuments of Bruges. Rare and valuable paintings are in the church museum, and represent the work of Thierry Bouts, Hugo van der Goes, Lancelot Blondeel, Pierre Pourbous and other Flemish masters of the 15th and 16th centuries. The central nave, large and severe, has an architectural peculiarity that is seldom seen: the gallery over the side aisles and the windows above it are of the 13th century, and repose

upon a building of the 15th. I did not find out why.

But we want to see the Belfry which is towering not far away, so we promise ourselves a more thorough visit to St. Sauveur later. meanwhile almost breaking the heart of the protesting father who cannot bear to have us leave the building before glimpsing at least some more of his treasures. But we escape from his solicitude into the Rue des Pierres which leads picturesquely to the Groote Markt. We pass the Simon Stevin Square where we see the statue of the inventor of the decimal system, Stevinus, born here in 1548.

The Groot Markt or Grande Place, where stands the belfry and the halles of which it is a part, is, as it has always been, the heart of the town. To it the burghers came when the chimes of the belfry summoned them, whether for war or some peace-time meeting. The laws and proclamations were announced to the people from a balcony in the belfry. Today in the Grande Place are all the cab-drivers of Bruges looking for "fares" to whom they may show the city. But Bruges. more than most places, repays one best on foot. Its area is not great, and cabs do not further any intimate appreciation of the town.

The belfry, towering grimly over the city, is familiar from frequent illustrations, but these tell nothing of the interesting interior or the outlook from the top, over the whole Flemish plain. In olden times a guard in the lookout of the tower could detect any approaching enemy long before danger would be imminent. Today one may still from the platform of the belfry enjoy an expansive view over distant

roads and waterways.

There are 400 steps in the 350 foot tower, but there are three stories each of which offers points of interest to the visitor, so that the climb is agreeably broken. The first floor, dating from the 12th century, contains the room of the Treasure in which are guarded the archives and privileges of the city. The second floor 13th century, is lighted by two high windows and holds the Bourdon or the Triumph Bell which is said to weigh over 16,000 pounds. The latern is the house of the chime and is divided into three rooms, one on top of the other. The lowest has the clock; the second has the keyboard from which the chimes are directed, and the top one contains the famous 47 bells whose diameters vary from .19 to 2 meters, and which sing out over the roofs every 15 minutes. On Sundays, Wednesdays and Saturdays, for 45 minutes before noon, these chimes play a concert. To see this mechanism is a unique experience, and to hear it at close range is decidedly stirring.

A small street, the Rue de la Bride takes us from the Grande Place to the Place du Bourg where some of Bruges' most important and most beautiful public buildings are centered. To anyone interested as most travelers become, in the development of architecture, an opportunity is here presented to study its history. We find in full view of one another the St. Basil Chapel of the Roman period; the early Gothic Chapel of the Holy Blood; the later Gothic Hotel de Ville which is one of the most gracious monuments of the city; the Frank Registry is Renaissance, and there are others, all of interest. The Square is peaceful, and shades with trees, there are cafes with outdoor tables from which one may conjure up in comfort the many images that sug-

gest themselves.

The inside of the Town Hall is as interesting as the outside and contains a number of features for the lover of beauty. The Gothic Hall displays some excellent 14th century woodwork of symbolic significance, and, in the 19th century, Albrecht de Vriendt painted some historical subjects there showing the life and interest of the city that are of real delight to those who seek a vivid impression of bygone days in Bruges.

In an adjoining building entered through the Law Court, is another of the gems of Bruges, the Chimney of Franc which is a remarkable example of the art of the craftsman in wood, made to glorify Charles V when France acknowledged the independence of Flanders. The artist was Lancelot Blondeel, one of the geniuses of the Renaissance. The Chimney-piece is of splendid black marble pillars supporting an alabaster frieze. This is surmounted by carved woodwork almost the width of the room, perhaps thirty feet, covered with sculpture in wood

recalling the circumstances of these historic events.

It will not do too long to postpone paying homage to the work of Memling. Indeed in spite of the many beauties that the city offers, visitors whose time was limited, often made directly for the Memling pictures and overlooked everything else. They are housed in St. John's Hospital, a typical medieval structure, some of which dates from the 13th century. It is interesting to know that the pictures were painted for the hospital especially, and have always remained there. Here we see The Mystic Marriage of St. Catherine, a large altar screen; the Adoration of the Magi, a little triptych that is a perfect gem, and other works. Most important of all is St. Ursula's Shrine, a Gothic reliquary, 91 x 33 centimeters in size, the whole being ornamented with miniatures in oil that represent in eighteen different subjects the legend of St. Ursula. Its delicacy and beauty are exquisite and its mystic sentiment is truly appealing.

The work of Jan Van Eyck is best seen in the Ancient Masters' School of Bruges, installed in an old orphanage in Rue St. Catherine. Here too may be seen paintings by Gerald David, Lancelot Blondeel, Pierre Pourbous, Memling and others, of the greatest interest to the

art lover.

A few steps away from this academy and we come to one of the most charming places in all Belgium, the ancient Beguinage of Bruges. The little group of buildings, six hundred years old, is occupied by sisters of mercy in long robes and white head-dress. The buildings lie close to a motionless bit of water that images the quaint roofs, the white walls nestling in the grass, and the shadowing trees. The peaceful setting has a rare charm and picturesqueness to which the gentle sisters unmistakably contribute.

The Museum of Laces should also be visited while in Bruges, for it is the richest and most complete perhaps in Europe. There are more than four hundred pieces representing the work of other countries as well as Belgium, many of them ancient fragments as rare as they are beautiful. The Museum is housed in the 15th century Hotel Gruuthus, itself one of the sights of the city. It is on the banks of the lovely Dyver, and for a few weeks gave refuge to King Edward IV of England when Warwick drove him out of the country. The building is imposing both inside and out. The stately staircase, the finely decorated rooms are all of interest. Some excellent craftsmanship in wood is to be seen, and in addition to the lace museum, there are collections of money, medallions, pictures and ironwork. On the Dyver there is also the Hospital Museum, its red brick facade reflected in the placid waters, and here too may be seen pictures, tapestries and antiquities by masters of the 16th, 17th and 18th centuries.

One has only to wander about Bruges to come upon scene after scene of natural beauty. Take a boat about its waterways, under its arching bridges, where soft-hued brick dwellings and venerable trees melt into the splashing water; where stately swans sweep away from your approaching boat with great dignity; where winding vistas constantly change the outlook, showing now a distant spire, now some women making lace in the street, now some fine old building, now an outdoor market with its thrifty patrons, now a quiet, almost deserted quay where once was all the gaiety and life of a thriving port.

Stroll along the Quai Vert or the Quai du Rosaire. Saunter about the banks of the Minnewater, that "love lake" and idyllic spot. These places are poetic. They are untouched by progress. They are modern because beauty is always timely. Yet they have a mellowness of age,

the "quality" that the painter means.

Bruges today stands aloof from modernity. She clings to the memories of her glorious past. She rests, at peace with herself, after a life of loyal service to the world. Truly, Bruges is a town of exquisite feeling.

VI. NUDES

What to do about nudes, if anything, is always more or less of a ticklish problem. No matter how 20th-century we are or wish to be, some of us have inherited enough from the Mauve Decade, or have been surrounded by the traditions of Victorianism to such an extent, that the very word, Nude, is often veiled in whispers even if the object itself is veiled in nothing more than the atmosphere.

Many of us, on the other hand, in an endeavor to camouflage our age, or in the belief that it is smart to go in for the unusual, have swung to the opposite extreme. We flaunt as few clothes as the law allows. These as far as possible, are flesh-color, sun-tan or what not, and the modernists who are responsible for naming the season's colors have long ago adopted Nude as one of the "without which nots."

With the unashamed frankness with which our modern Miss approaches the world, the nude has entered quite naturally (in both senses) into her schemes of decoration, and is as interesting to her as it has long been to her blushless brother. Whether it is received with equal favor on the part of everyone is still a debated question. Our modern grandmothers have for the most part learned to accept it, but there may still be some irreconcilables and die-hards to whom the idea is unpleasant. It may be a comfort, therefore, to know that the nude has an authentic place in art, whether conservative or radical people are to be pleased, and there is plenty of it which will give offense to no one.

There is so much real beauty in the human form divine, that it is really losing a constructive opportunity to do something fine, if one goes in for suggestiveness, vulgarity or perversions. The subject of the nude, whether sculptured or pictured, should emphasize the positive virtues of beauty, bravery, courage, innocence and the like, and never by any kind of intimation or innuendo should it do the opposite.

I do not mean to claim that the piece has to be so dull or heavy in theme that it loses its human quality. Humor in nudes is a possibility, but it must be handled delicately and carefully. The line of demarcation between humor of the genuine kind, and some of the would-be imitations is slight, and often just the variation that may be in the eye of the uncultured beholder will distort an impression that is intrinsically proper into one that is perhaps obscene. The best basis for humor in nudes is to have it based on planes higher than the physical. There are many mental, moral, emotional and spiritual situations that lend themselves to humorous treatment without imposing any suggestiveness of questionable order.

Nothing interests us more than ourselves. Man's actions, his movements are perhaps the only things we comprehend directly without effort. Hence there is nothing with which we are familiar that possesses such artistic possibilities as does the human form. Since art began, it has been the chief object of interest for painters and sculptors. The human mind does not always understand that the embodiment of art is not a thing of organs and muscles but of spirit and truth. Those who protest too vigorously against the right kind of nude in art do not discriminate. Often they are ignorant or salacious, and do not see beyond these limitations.

The proper understanding of the anatomical construction of the human body is the foundation of all art knowledge. Artists prefer to draw the figure nude before arranging the drapery upon it. This method assures solidity, proportion and truth in the finished painting. When the painter dispenses with this preliminary drawing, as in the case of portraiture, he must rely for the success of the work on the knowledge gained from long years of study from the naked figure. No matter how elaborate the robe, the trained eye of the artist sees the

form beneath.

But there exists a much stronger reason why artists have devoted themselves to the study of the nude. If ideas are to be graphically expressed, they must be incarnated or materialized, so to speak. As the human being is the channel for the expression of ideas in human life, so the human figure is the only medium for expressing these abstract ideas in art. If a great or a simple idea is to be expressed, such as fear, love, hope or despair, the figure must be natural, hence nude.

Often nudes have a slight veil either in the sculpture or the painting. Whether this addition to nature is desirable or not depends upon the artistic merit of the performance. The delicacy of a veil on a bit of Orrefors or Lalique glass, for instance, is in itself a thing of beauty. But if the veil is so drawn over the figure as to tantalize the beholder, or the position of the concealing factor is forced or unnatural, it is more

apt to be suggestive than if there were no concealment at all.

It is of interest to mention in this connection that in the Vatican alone, of all the endless European galleries that the present writer has visited, one of the popes provided fig leaves for all the nude figures. In most cases this absurd and unnatural adornment only serves to call conspicuous attention to itself, and interrupts the beautiful flow of line and curve that the nude would normally present. Fig leaves may have historical interest, literary symbolism, biblical importance, horticultural beauty, or what you will, but for the purposes of art, they are much better left upon a fig tree.

The question of just what is nude anyway varies greatly among different peoples. In some lands the conventions are so different from ours that I imagine their musical comedy shows, if any, might be made up of some of our everyday costumes, thus reversing ours which so often give replicas of their state of daily undress. The very idea of dress to which we are now so habituated, was a growth, and the evidence seems to point to the inference that it came about not so much as a result of climate or of modesty, as for the urge to be decorative. Indeed the word garment itself is probably contracted from garnishment. There are places where methods of paint or tattoo serve the purposes of clothing. Modesty is largely a matter of habit. Among the nomads of the desert, the Arabian man always wears a cloth across his face which is never removed. Originally these cloths were put on to protect the face from the glare of the desert and the driving sand, but so ingrained did the habit grow that such a man regards it the height of immodesty to show his face even to his own family.

When Greek art introduces drapery, it is used chiefly for ornamentation rather than for covering. Drapery may give mass and dignity to the whole by contrasting small folds with the broader forms of the naked body. When Greek art was at its height, most of the nudes, with

the exception of Venus, the Goddess of Love, were men. Striving figures of athletes or warriors were the most popular. Where nudity existed, it never obtruded itself purely or rather impurely for its own sake, but as an incident of expressing something essential in the artist's thought.

It was only in the 3rd and 2nd centuries B.C., that the abuse of the nude began. Then the naked Venuses were multiplied by a thousand copies. It was this Greek art that became the key to Roman art. When noble Roman ladies exhibited themselves and took part in licentious banquets, the pampered Caesars seized upon the nude Greek statues and removed them to Rome for the decoration of their corrupt courts. It was these which served as "inspiration" to the Roman sculptors who made copies and modifications. Their characteristic obscenities are shut up today in a secret Italian museum where attendance is denied to ladies and young people, although men are evidently so unshockable or tasteless that they are permitted entrance.

The decent nude is all right for fictitious or legendary characters, but we are always disturbed to find this form of artistic expression for real historic characters. In Rome and Greece, those lands of wondrous sculpture, one is forever coming upon nude Caesars and others with whom one had come to feel acquainted. But this very intimacy which is based on knowledge of some mental or spiritual attainment, resents physical intimacy, just as it would if, in the present state of convention, one were unexpectedly meeting one's living friends quite unclothed. We somehow do not like our man-made gods to look like gods, even while we do not mind having our gods look like men.

The nude, aside from its intrinsic beauty, which is, of course, always and ever its own excuse for being, may often introduce into a room a cultural allusion that carries special delight. Nudes expressing music and poetry, the muses, the legends of classic times, the myths and fairy tales of many ages, have paraded or danced through the centuries. Sculptors and painters alike have found in them their finest inspirations, such as the interesting bronze statuette of Alfred Gilbert, called Tragedy and Comedy, or the vigorous "Universal Peace" recently done by the Russian, Jules Leon Butensky, where the blacksmith is hammering swords into ploughshares, and the lion and the lamb lie down together.

Countless are the infant babes shown with pictures of the Madonna. Raphael alone has many Holy Families showing the nude Infant, among which La Belle Jardiniere, in the Louvre, and the Madonna del Prato in the Imperial Gallery of Vienna are popular. A particularly touching modern family group in terra cotta was done by the French artist, Canto da Maya. The Madonna delle Arpie of Andrea del Sarto, the Mystic Marriage of St. Catherine of Correggio are other well known examples. There is the famous Sleeping Venus of Titan in the Pitti Palace, and the Crouching Venus in the Gabinetto della Maschere. The Three Graces have served many artists such as Rubens, Regnault, and others who have found in this subject an opportunity for nude studies. Puvis de Chavannes has done some lovely things in this form, such as his Hope. The little cupids seen in the excavated houses of Pompeii are precious things, especially appropriate by reason of their activities, for dining room pictures, or for children's rooms. The angel depicting innocent love, by Canova, also comes in this group, as does the one in Raphael's "Jurisprudence." In modern vein is the little bronze Cupid and Gazelle by Carl Paul Jennewein.

Many sculptors have found Diana a rewarding subject. Saint Gaudens, MacMonnies, Janet Scudder, Warner and others have portrayed her, generally dressed in the rays of the moon whom she represents. Any abstract portrayal such as that of maidenhood, has been gloriously done in many interpretations. The Golden Hour, by Rudolph Evans, is a delightful conception. The Hygeia of Sherry Fry, and Edith Woodman Burrough's On the Threshold are other expressions of the same subject. Again, the upreaching of a Mercury gives height and grace to a room,

especially that old standby. Mercury Taking Flight, by Giovanni da

Bologna, or more modernly, The Vine, by Harriet Frishmuth.

It may be stated that reproductions of good works of art are decidedly preferable to originals about which one knows nothing, and that have not yet survived the test of time. In the sometimes perplexing matter of selecting nudes this is often a good guide. If the work has been done by a recognized master, it is at least sure to be artistically good even if you do not want it for the Sunday School classroom. Nudes today serve many utilitarian purposes. We find them supporting lamps and ornamenting other lighting fixtures, book ends, candlesticks, flower holders, bowls, screens and the like.

What can be more majestic, more inspiring, more upliftingly beautiful than the nudes of Michaelangelo in the Sistine Chapel? The magnificent legends of the Bible depicted in all their grandeur are not to be excelled either in historic and religious interpretation or as works of art. To miss them is to lose some of life's most enriching experiences, yet obviously the originals cannot be bought. Every picture and gift shop can provide reproductions of these masterpieces. Before me just above my desk, as I write this, hangs one of these—The Creation of Adam, showing God Himself flying through the universe surrounded by angel spirits. His outstretched finger reaches forth to Adam but does not quite touch him, so that one senses the great magnetic power that transfers itself without physical contact, as Adam is drawn toward it. This painting, of course, does not conform to the facts of evolution with which we have become so familiar. As a symbol, it is dynamic in the finest sense.

Nudes of the best types perform a salutary effect upon adolescent children. By their presence, the possibilities of morbid introspection about some of the mysteries of life are to a large extent removed. They learn not only to take for granted the wonders and beauties of the human figure, but to aspire only to similar beauty and perfection. They become willing to wait for an ideal rather than satisfy their curiosity misguidedly at the first temptation. It is necessary in selecting nudes to avoid anything mawkishly sentimental, as this will have a tendency to

create restlessness and discontent.

Only the beautiful of nudity should be shown. Often by constant living with an ideal one comes to grow like it. There is the legend of an oriental prince who was physically deformed. He commissioned a sculptor to create a portrait of him as he would have looked had he been physically normal. The completed statue was placed in a little niche in the prince's garden, and there he went every day to contemplate it. Soon, the legend goes, his subjects began to say to one another, "See, our prince grows straighter." And so it was, for after a while the prince was as handsome as his station befitted.

VII. "A LA SILHOUETTE"

Every once in a while you may come across a silhouette artist, a man who will cut your figure or features in outline out of black paper. But silhouette cutting is today only a curiosity: a century ago it was a common method of reproducing the human likeness. Then came photography which accomplished the same end in a more satisfactory way, so naturally people lost interest in the silhouette for practical purposes. Its decorative quality, however, has continued to interest the popular mind, and the fact that silhouettes fit in so charmingly with furniture of our well loved Colonial types, keeps them much alive.

Since most of us are not so fortunate as to possess silhouettes of our ancestors, there has been made available a wide range of reproductions of celebrated persons in silhouette. These when appropriately framed, make excellent substitutes, and due to their wider and more impersonal appeal, may prove even more successful. Silhouettes in general have the virtue of being extremely inexpensive; not the signed

antiques, but their modern prototypes.

The term, silhouette, is derived from a French Minister of Finance in the days of Louis XV: his name was Etienne de Silhouette. He was a shrewd person, and when he saw that his nation was facing a financial crisis, he inaugurated a regime of extreme economy. This policy was so unpopular that anything cheap or common was referred to as "a la Silhouette," in derision. He not only advocated and enforced retrenchments in many departments of the public service, but urged personal economy on the Court as well. In order to show their contempt, men carried tin swords, ladies wore cheap dresses and fake jewels, and even the artists joined the ridicule and started making portraits in outline only, to economize in their colors. Silhouette became the butt of the wits, anything mean and poor having his name attached to it. The cut paper portraits which were the cheapest from the likeness then known, were referred to as "a la Silhouette." If is believed that the Minister of Finance amused himself by drawing outline portraits of his friends, so although he did not invent the little pictures so oddly named for him. as he is sometimes supposed to have done, he had a share in making them more general. Shades or shadow paintings, as they had been previously known, are old. The decorations on Egyptian, Etruscan and Greek vases and jars are such pictures.

The essential of a silhouette is that the main subject should be shown in a mass of one tint against a ground of another. The artistic importance of the outline filled in solidly with black, white or a color displayed against a solid, strongly contrasting background was recognized by the ancients. Their paintings resemble the later silhouettes in some particulars and doubtless had a share in making them fashionable by giving them the modish touch of classicism so essential in the latter part of the 18th century.

There are several kinds of silhouettes: those cut out of light colored paper with black placed back of the opening; those cut out of black paper and pasted on white cards; those painted on light paper or cards with India ink or color, as well as those painted on glass. The actual originator of the silhouette portrait is not known. In medieval times, cut paper and parchment in ornamental devices were frequently used for different purposes. Ecclesiastical and heraldic examples are known, and these pieces doubtless led to the production of likenesses by the same method, namely cutting out with a fine sharp knife in the way that a stencil plate is cut. It is but a short step from the picture of a saint or a saintly emblem to the portrait of a loved one.

In the case of a miniature, even the casual observer can sense the excellence or otherwise of its color, daintiness and other characteristics. But the points of a good silhouette are subtle. Though the lover of silhouettes can tell the difference between the work of an accomplished profilist and a mere amateur's attempt, these niceties may be lost to the uncritical person. This is perhaps a virtue as well as a shortcoming. In any case it is wise to study fine specimens, the originals if possible, or if not, black and white ones give a fair idea as they lose practically nothing by reproduction.

Many people believe that the best silhouettes are those cut out of black paper and mounted on plain white paper, without any brushwork details. The addition of gilding and touches of color has been regarded by them as a confession of weakness on the part of the artist, and they assume that these additions prove that he was incapable of doing without them. A little thought will show that this is not apt to be the case. Most of the especially interesting and artistically valuable specimens of cut paper work owe a great deal to brushwork, either in black, gold or colors, and many of the best silhouettes are entirely brushwork, having no cut paper at all. Brushwork demands a much higher degree of artistic skill than pure scissors work, and as long as it is not carried too far and overdone, it adds considerably to the beauty and value of a

collector's example. It is generally found that the worker able to do artistic brushwork, is likewise able to produce profiles that are masterly of themselves if one can visualize them with the added touches removed. While at first glance the cut-out silhouette and the brushwork type appear much alike, the former is quite apt to be superior. To the painter. a certain something in the drawing of the outline is possible which the most dexterous of scissor men cannot always achieve. The cut profile is the easiest and cheapest kind, requiring merely a steady hand and the knack of "catching a likeness."

To be sure, there is also plain cut work showing exceptional artistry. Sometimes the fineness of their open work suggests the intricacy of beautiful lace. But though we may admire and wonder at the technical skill and certainty of hand which has contributed to these, they do not necessarily constitute the most desirable specimens. It is in the poise of the head and the beauty of line shown in the drawing of the profile. together with the expression of character and a subtle air of distinction and mastery which distinguish the work of an accomplished silhouettist

Generally the brushwork silhouette was done on paper or card. The people who flocked by the hundreds to the studios had their "shades" done in this medium. But however skillful the work, the effect is bound to lack the delightful mellowness of paintings on ivory or plaster. These, artistically speaking, are the most desirable of all silhouettes. They are occasionally found, either done entirely in black, or with only the flesh portrayed in black while color is used for the draperies.

Few profilists relied merely on their eye and hand for the accuracy of their likenesses. It was customary to take a life-sized tracing of a shadow of the profile and reduce it by mechanical means. The simplest way was to fasten a sheet of white paper on a wall and outline the shadow of the profile as thrown by the light of a single candle. This method was primitively inconvenient, and various ingenious devices were used to increase the accuracy of the drawing and simplify the work. The usual process was to arrange the paper between the artist and the sitter. close to the sitter, so that the shadow showed through sharply. Sometimes a device was employed to hold the sitter's head steady to avoid any involuntary movement that would disturb the artist. The reduction of these large shadows to the small size of the ordinary silhouette was achieved by means of an instrument much like our modern pantograph: two movable points are connected with a central fixed pivot by means of rods. With one, the outline to be copied is followed, and the other, to which a pencil is attached, produces an exact copy in a smaller size based on the adjustment of the rods. These contrivances made it possible for a person of little taste or skill to produce passable likenesses, though, of course, destitute of any trace of inspiration; the majority of the "shades" were executed in this way. Silhouettists of much higher rank, while entirely capable of doing without them, did not altogether scorn the aid of such devices. By their use they saved not only their own time but that of the belles and beaux who wanted themselves easily and cheaply immortalized without any tedious sittings.

The name Silhouette was not in ordinary use in England for black profile portraits before the early 19th century, and was hardly universally employed until quite recent years. Profiles, shadow portraits or shades were the terms used. The earliest silhouette portrait that we have heard of is that cut by Mrs. Pyburg of William and Mary in 1699. Dated examples before the middle of the 18th century are particularly interesting. They should always be acquired even if not of much artistic merit, as they give such an accurate idea of the costume and head dress of the period. The end of the 18th and beginning of the 19th centuries is the time when silhouette making was at its height, both artistically and numerically. Some time after the beginning of Queen Victoria's reign, it fell off, like most other arts and crafts, and examples worth collecting are few and far between after 1850. In New York, the art of silhouette making flourished especially about 1840 when the city was just beginning its rapid growth. All the belles and beaux of the period

had their profiles recorded for posterity.

It was August Edouart, probably the greatest of all silhouette artists, who first used the word silhouette to distinguish his superior method of free hand scissor cutting, from the machine-produced and coarsely executed work which had brought all black shades into disrepute in the early part of the 19th century. But portrait cutting was not Edouart's first "trade." When the Frenchman arrived in England, in 1813, looking for a means of livelihood, he became interested in the art of making landscapes, figures and the like, out of human hair. Such hair work at that time was greatly in vogue. Edouart was a master at this work. A marine view, with a man-o'-war was described by critics as follows: "This performance in human hair imitates the finest true engraving; the curious may perceive with the help of a magnifying glass the cordage and men on board, and the sky and waves are all executed with the same material. This work has taken at least 12 months in its execution: it was done with several shades of hair properly chosen according to their thickness to represent the lines, cordage and sky. The waves of

the sea are worked by the tip of the hair split in two.'

Edouart took up silhouette cutting as the result of a trivial incident. He was visiting a family and was shown some "shades" which had been cut by a patent machine. He criticized them as unlike and inartistic, and was challenged to do better. Edouart protested that his criticism was not a reason that he could do better, but his friends upbraided him so that in a fit of passion he took a pair of scissors that one of the girls used for her needlework and looked around for a piece of paper. He tore off the corners of a letter that lay on the table, took the girl's father by the arm and led him to a chair at one end of the room and went to work. In a short time the paper likeness was cut out and exhibited to the family. They at once expressed approval and covered the Frenchman with praises. They got him to take their mother's likeness which was done with the same facility and exactness. The silhouette artist then embarked on a successful career with scissors and paper, and when he came to America in 1839 he took New York by storm. Is it any wonder that when Edouart began the cutting of silhouettes in 1825, his touch was delicate, and that, as one observer remarked, "he could see and portray all the finer lines in the human figure with the fidelity of an expert. The artist who was only satisfied with gradations that required split hair, could perform wonders in fine line work, however simple his medium." Edouart took his work seriously. In order to retain a steady hand he rose early, dieted carefully, and abstained from all liquor.

Ordinary everyday profile-portraits are unsigned, and in few cases is it possible to attribute them to any particular artist. Important silhouettists, and many undistinguished ones, however, attached to the back of the work, labels of an advertising character giving their names and addresses and sometimes their prices. These most interesting labels should never be separated from the silhouette to which they are attached, and if it should be necessary to repaper the back of the frame when replacing a broken glass or for any other reason, such labels should be replaced. They are not only of interest as throwing a light on the history of the silhouette, but add to its pecuniary value by placing its genuineness beyond doubt.

The silhouette is an interesting decoration because in its indefiniteness it never becomes tiresome, and constantly tempts the imagination. The silhouettes of real people that we know are of further interest for their personal or sentimental association. Aside from family silhouettes, there are endless profiles of the great and famous. Washingtons, Lincolns, Walter Scotts and many others may be chosen. Silhouettes are particularly pleasing in the Colonial room, as there was the vogue for them at that time.

Since they are generally of small size, it is most pleasing to see

them hung in groups. It is quite essential otherwise to have one balancing another. One silhouette alone is apt to look like an accidental blot of ink on the wall. Silhouettes are difficult to hang because the decided contrast of black and white makes such a strong accent that it creates spottiness in the room. A room that requires strengthening, such as one without sufficient color variety, is often rescued from monotony by the introduction of a pair of silhouettes. They do not mingle well with oil paintings or water colors, as their emphatic contrast attracts attention away from the richer, quieter pictures in the room. They may be successfully hung, however, with mirrors, especially of the Colonial type, and they add cheer and vigor to small, narrow panels, such as at either side of a doorway or mantel piece. Children often find them a novelty, and in guest rooms they are also pleasing because their indefiniteness makes for a certain restraint and neutrality that conflicts with no age, sex or temperament. In hanging a pair of silhouettes, it will always look better to have the subjects facing one another rather than back to back, or both looking the same way. They should also be of the same size.

Quaint and delightful as silhouettes are, half their charm is lost if they lack their original mounts. Some misguided people have deliberately taken them out of their old frames, though in quite good condition and put them into new ones, more showy perhaps, but infinitely less suitable than those which they superseded. Even if the gilding has worn off, or the papier mache is a little rubbed and dull, no desire for uniform freshness should ever lead to the reframing of silhouettes where the original mount has survived. Some things should not be rejuvenated!

The silhouette form may be used in many decorative ways aside from pictures on the wall. We find them in borders along the wallpaper frieze and other edgings, in medallions and lampshades or painted furniture. In all these cases, if not overdone, they are interesting decorative accents. While the older silhouettes are largely limited to portraits, modern cutouts go farther afield. Sometimes we may see a famous musician conducting an orchestra. Again, there are the fairytale subjects, such as Haensel and Gretel visiting the Witch in her gingerbread house, or Cinderella with her Prince Charming and her Jealous sisters. Little Chinese subjects are to be had, and romantic ladies in picturesque costumes serving tea to their lovers, or listening to serenades. There are other fanciful subjects like little cupids or dancing nymphs. These are obviously not the Colonial types and do not require the formal frame of the regular silhouette of our ancestors. However, they have their charm, and have evolved quite naturally out of the realm of shades and shadows to tempt our vision beyond the commonplace.

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Dr. Hereward Carrington was born in St. Herlier's, Jersey, Channel Islands, on October 17, 1880. His father, Robert Charles Carrington was connected with the British admiralty all his life. His mother (Jane Pewtress) was Polish; his father's ancestry Irish; both British. Educated in England, Dr. Carrington came to the U.S. in 1899 and remained ever since. He became a naturalized citizen. He has lived mostly in New York City; now in Hollywood, Calif. His first job was with Brentano's book store. For a time he was editor of Street and Smith's 10-cent novels. Later he became a free-lance writer and lecturer. He has written (big and little) over 100 books and more than 1,500 articles and reports. He has been an amateur magician all his life. Hobbies: tennis, science, bridge. In addition to writing motion pictures and playlets, Dr. Carrington has been on the radio for many months. He has traveled extensively through Europe. His list of books for Haldeman-Julius follows:

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