PRESENTATION OF DESIGN

PENCIL POINTS

March 1961
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GUSTAV JENSEN, A SELECTION OF WHOSE DESIGNS IS SHOWN ON THE FOLLOWING PAGES, IS GENERALLY CONCEDED TO BE AMONG THE LEADERS OF HIS CHOSEN FIELD. HE IS A "DESIGNER'S DESIGNER"—ONE WHO HOLDS THE ADMIRATION AND RESPECT OF HIS TALENTED COMPETITORS AS WELL AS THAT OF HIS CLIENTS. THE DECORATIVE "SPOT" BELOW WAS MADE TO BE USED ON THE COVER OF A PORTFOLIO FOR SPECIMENS SENT OUT BY THE ALDUS PRINTERS.
THE ADRIENNE LINE, WHOSE PACKAGING WAS DESIGNED BY GUSTAV JENSEN LAST YEAR FOR THE UNITED DRUG COMPANY (THE LIGGETT AND REXALL STORES) HAS JUST BEEN AWARDED THE IRWIN D. WOLF TROPHY GIVEN BY THE AMERICAN MANAGEMENT ASSOCIATION ANNUALLY FOR THE MOST DISTINCTLY MERITORIOUS PACKAGING JOB DONE IN AMERICA DURING THE YEAR. COLOR BY GRAPHOTO, N. Y.
The most challenging figure among designers in America today is Gustav Jensen. He is a challenger because his methods and his results permit us to see how foolish it is to go on being hoodwinked by the shady dreams of material successes that are concocted by those who substitute persistence and methodical trial for the quick advances of the truly artistic and creative will.

Science and industry and outward life are developing themselves daily by leaps and bounds. The innovators and originators in those fields innocently fall a too easy prey before a growing host of over-enthusiastic personalities who talk softly of engineered products, merchandising, streamlining, and prefabrication. It all sounds very alluring. Sales departments quiver with delight at the thought; and swear not infrequently with anger at the results.

The whole policy has no definite objectives; it suffers from a complication of contradictory and uninspired opportunism.

Gustav Jensen comes from another background. He offers no revolutionary theories nor promises the wealth of the Indies overnight. He was schooled and trained in an environment whose cultural quality and restricted size put an emphasis on honesty and excellence. Sham and falsity are soon unmasked by the ever-watchful and jealous eyes of the artists of the Danish capital. There a man really has to learn the fundamentals of his craft to survive.

Insofar as the varied range of his designs and drawings may have one central theme, Gustav Jensen is constantly seeking the way to beauty and understanding and to a realization of the problems of man. This theme is the axiom of any artist's life but it is necessary to lay special stress on it before saying anything about the specific matter and content of Jensen's work, because we are dealing primarily with a philosophical matter.

His first interest centers neither in an abstracted or detailed description of form or color, but in an effort to catch their human essences and significances. There is no short cut to beauty in his philosophy. Only in the diverse richness of life can you come upon it. When thus discovered, it is a treasure for memory.

From the sparkling life in Copenhagen at the early years of this century, he brings a rich heritage of Danish culture to his work. He sees modern American problems from a back-
THE MODEL OF A SINK FIXTURE DESIGNED BY JENSEN FOR THE INTERNATIONAL NICKEL COMPANY'S MONEL METAL SINKS (1931) IS A THING OF BEAUTY. ITS FORM IS FRESH, FUNCTIONAL, AND FREE FROM THE BONDAGE OF PRECEDENT. AT THE LEFT, A SWITCHPLATE, SIMPLY TREATED WITH A DIVIDING STRIPE, IS DISTINCTIVE

ground of Scandinavian matter-of-factness that inspires more confidence than a thin and flip discussion of the abstractions of geometry or mechanics. Honesty of purpose, sincerity of workmanship and elegance of execution are qualities that mean something when embodied in the six-foot-two of this vigorous Dane.

Glory in toil has always been a quality of Scandinavians. Love of nature, the sun and flowers enliven their hearts; affection for and hatred of the sea, which both batters their shores with ruin and death and carries them off to adventure in China or Patagonia, fills their spirits; satisfaction in the good things of life and human friendship warms their lives. The bleak cold and darkness of the northern winter sends their imaginations scurrying to southern climes; they long for Italy and, being romantics, they people it with Cæsar and his legions as they day-dream in the sunlight or dance in the fiesta. They build into their northern cities and lives as much of this gay spirit of the sunny south as they can.

A burning and revivifying breath of the classic leavens all Jensen's artistic effort. It
A metal doorknob designed in 1934 is surprisingly comfortable to the hand. The doors of Jensen's studio are equipped with these strong, simple, and decorative pieces of fine hardware. Below is a telephone instrument Jensen did in 1929 for the Bell Telephone Laboratories. He rejected scores of sketches which did not quite satisfy his sense of beauty and fitness before reaching this triumph of refined and appropriate form for the model instrument shown here.
flowers with the fantasy and mistiness of Hamlet. In him as in all Scandinavians, be prepared not only for intensity and mystery of color and form, but for brilliancy of contrast—the cold of ice and the heat of fire.

Day by day, as the loveliness of the world and the spirit of man is being more and more besmirched by the destructive hands of uncontrolled mechanization, industrialization and war, the world sees with what evocative skill the artists of Scandinavia have been opening up vistas through the turmoil, the suggestion of exquisite, unarrested moments. Gustav Jensen, too, fills his drawings with some of that unravished quietness. With him the eye and mind travel far and live adventurously. He reveals his love of the past, emphasizes his animosities, shows his love of nature, as he produces his beautiful, original, and compassionate designs. It is in their beauty and their compassion that their special value lies.

Few designers in America today have had the breadth and scope of background he has had. It is one in which philosophy and ideals and culture mingle as they are reflected in life and living. Its most emphatic point is a great disdain for an ignorant toleration of hurry and noise and its greatest animosity the snobbish pursuit of beauty.

His method and his spirit are seen immediately as he sits down to design a series of boxes to hold feminine toilet articles. Phase after phase of study finally yields a product that is no retrospect of history, or a rehash of any particular style. It is simply the effort to catch a living enchantment. In that small white and gold powder box, seized and held fast, is a drop of the fine and fugitive stuff that is the essence of a beautiful woman. It glows with the perfume, lights, rustle of silks, flowers, and music of an opera box, as well as the airy grace of a ballet dancer. It has captured a nostalgic moment from life.

The elegance of the labels on the tins containing meats and delicacies wafts the mind through the material pleasures of a gay com-
Jars for fine cosmetic creams (1936), a container for a miniature rug (1934), and a box of unusual shape designed for the Star Case Company (1931) are all possessed of that indefinable quality that marks all of Jensen's designs as expressions of his own peculiar genius. They always seem, at the same time, to catch the essence of the products they aim to express.
DESIGNS INVOLVING LETTERING OR TYPOGRAPHY, OF WHICH FIELDS JENSEN IS AN ACKNOWLEDGED MASTER, GIVE HIM FULL SCOPE FOR THE PLAY OF FANCY—ALWAYS CONTROLLED, HOWEVER, BY A SENSITIVE REFINEMENT. THE TITLE PAGE FOR STUDEBAKER AND THE SKETCH FOR THE COVER OF THE FAMOUS QUARTERLY PUBLISHED FOR BOOK COLLECTORS ARE GOOD EXAMPLES OF HIS SKILL.
AN UNUSUAL FOLDER FOR A PAPER MANUFACTURER AND A HAND-LETTERED ADVERTISEMENT, ONE OF A SERIES USED BY HARDMAN, PECK & COMPANY IN NEWSPAPERS, ARE LITTLE MASTERPIECES OF DESIGN THAT SHOW JENSEN’S PERFECT SENSE OF BALANCE AND DELICATE SPACE RELATIONSHIPS. THE “RAGS” FOLDER WAS PRINTED IN TWO COLORS, BLACK FOR THE TYPE AND A SOFT GREEN FOR THE HAND DRAWN PORTIONS. THE PIANO AD IS REPRODUCED AT THE EXACT SIZE AT WHICH IT WAS PUBLISHED.
THE REPEAL OF PROHIBITION GAVE DESIGNERS AN OPPORTUNITY TO CREATE DISTINCTIVE FORMS FOR LIQUOR BOTTLES THAT MIGHT COMPETE WITH THE FINE CREATIONS EVOLVED THROUGH THE CENTURIES BY FOREIGN DISTILLERS AND BREWERS. JENSEN HAS PRODUCED SEVERAL SUCH DESIGNS THAT DO NOT SUFFER BY COMPARISON WITH THE BEST THE PAST HAS PRODUCED. IF THE GIN COMES UP TO THE STANDARD SET BY THESE CONTAINERS, THERE WILL BE NO CAUSE FOR COMPLAINT BY NORMAL DRINKERS.
THEMENIC'S TO CONTAIN
PERFUME, CHARLES OF THE
RITZ'S FOR LOTION, AND CLIC'S
FOR READY-MIXED COCKTAILS—
SHOW HOW A MAN LIKE JENSEN
CAN DEVISE FRESH AND BEAUTIFUL FORMS THAT ADD DEFINITELY TO THE SALABILITY OF THE PRODUCTS THEY ENCLOSET AND TO THE ENJOYMENT OF THE DISCERNING POSSESSOR.
A COVER DESIGN FOR THE FRANKLIN PRINTING COMPANY'S HOUSE ORGAN, DONE IN 1929, IS A SKILFUL BLENDING OF THE TRADITIONAL FEELING CONNOTED BY THE NAME OF FRANKLIN WITH THE REFINED SPIRIT OF CONTEMPORARY GOOD TASTE IN PRINTING.
THIS SKETCH FOR A COVER DESIGN MADE BY JENSEN IN 1931 FOR CHENEY BROTHERS' PUBLICATION, "DECORATIVE SILK NEWS," IS A BURST OF SONG EXPRESSIVE OF BOTH THE BEAUTY OF FINE TEXTILES AND THE SPIRIT OF THE DESIGNER.

A COVER JENSEN MADE FOR THE LITERARY DIGEST'S BUILDING SUPPLEMENT AFFORDED A PLEASANTLY SURPRISING CONTRAST TO THE COMMONPLACE SORT OF THING USUAL IN 1929.
IN THE DESIGN FOR A BINDING FOR A PICTORIAL REVIEW PORTFOLIO, JENSEN USED STRONGER COLOR TO GET ATTENTION. THE LABEL AND GUMMED PAPER TAPE HE DID FOR GULISTAN GIVE DISTINCTION TO THE PACKAGES EMANATING FROM THAT ESTABLISHMENT AND SUGGEST THE RICHNESS OF ITS AMERICAN ORIENTALS.
A UNIQUE CIGARETTE BOX IN LEATHER DESIGNED IN 1934 FOR THE STAR CASE COMPANY AND A CHASTE DESIGN FOR TABLE SILVER ARE BOTH REFLECTIONS OF JENSEN'S PERSONAL ARTISTRY. HE HAS PUT INTO THEM SOMETHING THAT WOULD MAKE THEM STAND OUT FROM AMONG THE VAST ASSORTMENT OF SIMILAR OBJECTS TO BE FOUND IN THE SHOPS OF THE WORLD'S GREATEST CITIES
PACKAGES FOR CLIC COCKTAILS, BAUER & BLACK'S ABSORBENT COTTON, AND GILBERT'S TOOTH PASTE AND MOUTH WASH ARE ALL DISTINGUISHED BITS OF DESIGN. THE COTTON PICKER IS ESPECIALLY INGENIOUS AND APPROPRIATE TO ITS PURPOSE. IT HAS A TRANSPARENT COVER, NOT SHOWN IN THE PICTURE, WHICH PERMITS THE TUFT OF CLEAN SOFT COTTON TO GIVE A PART OF THE PACKAGE'S CHARM.
pany gathered around the festival board in some neo-classic dining room. It is filled with the pleasure of simple human existence and emotion.

The finest expression of his artistic philosophy for an architect lies in his lettering and printing. Because he knows the fundamental anatomy, he can render letters with infinite variety; he distorts them when it suits his purpose. A page of lettering becomes a creative experience far removed from the drudgery of ordinary architectural lettering and inscriptions that are constructed with a geometrically cold-blooded determination. The freedom with which Gustav Jensen attacks and executes a problem of printing or lettering gives the final key to his artistic philosophy.

The attempt of ancient designers to rationalize into a science what they achieved by art or the struggle of modern artists to rationalize into an art what they have achieved by science leaves him cold. No redrawing of any design can equal the original, because the same results can be got only by re-assembling the original sources, not by using the results. All sources of art exist only in life. Technical problems, materials, colors, and forms exist only because their use is motivated by living impulses, of which the designer is the interpreter. Observation precedes creation; the true designer minutely analyzes the cause and meaning of everything that occurs before setting hand to paper. Such analyses are the skeletons of art. They are visible only to those whose intimacy with living processes is great enough to reveal them. Present-day design, with few exceptions, is poor because our lives are poor. It will be better only when we have men who dare to expose themselves completely and unreservedly to life forces.
ABOVE IS JENSEN'S PATENTED DESIGN FOR A RADIO, A FORM THAT IS CERTAINLY A REFRESHING DEPARTURE FROM THE CONVENTIONAL SETS TO BE FOUND ON THE MARKET UP TO NOW. THE "WORKS" ARE INSIDE AND THE TUNING DIAL EXTENDS AROUND THE BASE WHICH HAS A ROTATING RING. THE SOUND, OF COURSE, COMES OUT THROUGH THE OPENINGS AT THE TOP.

BELOW IS A TROPHY CUP, DONE IN 1933, WHICH WAS ONE OF THE EXHIBITS THAT WON JENSEN THE NEW YORK ARCHITECTURAL LEAGUE GOLD MEDAL BACK IN 1934.
ONE OF THE SERIES OF MONEL METAL KITCHEN SINKS JENSEN DESIGNED IN 1931 FOR THE INTERNATIONAL NICKEL COMPANY, GREATLY TO THE COMPANY'S ADVANTAGE. BELOW IS A MODEL OF JENSEN'S DESIGN FOR AN IMPROVED EDIPHONE, IN WHICH THE INSTRUMENT IS HOUSED IN AN ATTRACTIVE AND EFFICIENT LOOKING BOX.
Jensen devised a most interesting form for these boxes in leather executed by the Star Case Company to be included in an exhibition at the Metropolitan Museum in New York. The edge flows continuously, encountering no corners around the entire box.
PRESENTATION DRAWINGS

NOT THE TECHNIQUE BUT THE MANNER

BY OTTO TEEGEN

Back in school days we were all under the impression that the presentation was the thing, that even a feeble plan and bad design could be redeemed by a clever presentation. Because of this common error, facility in the *rendu*, instead of being an asset, often served as a detriment to a student's entire architectural design training. It is principally for this tendency that today our more progressive schools talk down rather than boost rendering and presentation as such. Perhaps they are right. On the other hand there is no question but that good presentation is necessary in order to make clear to a client what you, as architect, have planned, and to help him make up his mind. Some call this *selling*. If describing what your ideas are and what you advise in a manner that can be easily comprehended by him is selling, call it selling. But we can't afford to forget that plans, sections, and elevations in line and unrendered mean practically nothing to most laymen. Through experience we learn to read plans and sections right side up or upside down, but nine out of ten clients can't distinguish between a line section and an elevation. They may say they understand everything perfectly as you trace your red pencil over a blueprint in explanation of how it works, but to your dismay you find it is only after the job is completed that they realize what you were talking about. After you have heard "But I didn't know it was going to work out that way," even though you took particular pains in the early stages to describe by way of your sketches that it was going to work out just that way, it becomes paramount that your presentation drawings be unmistakably clear and correct.

There are, briefly, two kinds of presentation drawings; the pretty picture type which is made to entice or to fool the client, and which very often fools the designer as well, and the type that is made with the idea of describing what is going on in as simple and honest a manner as possible. The first category includes faked perspectives, worm's-eye views, London fog drawings, or those having a superabundance of misleading entourage which puts interest on everything but the problem at hand. Dramatic renderings make for good theatre, but if they mislead a client into thinking he is going to get something which you yourself know he isn't going to get, they will eventually cause you no end of grief. When a client is given the impression that his new 15' x 20' office is going to have more or less the scale of the Grand Central Concourse, the architect is fooling himself only, for the client is sure to be disappointed in the final result and won't trust "pictures" a second time. When an exterior perspective of a large office building of brick and steel sash is presented to look like a monolithic column, the brick to look like stone and the windows rendered the same color as the wall to give that "desired stability and monumentality," some one is going to be surprised, for in the finished structure the brick will look like brick and the windows will usually be black as compared to the color of the surface material. If this is an architect's idea of "selling" he ought to take a course in salesmanship. A so-called high pressure commercial salesman may use a wealth of adjectives and pretty talk when he sells you a car but he would never show you a Rolls Royce in the salesroom and deliver a Ford to your home. Perhaps this kind of presentation needs no further elaboration since we are all familiar with it. However, as freehand artists we have a tendency to display our facility, in fact, don't mind fooling ourselves from time to time, so we all need to be reminded of faults that may cost future jobs and prestige.

What is the purpose of a presentation drawing? Is it not to convey to a client, potential or actual, in the clearest manner possible, the ideas that have been developed for him and which you want him to grasp as clearly as you yourself understand them? In general, one can say a good presentation drawing will be as
clear to the owner as it is to the designer. In other words, one cannot present confused ideas simply. Therefore, it is necessary first to boil down all of the superfluous ideas not pertaining directly or absolutely to the question at hand. Then put down the essentials on the drawing. Get away from the idea that the drawing must look busy, and that a lot of unnecessary details must be added. If certain details are important items on the presentation plan, show them, but if they do not come in the discussion leave them out, for their presence will merely detract from the story to be told.

Actually, a good presentation drawing should be as much an aid to the designer in allowing him to see the ultimate development of his ideas as it is to the client who sees them for the first time. The presentation is the finished sketch, simplified and carried to a point where it could be taken by any one in the office and immediately translated into working drawings. If it is a colored rendering, even the final colors of the materials indicated should be susceptible of being deduced accurately from it. It is in perfect scale, factual, and to the point.

What technique to use in presenting drawings involves too long a discussion for this article. But this much can be said—the technique should adapt itself to the subject. Unfortunately, too many of us have but one technique—in fact, we feel proud if we have mastered one, and it is a big order to be proficient in many. Yet it is apparent, for example, that a presentation for a small house should

The actual building and a rendering of the Herald Square Building, New York, made by Simon Breines to illustrate a hypothetical presentation drawing that one could assume might have been offered by the architect for such a building. It is no exaggeration to say that such a false presentation is common practice—which is a great pity.
be different than the presentation of a small exhibit. The one involves a picture of relatively large wall areas, windows, shrubbery, etc., all of which can best be rendered in a free manner, in pencil, ink, or water color. It should have a softness and a natural aspect. The exhibit, on the other hand, will no doubt have many small elements which have to be not only placed correctly, but drawn accurately, in scale and usually with a precision of color. A formalized rendering and one in color, rather than a rough pencil rendering, would seem not only in order but necessary to bring out the desired objectives. Consideration number one is, therefore, to choose your technique in relation to the subject.

And just as one must choose between certain mediums, such as charcoal, pencil, ink, water color, tempera, etc., so must one choose between methods such as straight elevations, perspectives (with particular regard to the station point), isometrics, or combinations of these with plan or sections on a good sheet composition. An isometric, well rendered, certainly shows more than any perspective, but unless it is very clearly drawn it can be most confusing. It has become increasingly common in showing exhibit work since it lends itself to an accurate as well as quick method of presentation. On small dimensions it approximates true perspective but on large dimensions it is too apt to be distorted. Sometimes a straight elevation can serve one's purpose better than a perspective with the necessary involved details.

And let us not forget the matter of the size of drawings. A small presentation, well done, is more effective than a large one, particularly if your clients are sitting around a table and will look at the drawings at close hand. One that can be easily handled is better than a large clumsy affair, and will save you an infinite amount of time in preparation. Consideration number two is, therefore, to choose

New School for Social Research, New York, as built from Joseph Urban's design and as rendered beforehand by Irvin L. Scott. The presentation rendering, almost photographic in its values, is very honest and tells the story about the building and doesn't disturb itself with the traffic on the street and other entourage usually thought necessary to make a drawing more interesting
your method of presentation with regard to your subject, and consideration number three is to spend a little time determining the best scale and size of sheet for presentation. These are important factors not to be slighted—unless, of course, you want to waste your time and that of others.

After one has exhausted the question of the kind of presentation—and this article admittedly makes only a beginning of the vast subject—another important item must be considered; namely, an analysis of the client with whom you are dealing. Just as different subjects require different mediums and presentations, so must different clients be approached in particular ways. To know yourself is at no time more important than know your client. There is obviously no point in spending hours and days on a type of presentation, no matter how much of a master you are of that particular technique, if it is not going to be the kind that will appeal to your client. There are clients, principally those mentioned at the beginning of this article, who have been fooled so often by pretty pictures that to present another of the same type, no matter how factual and honest yours may be, merely tends to antagonize them. You will find clients who believe any sort of presentation drawing is a waste of time, and who have sufficient trust in architects to let them go ahead with ideas without pictorial evidence. They think of an architect as they do of a doctor whom they approach for a physical examination or analysis without expecting an elaborate pictorial graph of their condition. If the doctor says his examination shows an operation for appendicitis to be necessary, the patient takes his word for it and goes to the hospital. Yes, there are clients who have trust in their architects and give the word to proceed on oral advice. May you have that type in numbers! For some clients, a small, even hasty, pencil sketch on a piece of scratch paper may illustrate a point much better than carefully rendered drawings. As a matter of fact, most laymen are intrigued to watch a sketch develop. Provided one has the facility to put ideas over this way, it is by far the fastest and most expedient method. Of course, for those ideas requiring color these hasty methods are hardly possible. Nor are they possible when presenting a diagrammatic arrangement such as one would have in an exhibit where space is confined and dimensions of the articles to be exhibited are quite definite.

And so we list the following items in this brief summation, none of which are new to you, but pertinent inasmuch as we are all apt to overlook them. Firstly, don't allow yourself to fool yourself and the client by pretty pictures. Secondly, make your drawings factual, simple, and clear. Thirdly, analyze your subject and present it in the most appropriate manner, adopting a technique that is best suited to the subject. Finally, try to size up your client and give him what he will understand most readily. It is a wise course to give these obvious statements a little consideration before you start out, for no matter how clever you may be you will have failed if you do not convince your client. And unfortunately, without clients, there is no point in continuing in the profession.
Architecture, while admittedly a profession, is yet a business, no matter what artistic label is pasted to it. The architect's problem, insofar as familiarizing the public with the nature of his services is concerned, is the same as that of the industrial manufacturer of radios or motor cars. It is primarily one of public relations.

Public relations is a broad and impressive term behind which is hidden a great deal of expensive and mysterious hocus-pocus. It ranges, in the lair of the specialist, from straight news releases to created situations—situations which seem to spring from an amazingly childish point of view, analogous in principle to the hiring of a thug to attack the unsullied maiden so that the hero can rush in, save the day, and marry the girl of his dreams.

Adult public relations are much more reasonable and understandable than the builders of stage sets would have us believe. Actually it consists of a complete cycle of well-judged and nicely-timed moves. These might vary from a "right" letterhead, a good label, and a proper sign on one's door to the reprinting of a paper delivered before the American Institute of Architects.

The achievement of good public relations for an architect—or for any business or professional organization or individual, for that matter—calls for type, paper, and printing press, and last but not least, a printer-designer.

Now, unfortunately, many a printer-designer who is well developed aesthetically has difficulty in his dealing with architects who may be similarly developed. There is a way of accounting for this. The education of both the printer and architect includes the study of letters and letter forms. The letters with which the architect has largely dealt have a master pattern in that set of capitals evolved by the epigraphers of Rome in the first century. The architect's attention, so far as letters are concerned, is in good part given to those which are cut in stone for the purpose of identifying and ornamenting buildings. He deals with the capital fonts only and these he uses in a limited number of words. His letters are usually first drawn on tracing paper and later, after being greatly enlarged, cut in stone.

The printer's attitude toward letters is acquired in quite another way: it comes from the handling of types which are movable and used in hundreds of words—line after line of text and headings—mostly in the lower-case or minuscule letters.

The movable types which the printer of today uses were first invented out of a desire to achieve the easy duplication of books copied by scribes. These great manuscript books were the original pattern for printing. The first important period of the manuscript books dates from Ireland in the sixth, seventh, and eighth centuries. During this time there were produced in the Irish monasteries calligraphic and illuminated manuscripts which never have been surpassed for originality of design and skill of execution. The most celebrated work of this period in Ireland is "The Book of Kells" which has been called, by many writers, "the most beautiful book in the world." This art of manuscript writing flourished in all countries until the 15th century when it was rendered outmoded by the invention of movable types. Since then, by the way, every country in Europe has brought forth a contender for the honor of having achieved this invention. Johann Gutenberg of Mainz, Germany, is most often credited with its invention about the year 1445. The Chinese, however, had movable types at least 400 years earlier.

Although I would not deny that there are basic principles having to do with architecture which also apply to printing, it is necessary to point out that printing, too, has its lore and tradition. The pages of printing history sparkle with great names: Aldus, Baskerville, Bodoni, Caslon, Estienne, Garamond, Granjon, Janson, Jenson, Tory—men who were printers, type designers, publishers, editors, and, in many cases, all four. To these men we owe the origin of the classical types which, in their way, are as deathless as the music of Bach or Beethoven.
Letter paper, invoice, estimate form, label, etc., all designed around a simple central scheme and printed in brick red, gray, and black. This is one of the rare examples where other office forms have been as carefully designed as the letter paper and suggests the advantage of being consistent throughout.
Corvinus, and other "modern" faces so frequently seen in periodicals are the products of living type designers.

So, for each printing problem, there is available an enormous wealth of resources springing from the centuries which have gone to make up printing history. How, then, does one who is about to have some printing done—an architect, for instance—determine the correct approach?

Sir Joshua Reynolds said, "It must of necessity be that even works of genius, like every other effect, as they must have their cause, must also have their rules . . . Insubstantial, however, as these rules may seem, and difficult as it may be to convey them in writing, they are still seen and felt in the mind of the artist, and he works from them with as much certainty as if they were embodied on paper."

Sir Joshua was speaking of painting but typography and printing also have their rules—rules which have to do with good taste, suitability, legibility, correct margins, careful

Fine examples of printing for architects in America and Denmark. The Danish designer used a vertical composition, the American a horizontal, and each succeeds in securing a distinguished result. The amount of white space is important
flatter myself that you will participate of whatever affords me Pleasure, it not im­pute it to an Anticipation. Deposition."

While in Naples he purchased an "antique statue, some medals, a few pictures," which were shipped from Leghorn to Philadelphia. He cautions his uncle, "You will oblige me by ordering the Porter, who carry those Things from the Ship to your house, to be very careful lest any Damage should happen to them."

One of these letters brings forth from Captain Morris a letter cautioning young Powell against the advisability of bringing house furnishings into the country. The Non-Importation Act had been signed, and feeling was running strongly against importations from abroad; and Captain Morris goes on to say that furniture "can be had in will and possibly more cheaply here than in London."

Before Samuel Powell returned to America, he was admitted to the Established Church, and when, in 1768, he took up his residence in Philadelphia, he was one of an ever-widening group who had become World's People. Whether or not his uncle's advice relating to the Non-Importation Agreement was having its effect, it is quite certain that the Third Street house was chiefly furnished by American craftsmanship. Equally certain is the fact that the major portion of his plate he bought in London and brought with him. It would seem that this was the practice of Governor Penn, Mr. Willing, and others of a similar station in Philadelphia. Their homes were closely modelled on the metropolitan (London) taste, the woodwork being fashioned by the craftsmen here, though the lights and more elegant appointments were imported. Life among the World's People followed the English traditions as closely as was possible in a new country.

Samuel Powell married Mr. Willing's daughter, became the last mayor of the city under the British rule and the first mayor under the congressional administration. His house in Third Street was a social center for World's People. Naturally, General Washington found this household the one in which he might be most at home during his residence in Philadelphia.

From one of the most distinguished pieces of bookmaking published in recent years—"Early American Rooms," edited by Russell Hawes Kettell and printed by the Southworth-Anthoensen Press of Portland, Maine—we reproduce a double page spread which illustrates a real feeling for appropriate and well-balanced design.
Seeding, which was next door to 447 Oxford Street, the headquarters of Morris & Co. at that time. When Gimson had been in London a few years he joined the Society for the Protection of Ancient Buildings, which had been founded by Morris and Philip Webb several years before. I find his name in the list for 1890. Gimson became a keen and understanding member of the Committee, regularly attending the weekly meetings and visiting buildings in the Society's interest. Morris, as artist, made the profoundest impression on Gimson, and the Society was itself a remarkable teaching body. Dealing as it did with the common facts of traditional building in scores and hundreds of examples, it became under the technical guidance of Philip Webb, the architect, a real school of practical building — architecture with all the whims which we usually call 'design' left...

THE STROUD VALLEY FROM SAPPERTON

This page from "Ernest Gimson, His Life and Work," a book printed in 1924 by The Shakespeare Head Press for Ernest Benn, London, & Basil Blackwell, Oxford, is an example of the perfect joining of illustrative technique and type. The drawing was, of course, by F. L. Griggs, whose fine book illustrations are famous.
Direct descendants of type and ornament from William Caslon and Son, Letter-Founders of London in the Eighteenth Century, are used to reflect the architecture of the old South in these pages from "The Monograph Series".
Theodore Kautzky has here handled the pencil almost as a brush in depicting the view down Fifth Avenue from about Fifty-ninth Street.
DEANS IN A DITHER

BY HUBERT G. RIPLEY

There seems to be a lot of loose talk flying around lately about Architectural Education and Architectural Schools.

By "loose talk" we mean talk that is a bit difficult to pin down to a few definite, simple declarative sentences without qualifying phraseology that leave one up in the air, so to speak. We've tried to follow recent writers in PENCIL POINTS, reading faithfully their articles and wise sayings, their theories and the theories of the Master designers they write about, and it's all very confusing and perplexing. We like some of the illustrations immensely and some are upsetting.

Sunday was a quiet cloudy day when we started Ellis Lawrence's article in the January number. We read halfway through and were getting along peacefully enough 'til the writer said some day it would be interesting to have our pen (or Louis LaBeaume's) tell the world what garden Deans are plucked from and why.

At this point we left our easy-chair by the fire, put on our Burberry and blue muffler (a loose-weave neck-piece made by the "Willow Weavers" in Nantucket) and tramped down to the Square for a few cans of Ballamine's Ale—a most excellent keg-lined brew—at the local Wine and Spirits Merchant's. (They open Sundays from four 'til six to supply those thirsty, improvident souls who've neglected to lay in a sufficiency on Saturday.)

Returning heavily laden, we staggered through the remainder of the article and even read Ralph Walker's Editorial on Architectural Education. It may have been the ale, but when we'd finished, somehow things seemed a bit foggy. However, here was a double challenge, and without becoming too involved, we'd like to say a few words on how the thing looks to us. It's so long ago since we went to an Architectural School at all. It was called the "Massachusetts Institute of Technology" or "Tech" for short, and the part of it we knew (and the only part) was called "Course IV." There were some 30 or 40 students, all in one big room and we never left that room except to attend "Chapel," as the bar and lunch room in the Brunswick Hotel across the street was called. All the rest of "Tech" was a closed book to us, save for 3 or 4 "Regulars" who sometimes went out to take a mysterious study called "Applied Mechanics."

We'd never heard of a "Dean of Architecture." There was Letang, Professor of Architecture, and Professor Chandler, the head of the Department, C. Howard Walker and Eleazer Homer, Instructors. Ross Turner, who taught water color, and D. A. Gregg, who taught pen-and-ink, used to come in once a week, and we attended life class at the Cowles' Art School occasionally and that was all.

When it came to the teaching of Architecture, these men taught us and we just learned it. It began with the Tuscan Order and when we "learned" the Composite Order, why, we knew what Architecture was. Létang taught us how to put it together, and that was that. Homer taught us "Graphical Statics," which, as I recall, had to do with the wind blowing against a roof truss, and "Stereotomy," for in those days stone-cutting was a noble craft. Some of our best students could design a stone dome that wouldn't fall down (theoretically). Ernest Machado's father had a class in Spanish, and we got as far as chapter III in "Gil Blas." Howdy Walker had a swell course in "History of Ornament" and used to tell us all about Botticelli and Piero della Francesca, and the "Autobiography of Benvenuto Cellini," and John Addington Symonds' "History of the Renaissance in Italy." Professor Chandler told us about Office Practice and Superintendence, bucked up the students and the staff generally, and shielded the rugged individualism of Course IV against the sneers and snaffles of Faculty Meetings.

We all loved our teachers and they loved P F. N C I 1

PENCIL POINTS
us, and there was a fine spirit of loyalty among the members of Course IV.

The Architectural Club, recently organized, held regular pipe and beer fests on Saturday nights, and the Architectural Society in the Department held an annual Banquet at the Old Revere House, with Claret and Rum Punch.

As far as I know, the word "curriculum" was never mentioned. We were a happy family and thought McKim, Mead, and White were wonderful.

Our favorite draftsmen were, H. T. Schladermann, Henry P. Kirby, Robert Blum, Denman Ross, Herbert Railton, Harvey Ellis, Francis Bacon, Howdy Walker, J. A. Schweinfurth, Wilson Eyre, and William R. Emerson. I still think they're among the finest.

There were only about three Institutions where Architecture was "learned" and/or taught in the early 90's, most draftsmen acquiring their architectural training in offices and, somehow, in spite of everything being all wrong from an academic point of view (or perhaps because of its being so), a "good" draftsman with ten or twelve years training in a "good" office usually turned out to be pretty well equipped for the practice of architecture. As a matter of fact he usually had to get out on his own (or else be taken into the firm) in order to make room for the bright young fellers that were coming along.

The Golden Age of the Architectural School was the time when Despradelle was at the head of "Tech." He left no one anywhere—in the United States at least—who was able to fill his place, except Paul Crét. These two men, and Létag who preceded them, didn't call themselves "Deans," nor were their Schools known as "Schools of Architecture" or "Schools of Design." They didn't have time to worry about where the Profession Was Going, they just taught architecture to their students as they thought it ought to be taught.

For the last twenty-five years, I've played Contract Bridge about once a week with Ed Page. Now Ed plays what he calls the "Gas House System." I don't know what the system is, neither does Ed, and sometimes his partner gets into an awful jam. However, that doesn't matter, it's really better not to know too much about Ed's play. We have darn good times playing together and many illuminating experiences. It all amounts to the same thing in the end. Both Gas House Contract and Gas House Architecture are very Modern and very much alike.

Ellis Lawrence is a darn fine feller and in reply to his soul-searching perplexities and queries about what garden Deans are plucked from, if he asks me, without knowing what Louis LaBeaume might answer I'd say: "Deans are plucked from Q Gardens." Why they pluck 'em, I don't know. Perhaps if they let 'em grow, they'd turn into a new Order of Architecture and inspire a XXth Century Callimachus (Catatexitechnus, Vitruv. loc. cit).
THE PAINTER NIGGERS FOR THE ARCHITECT

1—CONCERNING THE USE OF RHYTHMIC LINE

BY T. LOFTIN JOHNSON

As a Mural Painter I have often niggered for the Architects and by so doing have gotten to know the "mistress of all the Arts" quite well, with her silk hat and many idiosyncrasies, whims, and present Functional, Machine for Living, romanticisms. Now, when it comes to Greek refinements, or modern blandishments, or period styles or standardized details of Modern International, I would never breathe a word. But when it comes to Lines, Values, and Colors—then I think that I know what I'm talking about. As we both, Architect and Mural Painter, use these old-fashioned tools to whittle out a job, I feel that we are on common ground.

The purpose of these three short articles will be to suggest practical ways in which the Architect may strengthen the beauty and attention-getting qualities of his renderings. He can do this by the scientific analysis here suggested and by the injection of some of the artful power of Cubistic distillations. This is an attempt in words of one syllable to explain a scientific method that will produce that spellbinding, competition winning, magic of a beautiful and dramatic presentation.

Some Architects are more romantic than Painters about their work, and shun any form

A drawing by Matisse. Note the long, angular lines near the frame with action and curving lines in the center of the picture. The character of the lines is free or informal in harmony with the nature of the subject. Contrast this charming quality with the monumental quality of the cubistic drawing by Picasso (on page 172) which must have been made with ruler and instruments.
The plate on the facing page is from Choisy, "L'Art de Batir chez les Romains." The painters, Michelangelo and Uccello, like this architect, realized the dramatic effect of form and depth given to any object by drawing it in a "twisted" or foreshortened position. This drawing shows how form gains in grandeur when looked up at of scientific analysis. Thus they work entirely from "feeling." Further, they say it is wonderful—I mean "the feeling." The moderns proved beyond a doubt that there is a science of beauty. From this point of view, of method, I believe that the Architect could improve his work one hundred per cent by "beating the enemy in detail" as Napoleon used to advise, particularly when taking on a large and plentiful enemy. If we consider the architectural presentation as a pictorial unit and as a plastic design which will or can impress a client upside down as well as right side up, and so amuse and tickle his eye that he immediately doubles his appropriations for the project without ever inquiring whether the chimneys have breasts or flues, then we know what "significant form" is. Every Architect and Painter should be somewhat of a Cubist, particularly in the magic of his job-getting sketch or competition rendering. From this plastic point of view it may help considerably to "Beat the enemy in detail."

Perhaps it was an architect that taught me the very wonderful habit of working from thumb-nail to full scale. The smaller the larger, so to speak. At minute scale one can study the architecture of the picture. By that is meant: first, the LINE or plastic rhythm; second, the VALUES or massing of lights and darks; and third, the COLOR (Color that all Architects so love, yet fear). By keeping these studies small and by separate consideration, one finds it much easier to beat them and to win a victory in the finals. Let them all crash down at once on you at full scale and you are lost.

After making numerous tiny soft pencil sketches—done with inspiration and feeling, steam, sweat, emotion, and many coffees or stronger—one can usually get up the next morning and try coolly to analyze the blood and thunder of the night before, weed out the least inspired sketches, and really try to go to work with the think-piece. Emotion and in-

At the left is a drawing by Picasso of the head of a young woman. Notice the fewness of the lines even in the hair indication. Forms are modeled with extreme simplicity; a very little shading, with lines that run parallel in rhythm or harmony, indicates the roundness of the form. Contrast this drawing with the one above, also by Picasso. The latter is an abstraction, contrasting line and mass with complete simplicity. Simplification and exaggeration are the things that give individual style
spiration first, then the dawn, development, and analysis, is my motto.

It has been truly said that simplification and exaggeration are style, or produce style. By the use of tracing paper over inspiration sketches one can eliminate all but the essential and the significant from the living idea. First search for the essential lines, changing them slightly, perhaps, to make them more parallel or rhythmical to one another. At the same time, keep the action, or curving, moving, and diagonal lines mostly toward the center of the picture and the straighter and more horizontal and vertical lines near to the frame with which they tend to harmonize. In other words, try to think of the picture in an abstract sense—rhythm, contrast, balance, and so on—thus forgetting the subject—Jones' house or shady tree or strolling dog. The point of view is now architectural, cubistic rather than descriptive or romantic.

Each detail, if considered separately and in its proper order, permits one to concentrate all his mighty brain on one small point at a time. Turning the picture upside down sometimes helps to disassociate the plastic pattern from the representational or subject, which is by no means a new or Modern trick.

Continuing our discussion about line, one often observes in Architects' renderings an inconsistency between the character of the mechanically ruled lines of the house and that of the extremely free and wiggly lines of the trees, distant mountains, and other objects which surround the building proper. I feel that, from a "plastic" point of view, if the house is drawn with a ruler then the trees and mountains, to be in the same style, should also be drawn with a straight-edge. Or, obversely, they should all...
Two drawings by Matisse, made as studies for his painting "White Plumes." Observe the naturalism yet simplicity of the first one, at the left, and then the added conventionalization and simplification of the second, especially in the treatment of the plumes, feathers, accentuated big rhythm of the hair, elongation of face, placement of head in space, bare simplicity of jacket in contrast to richness of head. Nature only suggested the rhythms which Matisse recognized, selected, simplified, and exaggerated.

Above, at the left, a line drawing by Villard de Honnecourt, a thirteenth century architect, shows his use of symbolism and style as here found in the emphasized vertical line, the suggestion of roundness and perspective, and in the general simplification. Note especially the strength and weight of line and the massive monumental effect it gives. At the right is a formalized drawing by Gaudier-Brzeska, illustrating style in the character of the line itself. The strong and massive line has beauty at close range but is weak at a distance because of lack of mass and value.
be drawn, including the house, free-hand—romantic in manner and natural, a suitable treatment for Ye Olde Countrie Cottage with flowers for the sweet little old lady. Architecture, due to its formal nature and mechanically straight clean lines, should naturally tend in style to straightness and angularity rather than to softness and to curves or the naturalness of free-hand. The main thing, it seems, is to be consistent throughout.

Engravings teach us that the best work contains little cross-hatching of lines. In rendering the form or shadows in a pen or pencil drawing, simple parallel lines that do not cross and that follow the form are far more beautiful and give an effect far cleaner than a multiplicity of lines going in all directions. Try this sometime—without cross-hatching.

Lines in the abstract should either be massed like the values and colors, with a large mass and smaller echoes in distant parts, or else they should be evenly distributed all over the surface like type or the all over effect of a tapestry. If you want to place the rich spot of pattern against a plain beautifully simple ground, then consider most carefully the shape of the unfurnished areas or voids. No two should be alike, and no two the same size. There should be one largest avenue of escape or opening into the distance. In considering the picture as a whole, it is most important that the areas surrounding the subject and the subject's placement on the sheet be carefully considered. Balance and placing seem to be purely matters of feeling and taste.

The style of the building can be materially emphasized by the proper use of lines. For example, if your house is horizontal, the horizontal lines of the architecture itself can be made slightly heavier and their number increased and the number of verticals in the surrounding landscape can be limited only to contrasting accents or changed to diagonals or curves. (See how the verticals of the Gothic illustration are accented.)

Perhaps the most beautiful Architectural drawing that I ever saw was made up entirely of ruled lines of varying width and strength, like an engraving—all straight, precise, and angular—machine made or God made—not wiggly, human, emotional, man-made things, but the essential symbols of a new era.

A still life by Picasso—line drawing at the left, finished painting at the right—shows the formal monumental character to be gained with machine made lines, ruled with a straightedge or made with instruments. This quality looks well in mural paintings. The shapes agree with the geometric forms of the surrounding architecture. As pure decoration there is no finer art than this: the artist has changed nature for the sake of design.
There is an oft repeated saying to the effect that we can make two blades of grass grow where one grew before. It is not so well known, however, that we can create the illusion of two objects where one stood before by the duplicating power of reflection. The beauty of an architectural structure can be enhanced by providing proper means for its reflection from the surface of a pool of water. Aesthetically, such a repetition is accepted as a prime factor in the enlargement of the whole structure. Mirrors in halls and other rooms expand the boundaries and give the feeling of greater depth and loftiness. The value of reflecting pools in landscape composition is comparable.

The problem often presented to the architect is to find the proper location and dimensions for a pool that will give a complete reproduction in the water of the desired outline from the principal points of view of the observer. For the intelligent solution of this problem, we have to review briefly the principles of physics which deal with the reflection of light.

Through the sense of sight we are able to see either luminous objects which emit light, or illuminated objects which scatter or reflect light originally received from some luminous source. The stars, electric lamps, etc., are self-luminous, while the planets, the moon and most of the objects around us are rendered visible by reflected light. From every point of a visible object, light travels in straight lines to the eye. These lines of light are called rays. They radiate in the form of a cone with the apex at the luminous or illuminated point and the base at the pupil of the eye. Of necessity they must be divergent. These scattered rays reveal to us the attributes of the illuminated object, such as its size, shape, color, and location. If this page is read under an electric light, the haphazard reflections from its minutely irregular surface form the image of the page and not the image of the light source. However, the image of the luminous or the illuminated object can be formed by a regular reflection from a smooth surface. It may be a

![Diagram](image-url)
polished piece of metal or stone, a piece of glass silvered or unsilvered, even the surface of calm water. A pool of water was probably the first mirror of prehistoric man.

Let us now consider more specifically how to find the image of a given object. To start with, we will take the case of a single luminous point-object, \( A \), shown in Figure 1. Any structure can be thought of as being made up of a large number of points. If we learn how to find the image of a single point we can extend the process to any number of points, locating finally the image of the entire structure. We may imagine an infinite number of rays being emitted from a luminous point, \( A \), which is placed above the reflecting surface \( MN \). The divergent rays 1 and 2, entering the eye directly, make it possible for us to see the point \( A \). At the same time rays 3 and 4, striking the surface of the pond, are reflected in the directions 3' and 4' according to the two following laws:

1. The angle of incidence, \( i \), is equal to the angle of reflection, \( r \).
2. The plane containing the incident and the reflected rays is perpendicular to the surface of reflection.

When the reflected rays 3' and 4' enter the eye, the image of the point, \( A' \), will be found in the direction in which these rays enter the eye, i.e., at the point \( A' \) which is the intersection of the prolongations of 3' and 4'. It is a peculiar fact of vision that we do not see an object always where it is but we see it only in the direction taken by the luminous rays as they enter the eye. Consequently, the image of a point can be defined formally as the point of intersection of the prolongations of the reflected rays. The image of the point \( A \) will appear to us as being located actually at \( A' \). If the eye is brought closer to the reflecting surface, the reflected rays entering the eye are now 5' and 6' giving the location of the image \( A' \) in exactly the same place as before. By a simple geometrical consideration, the position of the image \( A' \) can be found by dropping a perpendicular from the point \( A \) to the reflecting surface or the extension of it, and laying off a distance \( BA' \) equal to \( AB \). Hence the image of a point has a definite location below the reflecting surface, and is the counterpart of the object-point above. The image is formed whether the reflecting surface is small or large, near or far away on the same level, whether or not the image can be seen by the observer.

The rule for finding the image of a point can be extended to the problem of finding the image of an object such as shown in Figure 2. First, we extend the plane of the water level, \( RS \), up to and beyond the object; second, we select several prominent points such as \( E, F, \) and \( G \), and locate their images, \( E', F', \) and \( G' \) by the method outlined above; finally, the outline of the whole reflected image can be

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Figure 2—The visibility range of an image formed by reflection from a pool
freely drawn from these and other points. In all cases of reflection from plane surfaces, the image appears to be inverted and of the same size and shape as the original object.

After locating the image, the question arises as to the range of possible eye locations to view in full or in part the image formed by the pool. In Figure 2 for example, we will consider the visibility of a part, $EF$, of the whole structure. We connect both reflected points, $E'$ and $F'$ with the extremities of the pool, $R$ and $S$, and prolong these four lines above the water level. Two extreme lines, such as $RK$ and $SL$ are always divergent and limit the space outside of which the image, $F'E'$, cannot be seen. If the eye is located between $RK$ and $RH^2$, the lower part of $F'E'$ will be cut off, whereas for the space limited by $SH'$ and $SL$, the upper part of $F'E'$ will be cut off. If the eye is placed between $HH'$ and $H^2H'$ only the central part of $F'E'$ becomes visible. It is evident that a complete image, $F'E'$, can be seen only when the eye is located in the area $RSH$.

In order to comprehend better this question of the range of complete or partial visibility of a reflection, we may simply think of a hole in the ground equal in size and similar in location to the pool. As we look through the opening at the image, our eye has to be placed in such position that the two extreme lines from the eye to the edges of the opening fully embrace the image. This will be the position and determine the extensions of a reflecting surface so that the complete image could be seen from the selected points of vision. A specific example is shown in Figure 3. After the image of the monument is found for a given water level, $MN$, we draw a line $O'O$ at the average height of the observer's eye. On that line we mark two points which determine the possible range of the observer, $K$ near to the pool and $L$ farther away. By connecting point $K$ with $D'$ and $A'$, the points of intersection of lines $KD'$ and $KA'$ with $MN$ will give the length of the reflecting surface $R'S'$, necessary to view the image of the entire structure from the viewpoint $K$. Similarly for the eye position, $L$, the length of the reflecting surface is given as $R^2S^2$. Consequently, if the reflecting pool extended from $R'$ to $S'$ the complete outline of the monument could be seen from any point between $K$ and $L$.

To determine the width of the pool, the principle of converging lines from the object

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*Figure 3—Design of location and size of a reflecting pool to give required visibility range*
to the eye can be used. When the pool is close
to the object, the width must be the same as
that of the object. When the pool is located
at some distance from the object, the width
of the pool may be narrower.

The image formation by the pool depends
primarily upon the surface reflection of water.
It is true that usually some reflection takes
place also from the sides and the bottom of
the pool. If these other reflections enter into
the picture, they confuse the primary reflec­
tion from the surface. Naturally, these addi­
tional reflections are not desirable. They can
be avoided, or rather prevented from coming
to the surface by:

1. A sufficient depth of water so that the
rays of light are absorbed in passing
through the water.
2. The use of light-absorbing material to
cover the sides and bottom of the pool.
3. The coloring of water so as to increase
its absorbing qualities.

But in artificial pools we do not want muddy
water nor do we want to go to the expense of
building deep pools. Obviously, the best way
to get clear reflection is to color the inside
walls and bottom of the pool dark by using
paint or mat-glazed tile. Pools with black sides
and bottom need only a few inches of water
in order to make them give perfect reflections.

In instances where pools are used to break
the color of the ground with no desire to
form images of the surrounding objects, the
color of the sky will be reflected with greatest
intensity when the water is clear and shallow
and when the sides of the pool are lined with
white or light blue color.

The intensity of light reflected from the sur­
face of water depends upon the angle of inci­
dence. At perpendicular incidence the amount
of light reflected is less than 2 per cent of the
total energy contained in the original beam.
This value increases only slightly up to an
angle of incidence of 45 degrees, but from
then on the increase is more rapid—more than
6 per cent reflected at 60 degrees, about 20
per cent at 75 degrees, and nearly 100 per
cent at 90 degrees when the ray is grazing the
surface.

The intensity of the reflected light may
seem to be very slight especially when the
angle of incidence is small. But when we con­
sider that the outdoor illumination ranges be­
tween 1000 and 10,000 foot candles while the
intensity produced by the ordinary reading
lamp may be as small as 5 or 10 foot candles,
the brightness of the reflected image may be as
clear in a photograph as the original object.
A residence at the Meadowbrook Development near Irvington, New York. Kohl and Simon, Architects. The pencil rendering is a fine example of Theodore Kautzky's skill with the medium.
Groups by Joseph E. Renier, Sculptor, for the composition shown on page 180. Each one represents one of the governments under which Texas has functioned at one time or another. Those on this page symbolize the present United States, the Republic of Texas (1836-45), and the Confederacy (1861-65). The seals represented are, of course, those of the several governments involved.
The governments of Texas as symbolized by Joseph E. Renier, Sculptor, and reproduced on this page are those of France (1685-1763), Spain (1689-1821), and Mexico (1821-1836). The building in which these sculptures are incorporated is one of the permanent structures of the Texas Centennial Exposition, presented by the State to the City of Dallas last September in honor of the past.
A sculptural plaque in relief, designed and executed by Joseph E. Renier, Sculptor, for the State of Texas Building at Dallas. The composition is twenty-five feet in diameter and the relief varies from 4 inches at the edge to 15 inches at the center. The material is plaster, gold leafed in three tones—the star lightest, the rays darker, and the figure groups darkest. The interior of the hall is of Cordova shell stone. The architects were Adams and Adams of San Antonio and the Texas Centennial Architects Associated, Incorporated, of Dallas.
THE AESTHETICS OF EFFICIENCY

BY RALPH WALKER, F. A. I. A.

There has been more written about efficiency, with less understanding of what it means, than perhaps any other phase of modern life. We have made a new idol of an old word. "Efficiency."

And how some of our sophisticates bow down before it!

On the other hand, almost as many of the world's inhabitants kotow to the laziness of inefficiency.

The world seems fairly well divided between adherents to the phrases "do it now" and "mañana."

The latter work with their hands, think with their senses, and produce, if left alone, simple and elaborate patterns which are very old; so old in fact that they work into the patterns of the negroid and the primitive conceptions that pervade modern abstract art.

In sharp contrast to the rebirth of primitivism, the engineer, a humble worker with a few facts, is set up, because of his obvious efficiency, as an ideal agent to accomplish the salvation of the world.

Please believe me as having a real and honest appreciation of the work of the engineer, but to place the world upon a basis of believing that this or that specialist can solve the great complexity of human relations, strikes me as having no sense at all.

And may I place the architect in the same humble position of a worker, specialized and as apt to be uninspired?

The entire question of efficiency is one of cause and effect and the result is too often thought of as inhuman perfection and repetition.

At home we have an excellent cook. At times her dinners are something to rave about; at other times we wonder why we haven't stopped at the village "Diner" where, God knows, the efficiency is more marked than the artistry.

When filled with the savory good will, which perfect food and its attendant graces make possible, we sing her praises, but know enough not to say—"See! Isn't it remarkable, we have such an efficient cook"—for, a week or so later, with the same friendly guests (it may have something to do with the moon), the dinner is merely something which everyone eats but no one thoroughly enjoys.

But she, we, and the guests look forward to another time when everything clicks.

An appreciation of artistry is tolerant, and no one expects tolerance from those who claim efficiency.

The engineer has been placed in a position of claiming something which he knows, deep in his own soul, does not belong to the few facts on which he builds his structures.

The design of every building contains an architectural significance inherent in the realization of its practical and aesthetical limits. Neither the one nor the other is independent.

Recently, I went well out of my way on a trip to Buffalo to see the office building Frank Lloyd Wright did for the Larkin Company.

For city block after city block you drive through the efficiency of our civilization—an engineer's efficiency—dreary chaotic blocks; a mélange of a badly interpreted past; a welter of factories with dirty glass walls. Suddenly, you see a begrimed building, but one strangely expressive of unity and of beauty.

Recently, also, I went for a tour through the streets of Washington, and observed how efficiently stone has been piled upon stone.

How very efficient are the builders of the nation as seen in the nation's capitol, but how lacking in spirit are most of the buildings built since the time of those famous founding fathers.

Very sharp is the contrast between the office building of the Larkin factory and the more recent and much more complacent copies of Roman masterpieces built in the last two decades on the lots of the capital city.

The efficiency of everybody concerned is very marked but where is the beauty?

The modernist says—"Do not look there, but look at the grain elevator, look at the factory, for here has developed the new building aesthetic of the modern world.

"Here is high efficiency; here is a new beauty; here is a new rhythm built up of speed.
and precision; here is found the machine, the master creation of man, in contrast to the haphazard rule of thumb creation of nature. "Here men move in mastery over matter and motion; here design becomes suddenly as separate from the past as the automobile, that ready illustration, separates itself from the horse and the buggy."

The scientist, studying man, continually holds up a warning hand asking for less speed, for more comprehension, for a more thorough rather than a more specialized effort.

The modernist replies that true efficiency carries within itself a cure to all the ills of specialization, of the sharp inequalities developed by the over-efficient.

The engineer, here used as a symbol of the efficient, always uses a factor of safety. He acknowledges that his equation is incomplete, that his facts are not wholly safe guides, and while the factor of safety is a constant factor, nevertheless there is always the possibility of a failure.

If we look closely we find that as many aesthetic qualities have developed from this fear of failure as from accurate knowledge.

Emotionally, the fear of failure has given proportion to the Greek Doric column, to the flying buttress, to many a bridge, which, skinned to engineering actualities, would seem impossible of endurance.

My partner, Stephen F. Voorhees, said several years ago—"The equation of engineering efficiency is incomplete without the factor of beauty."

Nor is that factor of beauty a mere matter of taste, of pure function, or of that thing which we call efficiency or economy, although it can be all or any number of these things, even to the wild extravagance of the most exalted wastefulness of a whole people.

Because, finally, the efficiency of a people can only be counted in what remains as a residue of their efforts.

The Greeks were most efficient, even though they did not invent a microscope, because their thinking still has an influence upon ours. The Romans were efficient, because their architecture still clothes our governmental buildings. The mediaeval French were efficient, because their church architecture remains the symbol of the Christian religious life.

Why is it that the work of the eighteenth century carpenter and mason, who lived closely and intimately to the life of their neighbors, more often than not produced a house or building of such character and distinction that the more removed professionals of today, such as architects are supposed to be, must needs copy their work?

None of these people were efficient in the modern mechanical sense.

A PENCIL POINTS ARCHITECTURAL COMPETITION

Conducted by Russell F. Whitehead, A.I.A., Professional Adviser
Kenneth Reid, Associate Professional Adviser

For full Particulars with the Official Program
SEE PENCIL POINTS FOR APRIL, 1937

PENCIL POINTS will hold its Spring Competition for a building of popular type during the months of April and May, with the Judgment meeting staged early in June.

The Competition will be open to all architects, architectural draftsmen, and designers in all parts of the world. One Thousand Dollars will be awarded to the Winner. There will be other cash prizes amounting, in all, to a total of $2300. Five architects of national repute will serve as the Jury of Award.

The Cambridge Tile Manufacturing Company of Cincinnati, Ohio, has accepted PENCIL POINTS' invitation to sponsor this Competition. "Suntile" is made by these Patrons.

It has been demonstrated time and again that the architectural Competitions, authorized by PENCIL POINTS, present an opportunity and an incentive to the members of the profession to exercise and develop their skill in solving contemporary architectural problems.

You will find the full particulars in PENCIL POINTS for April. Reprints of the Program will be available thereafter for all who desire to secure additional copies of the document. It will leave no doubt in the minds of the competitors concerning their relations with PENCIL POINTS, the Patrons, and the Jury either before, during, or following the Judgment. Be sure that you get your copy.

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On this and the succeeding pages are presented a group of tree studies by Beatrice Field. The first was made at "Dogtown Common," a section of Rockport, Massachusetts, settled by inhabitants of Cape Ann who sought a sheltered spot for their community in the days when pirates infested the coast. The character of the section was, as shown by the drawing, nothing but red cedars and rocks. Though the people lived there for many years, only the foundations of their homes remain today.
Majestic sycamores in Groton, Massachusetts, as sketched in pencil by Beatrice Field. These are reputed to be the largest sycamores in the country, being over a hundred feet in height. These trees are natives and have a bark which peels and leaves a white undersurface.
Beatrice Field has here sketched some white pines on an estate in Belmont, Massachusetts. She says of these trees, "Each one is very individual in character and develops this individuality only after reaching maturity. The white pine is considered the most beautiful of New England native trees."
Sycamores in winter at Groton, Massachusetts, form the subject of this sketch by Beatrice Field, which is a careful study, almost entirely in line, of their characteristic structure.
Believe me or not, when I desert my customary serious (and, I hope, instructive) style of writing for excursions into the realm of fancy, it's because I have red flannel in half my head in place of (or amalgamated with) the usual brains. Now and then this flannel asserts itself, and when it does, there's no knowing what I may do.

Did I ever tell you about it? No? Then perhaps I should. Then you will understand and, I trust, forgive.

You see it was this way. When I was a youngster about fourteen, tall and slimber (an adjective from my native state, denoting slim and limber), I was very fond of hunting. Didn't so much like to kill things—quite the contrary—but loved to wander through the woods lugging grandfather's old muzzle loader, Betsy Ann. Occasionally I'd take a shot at something, which always meant a lane shoulder for a week, for she kicked like fury. More often I would tote the old smooth-bore home when night came and slip her, unfired, back on to the pegs, along with the shot pouche and powder horn.

Now it so happened that grandfer was getting pretty aged about this time—a hundred and fifteen or twenty, I reckon—and his memory wasn't what it had been. He kept Betsy Ann loaded all the while as we were pestered more or less with skunks, hawks, and such. Off and on he'd for­
take there was a charge in her and, wanting to have her ready for any possible contingency, would drop in three or four fingers of powder, a lead ball or a handful of nail heads, and the usual wadding. Then he'd wallop the whole charge home with the ramrod and slip Betsy Ann onto the pegs again. The point of my present narrative comes from the fact that on the day of days the gun thus bore not merely a double charge, but a triple one!

I had been tramping the hills for hours and was already homeward bound. In fact I was fully half-way down Saddleback, meandering along meditating on the tragedies of antiquity, and dragging Betsy by the barrel (she had grown mighty heavy, I recall), when all of a sudden, just as I swung under the old virgin pine on Billings' boundary, right where the path tops that granite ledge, I chanced to glance down and WOW! There, not ten feet below me and looking up with far from a pleasant countenance, was a black devil of a bear which for months had been raising havoc all over Cumberland County!

Was I scared? Honestly, I don't know. But I instinctively up with the gun, laid her across the fence and aimed her down. Before bruin could even start scrambling up the ledge after me, Betsy Ann blazed away full blast with a deafening roar!

Well sir, it's a marvel that I'm alive to tell the tale. A triple charge in an ancient gun! As Horace Harding expressed it the next day when they were hunting for traces of both the gun and the bear (nothing but fragments of either ever were found), 'Betsy was loaded fur too heavy for the distance she had to shoot!'

Scarcely had I pulled the trigger when, without knowing whether I had scored a hit or not, I shot upward on an uncharted and unplanned journey towards the stratosphere. I believe I might have made it had it not been for an intervening limb which, point downward, projected from the old gun. Did I drive that limb in my brain? I did. Why didn't it kill me? That is a mystery of nature. For once a dome of almost solid ivory was an asset. But there I was, suspended twenty or thirty feet above the ledge by a tree branch deeply embedded in my think tank. What a predicament! What to do? What to do?

If I were dealing with fiction, it might be amusing here, to say that gradually I slipped from the limb until I plunged to the ledge below; then I would bring in that old gag that the granite rock, being very hard, broke my fall! But fiction is fiction and fact is fact. Actually my delivery, while scarcely more credible, was quite natural, for the whole frame of the veteran pine, shattered by the force of the explosion, gradually slithered to the ground, depositing me on the path so gently that I felt no pain beyond a second's agony as the branch extracted itself from the cranial cavity.

For a second I sat there puzzled. I believe you can realize that my mind was not functioning at its very best. Picture yourself, dear reader, in the same predicament. What would you have done?

But the terrifying discovery that with the limb removed my brain was oozing drop by drop from the puncture galvanized me into instant action.

Fortunately, chance directed my exertions. Glancing about me in my distress, I discovered that by some strange fate I held, clutched tightly in one hand, grandfer's ramrod, a bit the worse for wear but still capable of service. All my clothes—I blush to tell you—had been blown from me excepting my red flannels, which, though tattered and torn, had to some degree survived the catastrophe. Ah, the solution! Ramrod and flannel!

Tearing from the edges of my brain-pan aperture some of my fast matting hair (even to this day friends delight in pointing to certain deficiencies in my hirsute adornment in this area) I managed to sop up with such shreds of red flannel as were immediately available much of the gray matter that had oozed into the open. This flannel I then pressed into the gory cavity. Next, raising the ramrod behind me with a painful effort, I tamped the whole thing home! Setting...

Let me spare you the gruesome tale of my slow and painful descent of Saddleback—of how on at least a dozen occasions I was forced, as I found my skull still leaking brains, to apply every ounce of my fast-ebbing strength to the herculean task of repeating, with red flannel and rod, the waddling and ramming operation.

But let me share with you my joy when at length, just as the old ramrod splintered to bits and the gaping wound claimed the last of the flannel (leaving me, I regret to say, stark naked), I swooned to safety on Judd Pillsbury's doorstep!

Eventually I recovered as well as could be expected, but the events of that day, together with the red flannel, have colored my whole life. And whenever you think from my writing that I am light headed or empty headed or hot headed or red headed, be charitable, I beg of you, remembering that there is red flannel in my brain!

Now that you know what's wrong with me, folks, and while I have a lucid moment, let's consider something a bit serious.

Guptill's Corner has been occupying space in Pencil Points for a number of years. I have enjoyed and profited from my share of it, and, judging from your many letters and your whole-hearted participation in the Corner Competitions, you, too, have found it of some value.

But now we must put it to a test to see whether or not it is to continue to exist. And here is the reason.

Some years ago my good friend Ernest Watson and I were sitting on the terrace of his delightful summer home in the Berkshires, swapping views on a variety of subjects, when our conversation brought out the fact that we had independently nourished for a long time the thought that there was a crying need in America for a magazine on art which would 'come down
to earth" and discuss art's many facets in everyday language and from a practical point of view.

Both of us, as teachers and as professional artists, had repeatedly been approached by individuals wanting to know all manner of "what-is-it" and "how-do-you-do-it" things. We had been asked, for instance, how to make a dry-brush drawing; how to lay out a perspective; how to represent glass in pencil; how to cut a frisket for spatter work; how to draw for reproduction; what engravings cost and the kind to get for a given purpose; how to make a dry-brush drawing; how to lay out a perspective; how to represent glass in pencil; how to cut a frisket for spatter work; how to draw for reproduction; what engravings cost and the kind to get for a given purpose; how to make oil paints dry faster; how to use the air brush; how to break into advertising art, and a hundred and one others.

Our writings, too, which mainly dealt in a practical manner with art matters, had been received in a most gratifying way, and the mails were bringing us many letters asking us to write on this or that technique, medium or method. All of which strengthened our conviction that a magazine, perhaps supplemented with small books, sets of plates and the like, would fill a definite void.

As our ideas and ideals coincided to a remarkable degree, we determined to join hands in an investigation designed to prove whether or not we were right. Outlining what seemed a logical tentative policy and program we presented it in whole or part to no end of art directors, supervisors, teachers in all sorts of classes from the grades up; to students of many ages and stages of progress; to numerous artists in the fine, commercial and applied art fields; to designers and craftsmen; to art editors, advertising agency executives, and other buyers of art; to amateurs and art lovers.

And everywhere we received every evidence that our scheme was basically sound. Furthermore, a vast majority of those interviewed volunteered splendid suggestions towards its fulfillment. It is one thing, though, to be convinced that a scheme is good, and it's quite another to cause it to function. Realizing our limitations, we long ago had the happy inspiration of taking Ralph Reinhold, publisher of PENCIL POINTS and other highly successful papers, into our confidence, so that he, with his life-time of publishing experience, could subject our plans to the severe tests demanded by modern business. We are glad to say that they not only came through unscathed, but so much improved that we urged Mr. Reinhold to join us in putting them into execution.

Since then, several years have gone by, but at last we are ready. With Mr. Reinhold as the active head, a new corporation has been formed, known as the Watson-Guptill Publications, Inc. It will bring out in this coming April the first issue of a magazine of the very type described above. This will be called ART INSTRUCTION. Mr. Watson and I will share the editorial honors. Leaders in many fields are already preparing articles. Various supplementary publications will also be brought out from time to time, the first of them now being available. The new company will for the present share offices with the Reinhold Publishing Corporation.

All of which leads to the question, "What is to become of Guptill's Corner?" You can readily see that I'm mighty certain to be more than busy for a while with all these new interests. Shall I drop the Corner entirely? Frankly, I hate to do so. I feel you Cornerers are all my personal friends. By hook or by crook I have reached you every month, and it's hard to think of signing off. Or shall I shrink the Corner to a page and try to manage it that way? Shall I drop it out now and then, if necessary, but otherwise run it in its present form? Shall I have "Guest Conductors," each filling an issue in his own way?

I'm asking you Cornerers to help settle this. And we must reach a decision soon. So won't you please grab a post card NOW, fill it in, address it to Guptill's Corner, PENCIL POINTS, and rush it to the nearest mail box?

We'll all appreciate this. If few cards come, we will know that few would regret the passing of the Corner, so doubtless we'll let it die: if lots of 'em come, we'll try to keep the thing alive in one form or another, considering your expressed views.

NOTE TO SUBSCRIBERS

The lateness of the publication date of the January, February, and March issues of PENCIL POINTS is regretted by the Editors. The causes are technical and to a certain extent beyond our control. In this issue, for instance, we have resumed the practice of including full color reproductions, which take more time than ordinary black and white printing.

With the April issue we expect considerable improvement, and by May should be back again on a regular schedule, so that PENCIL POINTS thereafter should be ready for mailing on the first of each month. We thank our readers for the patience they have shown thus far and assure them that every effort will be made to speed up production and avoid delays in future.
Three renderings by George Cooper Rudolph, Jr., of Philadelphia, illustrate a new and interesting approach to the problem of delineating architecture for today's client who is familiar with trends in modern painting. Edmund R. Purves was the architect in each case. The subject at the top is a residence in Delaware County, Pa. The two lower ones, in order, are an observation tower and pump house in the Poconos and a residence in St. Davids, Pa. Mr. Rudolph's skill and interest in making water color sketches no doubt suggested to him the idea of making renderings in this informal manner.
The Mission San Francisco Solano sketched in pencil by Muriel Hudson of Sausalito, California, on a sheet of smooth white paper 13 3/8" by 10 1/2"
The First Prize winner of the annual Collaborative Competition sponsored by the Association of the Alumni of the American Academy in Rome. The $200 was awarded to a team of students from the University of Pennsylvania and the Pennsylvania Academy of Fine Arts, the members of which were Henry M. Abbot (U. of Pa.), architect; Miss Mary Louise Lawser (Pa. Academy of F. A.), painter; R. Duhme (Pa. Academy of F. A.), sculptor; and Alfred Edwards (U. of Pa.), landscape architect. The problem was "A Private Museum of Fine Arts," and fifty-nine teams participated.
Another rendering of the prize winner in the Rome Alumni Collaborative Problem. The site for the museum is an island of about three acres situated in a private lake, and it is to be made accessible only by means of boats. In addition to the interior areas provided for paintings, etc., there are many pieces of sculpture which have been incorporated into the design and exhibited out-of-doors. The four arts have been used as basic units by the designers who have ideally combined them into a perfected unified idea. Each drawing is on a sheet 30 x 40 inches.