

The Kitchen
in
Art and in Science
by
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We live in an artistic age, even the common things of life possess a grace and beauty that in a certain sense idealize them. Beauty of an object lies in the details.

Who has brought out these details?

The artist has done this. He who has an eye which scrutinizes each individual part, and portrays what he sees on the canvas, bringing out the grace, charm, and beauty to make a perfect whole.

Only one kind of home life is ever presented in art and that is the life of the child. The kitchen is rarely if ever portrayed in art. The best works in home life which artists have given us are those by the Flemish and Dutch painters. The northern climates make indoor life a more important matter to the inhabitants of these countries than those of other nations; therefore their homes are places of warmth and comfort and are dear to the hearts of the people of those countries and naturally these artists, portraying those things which they love best, turn to their homes for inspiration.

A school of painting arose in the 17th century in Holland and it was this

school which produced so many scenes of home life. In the long list of names which became famous for these works are:

Adrian von Ostade of whom it is said that "he would bestow all the graces of art on an old woman threading her needle." Gerard Dow, who spent more than three days finishing a broom which stood in the corner of a room he was painting; Jan van der Meer noted for his marvellous combinations of rich color; Nicholas Mass who takes the lead in the warm lighting of house interior; and Peter de Hooch the "painter of sunlight."

The kitchen is the favorite field for these artists. It is bright^{en}ed with reflections from polished brass and copper vessels, enriched with colors of heaped fruits and vegetables and enlivened by the picturesque figures of housewives and servants busying themselves with culinary labor.

In the national gallery at London there is an amusing picture of home life by Mass. The kitchen maid has fallen asleep the floor is strewn with cooking utensils — while on a cupboard in the rear a cat

steals a duckling which has been prepared for the oven. Another maid stands laughing at the situation and thro an open door one looks into the dining room where the family are at table.

Berard Dore has also a well known "Kitchen" in the Louvre showing a maid standing at a window pouring milk from a pitcher into a basin on the table. Another picture entitled "The Spinner's Dinner," by this same artist, is that of a living room in a peasant's home. The table is laid for the solitary mistress, the spinner, who sits with clasped hands giving thanks for the meal. The light from the open window falls upon her bent figure, shining upon her snowy cap and kerchief and touching the worn face. Beyond is her spinning wheel, beneath which her dog lies sleeping. Very simple and frugal are all the surroundings but homely in the best sense of the word.

One Spanish artist Murillo painted a picture called "The Angel's Kitchen". The scene, represented, is a chapter out of the legendary history of a certain St. Diego who was a lay brother in a Capuchin convent at Alcalá during the middle of the 13th century.

St. Diego, it is related, was cooking one day for the brotherhood, when he was caught in an ecstasy, while angels took possession of the kitchen and went on with the cooking. One who has seen it says, "All this the artist interprets with characteristic religious sentiment. The picture is a long panel in the center of which stand two tall angel visitors who seem to converse. Their graceful poise and out-spread wings suggest their eager readiness to be of service. On the left is the saint kneeling, raised a little above the level of the floor, — a commonplace figure to contrast with the radiant beauty of his guests! At the right is the kitchen proper where the angels carry on the work with sweet serenity. The picture is a very charming allegory whose meaning is perfectly obvious. However humdrum our lives may be, we may all have the ministry of sweet kindly thoughts to brighten our kitchen tasks and make the place beautiful with their radiant presence."

Ges. Eliot in "Adam Bede" has given us a picture of an old English country kitchen from which radiates all the life of the farm

It is half past three o'clock by Mrs. Poyser's handsome eight day clock. This time piece was the pride of Mrs. Poyser's heart. Its oak case glistened and gleamed in the sun rays which came in thro' the open window. Her oak table shone like silver and these bright reflecting surfaces were a temptation to the kitchen maids who, when the mistress's back was turned, would admire themselves before these polished surfaces. A long dinner table was along one side of the room, above which were shelves laden with the glistening round pewter plates. The mantel, spotlessly clean, supported the brass candle sticks and the grate shone like jasper.

The sunlight fell on the pewter dishes, and from these reflecting surfaces, bright jets of light were thrown on oak and brass. Mrs. Poyser's kitchen was her delight - it was really a charming room and might well be an example to every farmer's wife.

Some one has truly said "As the songs of a nation show what that nation is, so in a lesser or differing degree do the kitchens."

The rise of the kitchen from the rude fireplace in the open air of the savage to the

modern kitchen of a well ordered home is an epoch in our civilization.

The Romans were a progressive people. They built their kitchens - vast apartments in which no expense was spared - just back of their dwellings. Their kitchens were supplied with every variety of cooking utensil known to us. The walls were lined with large cupboards, their doors rolling on pivots, and they ^(the kitchens) were amply equipped with stew pans, boilers, saucepans, caldrons and hooks to raise meat out of the pot. They had chafing dishes too, and many were made of silver or bronze, elegant in shape and appearance.

Kitchens, in tropical countries, particularly in our Spanish-American lands are built like fortresses, often with stone walls three feet deep. The ever present veranda surrounds them on every side, affording them not only grateful shade, but additional room when required. The resemblance to a fortress is enhanced by iron bars at the window, and the massive double doors to shut out the sultry heat. With tiled floor, white washed walls, and the gaily colored pottery which serves for domestic purposes. even a kitchen is

quaint, picturesque and attractive.

The French kitchen is just large enough to allow of limited movement. Often it is unlighted save from another room, and it has absolutely no space for storage of any sort. The chief feature is the great chimney, with the tiled table or framework, in which from four to six various shaped openings for the charcoal fire are found.

The chief feature of the Spanish kitchen, of those of the middle classes and in all cottages of the peasantry, there is found a solid brick structure built against the wall and with a flat top. Toward the hollowed center of this, from the interior sides extend little apertures, perhaps eighteen inches deep with openings a foot or square. A round hole from four to six inches in diameter is cut in the top of each of these pigeon hole like compartments. They are called hornillos. There are all the stores the people of Spain ever knew. Charcoal is lighted in the hornillos fanned to a white heat by wicks of rushes and all food is cooked in cumulous earthen ware bras or pots.

The kitchens of the Canaries are also an

either in the courtyard of the house or on the roof. There are no ovens outside of the public ovens - the private families using charcoal furnaces.

The walls of the German kitchens are often hung with copper vessels of all sorts and sizes and they glitter like ancient armour. There are racks full of that clean, beautiful blue and white ware - delft. There are ranges and charcoal fires and rows of long tables lining the room. The floor is tiled and shines so bright, one can almost see their likeness in it.

In the descriptions cited of the various foreign kitchens, each one has a picturesque beauty of its own. The many utensils glittering like so many battle shields are artistically hung upon the walls. Kitchen art is employed in the general arrangement of the room as well as kitchen science.

With her patient fingers science has touched the kitchen and has transformed it from the miserable non sanitary, non-ventilated and poorly equipped room to a modern kitchen laboratory, sanitary in every sense and containing all the paraphernalia necessary to perfect culinary processes. Of all work-shops and laboratories for important undertakings, the average American kitchen is the least adapted and poorly equipped for the work it has to do.

The preparation of food is a vital question and the relation which nutriment bears to a person's physical, mental, moral (and may we not say spiritual?) well being is no longer to be ignored. But woman is so much to blame for her work-shop not being more sanitary, more convenient and more modern in its arrangement and its furnishings. A woman's relation to the kitchen and its products determines the family life. "To dignify the function of a humble kitchen, until it becomes in the estimation of every woman a laboratory wherein God permits her to aid in fashioning human souls."

is worthy of strenuous endeavor."

The room in which food is prepared has more influence upon the welfare of the family, than any other room in the house "for do not the issues of life and death proceed from this source?" The kitchen is the center of our household, and from it radiates influences which many of our housekeepers have not realized. Our well being physically, intellectually and mentally is influenced by the products of the kitchen. Here may the sciences of be applied, chemistry - proper foods, their selection, combination and preparation; botany - the relation of garden to the kitchen; physiology - study of the body - its functions and uses of its parts and how influenced by food; hygiene - study of sanitary law.

The science of ventilation in regard to the kitchen needs to be understood, for the room where food is prepared should be very carefully ventilated. Air either pure or impure is beaten or cooked into all our food, and it makes a great difference in the

wholesomeness as well as its flavor, if the food is prepared in a room where impure air is being constantly replaced with fresh pure air. Take for example, the beating of an egg. We all know by experience, if the egg is beaten near an open window it becomes much lighter, that is, it contains larger and lighter air cells; consequently, the food in which it will be contained will be lighter and more digestible.

The kitchen should have all the sunlight possible and should open directly to the outside air. The penetrating and purifying rays of the sun are death to disease germs, microbes and infectious germs love dark kitchens. Dust, sweepings and rubbish being brot thro the kitchen, without doubt, do bring microbes into this laboratory. Everything intended for family consumption is also brot to the kitchen and if there is no care taken, our food will become contaminated by these microbes.

Scientists tell us that sunlight and air are our best protection against the

microbe. Bacteriology has developed as a science and has explained many mysteries. They also tell us that typhoid fever and diphtheria are traceable to impure water, and bad drainage wherein the disease germs find a rich culture field. A badly managed sick is, consequently, a menace to every bit of food which comes in contact with it. Therefore our kitchen must be well lighted, airy and well ventilated. Strict cleanliness and hygienic measures our motto; and the obedience to the laws of hygiene and sanitation, not only will the whole family be effected but indirectly the whole nation.

Every housekeeper should have a knowledge of practical hygiene and sanitary science as applied to the kitchen and the home. The kitchen decides the the health of the household and health settles almost everything. It is Charles Kingsley who has truly said, "The secret of thrift is knowledge; knowledge of domestic economy saves income; knowledge of sanitary law saves health and life."

Of what use is chemistry to the house-keeper? We can hardly conceive of the debt we owe to the chemist; for in the study of chemistry lies the solution of many public questions as public hygiene, the economical feeding of the masses, and the care of their health in crowded cities.

No one can become master of the art of cooking who does not know something of the chemical elements of food and the purposes they serve when taken into the system. No one can know the chemical laws which our food obeys in its digestion and nutrition without taking a deeper interest in the preparation of food. No woman can be said to be thoroughly proficient as a professor of housewifery until she understands the chemical elements of food and the purposes they serve to the system.

The use of Chemistry in cooking is to teach how to supplement one kind of food by another which contains certain essential elements lacking in the first. For instance, venison contains 15% of nitrogen to 52% of carbon whereas

its ratio should be 1 to 4 or 50/5. To make it a perfect and healthy food, we must supplement it with something rich in carbon as wheat bread and oat meal.

It has been ascertained that carbon, hydrogen, oxygen, nitrogen and small quantities of sulphur, iron, lime and a few other elements must be contained in the diet of all parts to be nourished.

Oxygen and hydrogen are contained in nearly all substances in the form of water, hence, nature has made the obtaining of these elements an easy matter.

The human body has been likened to a machine and like any other machine is constantly wearing out. Every movement and every breath is breaking down cells and tissues and this waste must be repaired to keep the body in normal working condition.

Food taken into the system has two offices to perform, the repairing of waste, and the supplying of fuel to keep the bodily heat up to 98°F .

Special attention has been given to brain and nerve food, and it is becoming understood that the men and women sent forth into the world, which have been fed with food suitable for every part, nerve and brain, bone and muscle, flesh and blood will be better equipped both as to mind and body and soul to fight life's battles.

When a knowledge of the needs of the body is supplemented by intelligent cookery, a wholesome, strengthening and nourishing meal is the result. Cooking loses its old sense of common drudgery when considered as a scientific process, and the cook who understands food value and the chemistry of cookery, has perfect right to consider herself a scientist. And she is queen in her chemical laboratory, — the kitchen.

Every housekeeper should have in her library a good work on the chemistry of food and chemistry of cookery and should make their contents a special study.

These are beautiful and wise words that Ruskin has written there, "To be a good cook means the knowledge of all fruits, herbs, balms and spices and of all that is healing and sweet in field and grove, and savory in meats; means carefulness, inventiveness, watchfulness, willingness and readiness of appliance. It means the economy of your great-grandmother, and the science of modern chemistry. It means much tasting and no wasting. It means English thoroughness, French art and Arabian hospitality. It means, in fine, that you are to be perfectly and always ladies (loaf-givers) and are to see that every one has something nice to eat."

The modern housekeeper is gradually becoming her own chemist. She is beginning to study foods, the laws of human growth and the science of nutrition. The housewife of today holds the possibilities of future literature and science in her power, for upon the right nourishing of the human body does all the intellectual work depend.

Cardinal Gibbons quoted once, "An ancient Greek once said 'Athena rules the world; I rule Athens; my wife rules me and my household, therefore she rules the world.'"

The greatest household changes in the last hundred years in America have been in heating, cooking and lighting. There is progress since the days when it was necessary to borrow from the nearest neighbor a shovelful of coals, if the fire was ^{not} carefully covered at night, to the present when the striking of a match will ignite paper and kindling; progress since the only method of heating and baking was the open fire place to the day of the electric jet.

What is there so near the ideal method of heating and cooking such as the use of the electric current? The secret of its success lies in its simplicity. The electric stove is very simple—it is merely an insulated wire merged in a plate which by mere resistance to the flow of the electric current, gives off heat.

There could scarcely be a more convenient form of lighting and heating. The temperature can be delightfully regulated by the electrical stove as there is no consumption of oxygen and the consequent giving off of CO_2 gas. The heat is turned on at the moment it is wanted and applied just where it is needed and yet be under entire control.

What has science done for the kitchen? It has placed it on a higher plane; and broader education in the future and un-tiring effort will ultimately place it on the same plane as the parlor or drawing room. It will gradually become merely an alcove adjoining the dining room.

The kitchen is the universal institution of domestic science; it is a scientific laboratory of no mean scope where one may gain knowledge of more things than ever yet dreamed of in a collegiate course. It is true that the need of this land is the scientific kitchen which will develop the simple art of cooking.

And all are looking to the young woman
of the 20th. century to bring the truly
scientific and hygienic kitchen to
maturity and perfection.

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