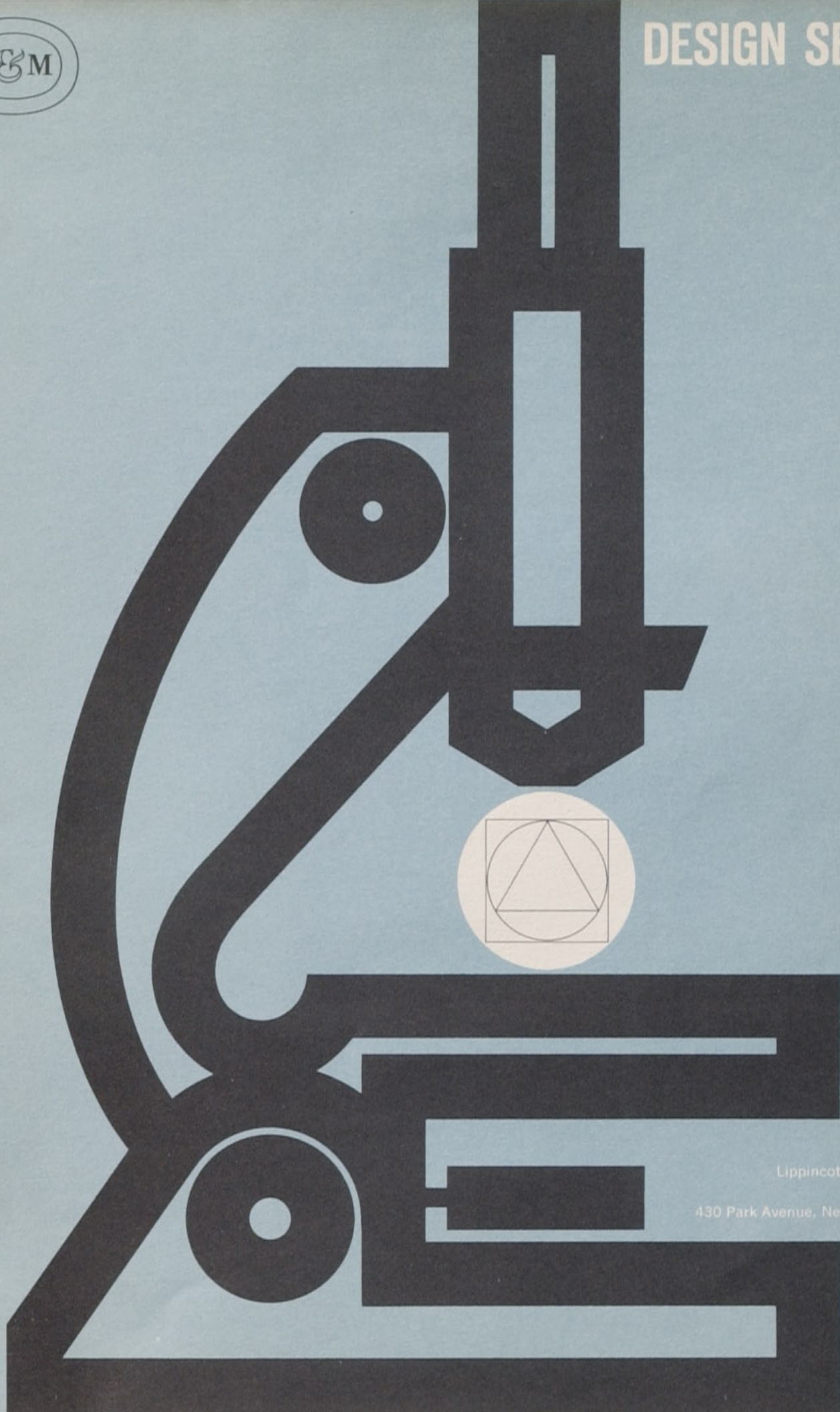




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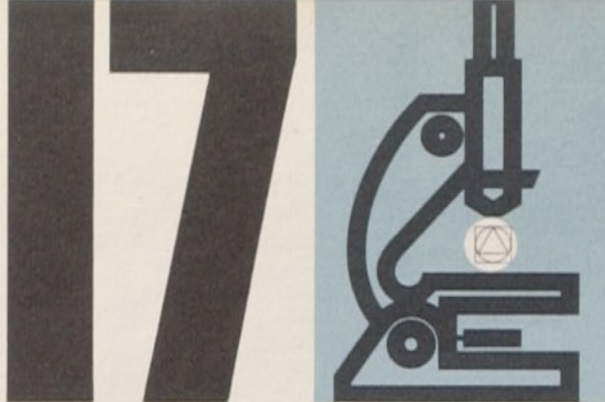


Progress Report On Design Research

Lippincott and Margulies, Inc.
Industrial Designers
430 Park Avenue, New York 22, New York



photographed at L. & M's first design research conference



A publication
on design as it affects
marketing, merchandising,
package and
product planning, research
and store planning.
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Industrial Designers
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New York 22, New York

PROGRESS REPORT ON DESIGN RESEARCH

Three years ago at New York's Hotel Plaza, L&M sponsored the first conference ever held on the subject of design research.

In two days of meetings, some 300 people — researchers, sales managers, university professors, designers, social psychologists, advertising executives — thrashed out the problems and pitfalls involved in securing meaningful facts about the intangible esthetics of design.

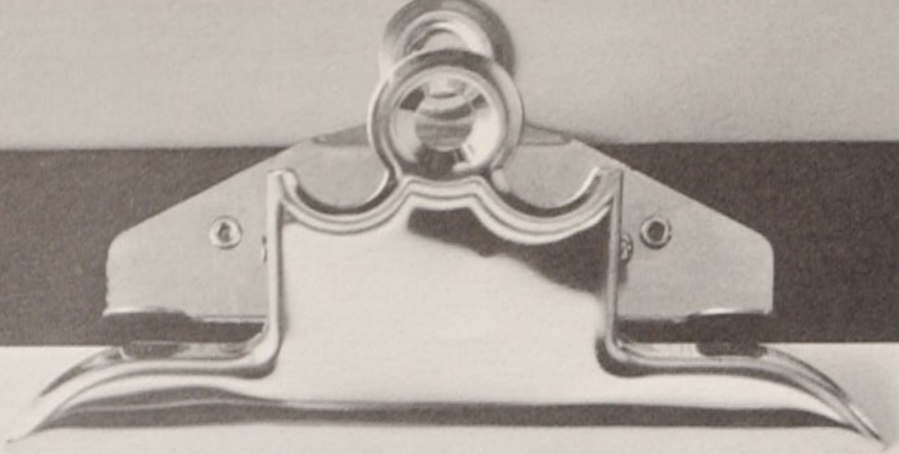
Now, on the eve of the third anniversary of that first conference, we thought it might be worthwhile to pause and take stock of what has happened to design research in thirty-six fast-moving months. For example:

1. What kinds of facts can design research now provide? How reliably?
2. What new fact-finding techniques have emerged during the past three years?
3. How well has design research worked for those who have used it?

To marketing men, answers to questions like these are of more than academic interest. Today, with new products hitting the marketplaces of the U.S. at a rate of about *26 per day* (and failing at a rate of close to *23 per day*), management needs more and better facts than ever before if it is to avoid the costly experience of product failure — now and in a somewhat uncertain economic future. This means more and better product development research; more and better market, media and copy research. And, to surround management decisions with safety, more and better design research.

This issue of DESIGN SENSE will essay a look back and a look ahead at design research. We think you will find it of interest.

John Lippincott — *Ruth Margulies*



"More good things have happened to design research in the past few years than in the past decades that preceded them. This progress has come about through the new realization by management of the importance of design as a marketing tool. And as design itself has gained stature, design research has also 'grown up' -- somewhat on its coat tails. Today it has come of age in several ways.

"It no longer has license to violate the requirements of good research generally.

"It has been liberated from the multitude of 'research machines' that often tempted people to measure first, and then try to attribute meanings to their measurements.

"It is now much more intimately related to the specific brand in question, and tailored to fit each brand's marketing history and marketing objectives.

"It has started to develop its own theories. These, in turn, form the basis not only for methodology in design research, but for creativity in design and intelligent action in product marketing.

"In sum, design research is, indeed, a 'new research.' And as such it can offer new and valuable insights into more successful product marketing."



My Helfgott
Myron J. Helfgott, Ph.D.
Vice President, Design Research
Lippincott & Margulies, Inc.

Marketing Workshop of
The American Marketing Association
January 11, 1960

DESIGN

RESEARCH

AND

THE CUSTOMER

One trouble with this pioneering business: you have to make your own roads. Nobody has been there before you.

This was painfully true three years ago in design research. Nobody had been there before — at least in any organized sort of way. In various parts of the country, people had investigated special subjects such as color, human perception, motivations and so on. A few of them had even applied their findings to package and product design. But one-stop-shopping for a complete design research study was practically unheard of. And research integrated with a specific design program was close to impossible.

As a result, L&M's design research arm has had to develop the criteria and the methodology to be applied to its area of activity. In the process, we discovered some revealing things about why consumers respond to design the way they do. These, we suggest, are of more than passing interest to marketing men. For what is true of consumer reactions to design as expressed in package, or product, or trademark, applies in many cases to the design of advertising layouts, or promotion materials, or merchandising displays — or, any other medium of visual communications.

Here are some of the things we now know to be true:

Fact No. 1

Consumer responses to design, though not rational, are nevertheless predictable.

Given a reasonably accurate profile of a specific consumer group, including data on its social class and its personality composition, we can now predict with a high degree of certainty what "kind" of design will be most effective in motivating a favorable response.

This correlation of social class with personality and design preference was first defined in L&M's 1959 study of U.S. taste. (See opposite page.) But along with this segmentation, the study also disclosed another vital fact about the U.S. mass market: *there is a common denominator of design that will work well among all groups.*

This "all-purpose" design is perhaps best characterized by the word "sentimentalized." It makes use of literal symbols, realistic illustrations, nostalgia, and romanticism — in other words, design elements that are highly realistic, and that leave no doubt as to what the emotional response of the viewer will be.

The lesson to be learned here is obvious. For those manufacturers in-

terested in a broad, "mass" market, sentimentalized design probably represents the most effective approach. Conversely, manufacturers who are pinpointing their product appeals to a specific segment of the total market can heighten the effectiveness of their efforts by using the kind of design that has the strongest appeal to that particular group.

Fact No. 2

In spite of the fact that consumer design preferences are not rationally arrived at, the consumer strives to explain them on rational grounds.

Consumers invariably feel a great inner need to explain why it is that they prefer one design over another. So much so, in fact, that if the question is not asked directly, they usually insist on volunteering the information.

Despite their earnest efforts, however, the explanations they give are rarely of any value. When the same consumer is asked to indicate preference for a completely different set of designs, she will usually give the same reasons all over again. In short, it appears that the reasons given are not the causes of preference. Rather they

are attempts to *justify preference after the fact.*

This provides another valuable cue for marketing men, i.e., it is of the utmost importance to give the consumer something she can use to help justify, or rationalize, her choice.

In the area of packaging, this means that informational copy on packages or labels becomes important, not just because of its inherent informational value, but because it supplies the consumer with additional "justifiers."

This is not just theory. We have found in repeated studies that the addition of informational copy to the label on an appliance or a package greatly increases preference for it. And we have also found that this additional copy is most effective when added to designs that tended toward the abstract — and thus provided the least amount of "information" through the design communication itself.

This need for justification suggests an added role for advertising. If the *design* of a product or its package is not capable of providing a complete image picture of the brand, then advertising can help to fill the gap by providing additional brand image information which the consumer can use to justify her choice.



HOW L&M'S TASTE STUDY WAS CONDUCTED

UPPER CLASS

UPPER MIDDLE

LOWER MIDDLE

UPPER LOWER

LOWER CLASS

We started with three matched groups of consumers, separated according to these social groups.

In order to measure personality patterns, we used a modified Thematic Apperception Test. Respondents were shown this picture of an ambiguous book cover and asked to choose which of three alternatives best fit the story in the book.



LOWER MIDDLE



SENTIMENTALIZED

Lower middle said things like the woman likes romantic movies, she is thinking about her flower garden, she wants her husband to be kind and thoughtful.

Upper middle said that the woman in the picture likes good books, is thinking about her job, wants her husband to be intelligent and refined — and responses of a similar nature.

UPPER MIDDLE



CONTROLLED

UPPER LOWER



EXPRESSIVE

Upper lower said that the woman likes lively parties, is thinking about eloping, wants her husband to be strong and masculine.

The subjects were then shown hypothetical designs for fifteen different kinds of products. Each of the fifteen product categories were made up of three designs which had been rated by a panel of psychologists and sociologists as representing **controlled** design, **sentimentalized** design or **expressive** design.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15



This is the one rated as "sentimentalized" by the panel. It was the first choice of the lower-middle class group.

To take just one example out of the fifteen, this beer label design was the one rated as "controlled" by the panel. It was the one preferred overwhelmingly by the respondents in the upper middle class group.



And this is the one rated as "expressive" by the panel. By and large, it was the one preferred by respondents in the upper-lower class groups.

From this the following relationships could be drawn:

Social Class	Personality Type	Design Preference
UPPER MIDDLE*	CONTROLLED	ABSTRACT, "INTELLECTUAL," "SOPHISTICATED"
LOWER MIDDLE*	SENTIMENTAL	REALISTIC, ROMANTICIZED, NOSTALGIC
UPPER LOWER*	EXPRESSIVE	BOLD, JAZZY, COLORFUL

*THESE THREE GROUPS CONTROL 85% OF CONSUMER PURCHASING POWER. THEY ARE THE SO-CALLED "MASS MARKET."

Fact No. 3

The consumer can — and does — react to a given design, but is almost totally inarticulate when it comes to talking about design in the abstract.

The consumer, we have discovered, cannot tell us what kind of design she would like to have. When asked to do so, even the most articulate among them run aground on the rocks of verbal clichés. They want it to be “nice.” They think the colors should be “bright.” They would prefer a “good looking design.” And so on.

These are non-committal — and, clearly, non-helpful — answers. To get meaningful responses, we must present the consumer with a set of design alternatives in the form of mock-ups of products, dummies of packages, etc. Once she has something concrete to sink her mental teeth into, the consumer can then make a valid choice (which she immediately justifies, as noted earlier, with a set of reasons that almost never are the real ones for her preference).

The application of this principle in various studies we have conducted on the design of gasoline service stations disclosed another interesting — even startling — fact: When a consumer does *not* have some design features on which to base, and around which to build her choice, then loyalty to the brand just *does not exist* (at least in the field of gasoline marketing). To put it another way, gasoline brand loyalty is less a loyalty to the brand than to the design appeal of the company's service stations.

Fact No. 4

The reactions of consumers towards design tend to support the existing realities of the marketplace.

Among the most baffling and un-hinging experiences of the past three years was the fact that when we gave consumers a choice between a *new*

package and the *existing* package of the same brand, time and again the vote went to the existing package.

Obviously, something was wrong. Fifteen years of experience in design told us instinctively that the new was visually better than the old. Yet, apparently, consumers didn't think so. And while this defense of the old varied in intensity from product to product, it was persistent enough to present a worrisome problem in terms of the validity and the usefulness of our research. So we probed deeper in a series of special motivational studies.

We discovered that (in design, at least) familiarity often seems to breed, not contempt, but a kind of “old shoe” affection. Probably in line with today's attitudes towards age and oldness generally, consumers apparently find it highly distasteful to *participate* in the killing off of a familiar design.

However — and here is the important thing — hard as it is for consumers to vote against an old design while it is still alive, once it is removed from the market they will react with astonishing speed and vigor to the new design. They won't “make” the change themselves, but when the right change is made by somebody else, they will welcome it avidly, and proclaim renewed loyalty toward the brand. In sum, the old cry of “The King is dead; long live the King!” seems to apply to design as well as monarchs.

Discovery of this inbred bias toward the familiar explained why our proposed designs did far better in the marketplace than we had predicted from laboratory comparison with the existing designs. But in addition to restoring our self-confidence, this series of studies holds lessons of value for anyone who, at one time or another, is faced with the problem of assessing the relative effectiveness of new vs. old in package or product.

In effect, we now know that re-

A recent L&M design research study involved eight brands of 21-inch portable fans. We wanted to determine for our client the relative importance of brand identification vs. design in influencing the customer's purchase preference.

Three matched groups of consumers were used. The first group was shown the manufacturers' names only, and asked to rank them on the basis of their experience with, or opinions about them as makers of household fans.

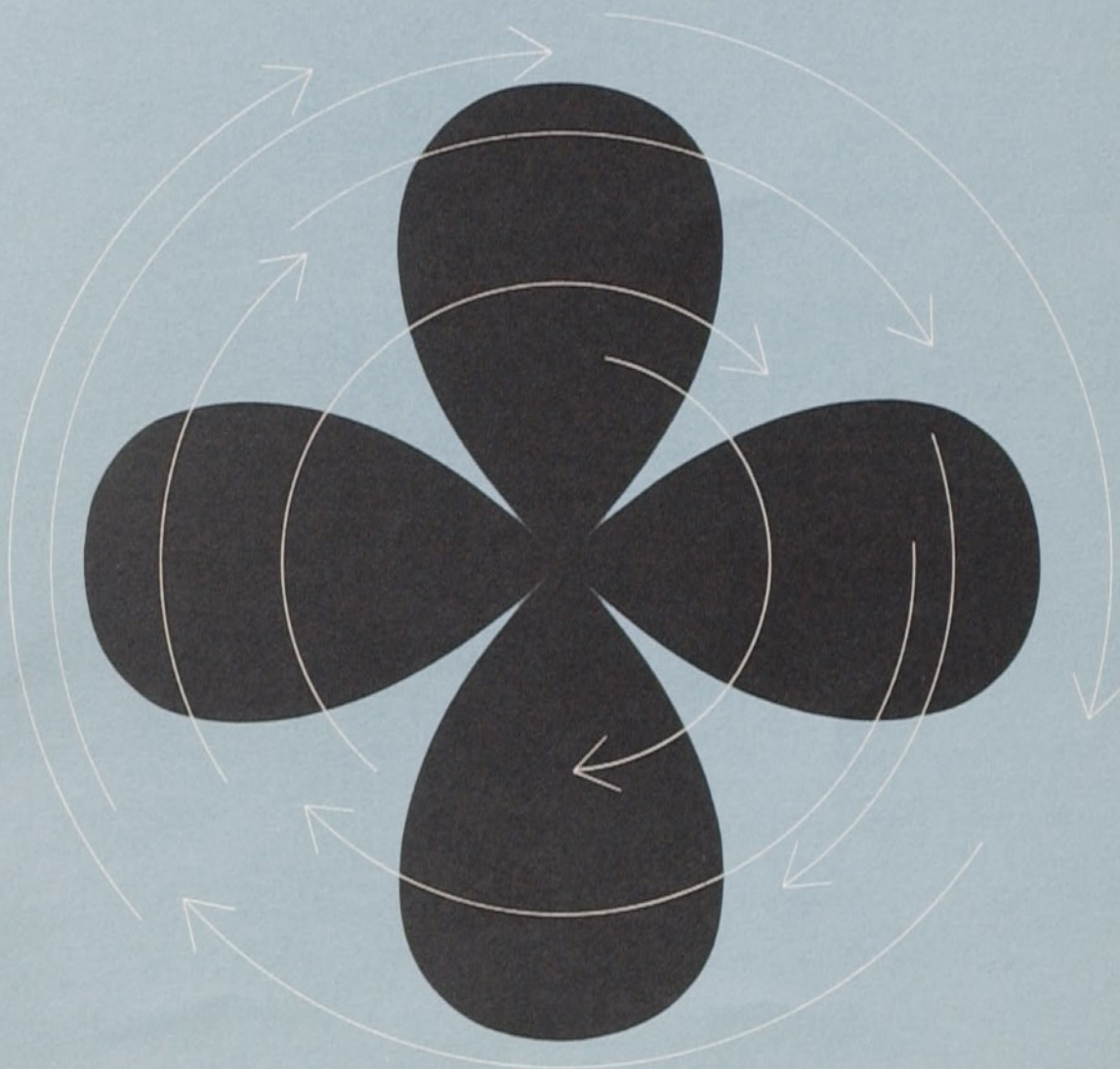
The second group was shown photographs of the eight fans, but with the manufacturer's nameplate or other identification blocked out. They were asked to tell us which fan — on the basis of design alone — they would be likely to purchase first; which would be their second choice; and so on.

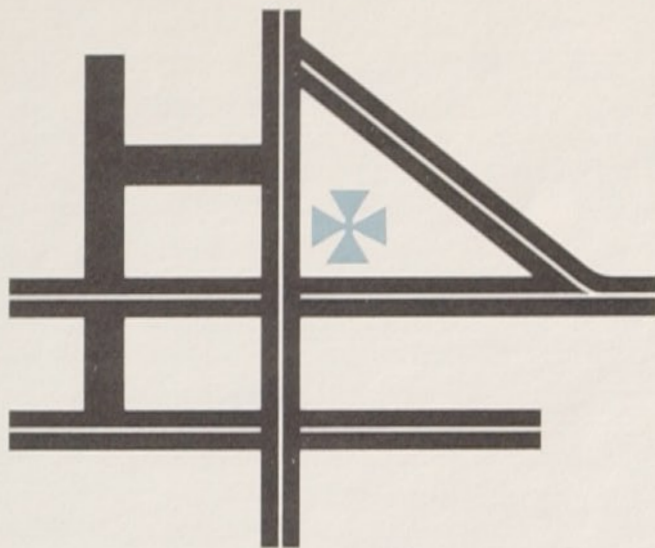
The third group was shown the fan photos, but this time with the manufacturer's nameplate visible — just as they might see it in a store. They were also asked to rate the fans in order of their purchase preference.

Details of the study are much too lengthy to adequately cover here, but its major findings are worth noting:

1. Design that is effective in suggesting such qualities as air movement capacity, safety, quality, convenience, etc. can do a remarkable job of "pulling up" a poorly known (or poorly thought-of) brand name.
2. Design that is ineffective in these and similar respects can "pull down" even the strongest brand name.
3. Effective design plus a good brand name constitute an almost unbeatable combination.

For all manufacturers whose products are sold in the atmosphere of today's self-service merchandising (see DESIGN SENSE 16), the lesson is clear: If you have a strong brand name, exploit it to the full. Put it where the harried customer, looking for things that will help justify her decision, can't possibly miss seeing it. If you have a less well-known brand name, then make sure your product design is the very best you can get. At the point of sale, it is your strongest ally.





Here is a gasoline station that consumers like. They will stop here — even though they may not be regular users of this brand. For, as we have discovered, the “look” of a gasoline service station is considerably more important to a motorist than the brand name of the gasoline it sells.

Previous research in the field of gasoline marketing had been largely confined to asking consumers what they wanted gas stations to look like — i.e., to tell us what design features influenced their “stop” or “go on to the next station” decision.

This had its drawbacks. We could not be sure they were communicating their real reactions. Frequently they were not conscious of some of the factors that were, in fact, influencing them.

So L&M’s design researchers came up with a new technique which did not require consumers to tell us their “wants” and which, therefore, bypassed their inability to express their true feelings. Instead,

we isolated the design factors first (thirty, in all) and then showed our consumer sample some forty colored photographs of service stations which had previously been graded according to these design factors. They were asked to rate each picture in terms of their preference for patronizing “a station that looks like this.”

Of the thirty design factors we had isolated, ten were found to be very important, and positively related to preference. **Fifteen** factors had little or no influence on preference. **Five** design factors which were commonly thought to encourage patronage actually inhibited it.

Perhaps the most significant finding was that consumers are not really concerned with details (how an individual sign, poster, or gas pump looks, for example). They see the station as an entity — a whole — and are attracted or repelled by its overall “look” and the way its visible physical features are combined to produce a total visual impression. This holds no matter whether the station is seen from a distance, from close up, or from the apron.

search in this area should avoid a direct, laboratory comparison between new and old since, invariably, the answers will be colored by the respondent's bias toward the familiar. Instead the research should attempt to reproduce the realities of the marketplace by seeking answers to two questions: (1) How would consumers react if the new design were put on the market? (2) How would they react if it were not?

Structuring the research in this way — new vs. competition, and old vs. competition — in fact, gives the consumer a far more realistic situation to respond to. In everyday shopping, for example, consumers are not usually forced to choose between a new design and an old design of the same brand. Forcing them to do so in research presents them with a highly unrealistic situation; inevitably begets unrealistic answers.

Fact No. 5

Consumer reaction to design is influenced by all the brand's other communications. In turn, consumer reaction to the brand's other communications is influenced by design.

This is perhaps the most significant discovery of L&M's first three years in design research, if for no other reason than because it provides confirmation of what we have intuitively "felt" all along: package or product design cannot fly solo. Its effectiveness can be markedly increased by the product's advertising, publicity and other marketing communications. In return, design can — and does — exert a strong influence on the effectiveness of all these other elements.

We discovered the truth of the first half of this axiom — that people's reactions to design could be radically influenced by something entirely external to the design — in a dramatic way during a recent study of beer packaging.

As the study progressed we noticed that responses were falling into an extremely erratic pattern. A surprising number of people had a strong — almost violent — dislike for the design. And for no apparent reason: there were no meaningful differences so far as we could tell between these "anti" people and the rest of our sample.

More to satisfy our own curiosity than anything else, we re-interviewed these odd-balls to find out what was going on. We discovered that *all* these people (and *none* of the others) referred to this brand of beer as the "headache beer." No, they hadn't actually experienced the headaches themselves, but they had "heard this" about the brand.

We suspected a rumor campaign, and reported our suspicions to the client. He investigated. Sure enough, a rumor campaign was indeed under way. The real point of this story is: here were a group of consumers whose feelings about the design had been completely distorted by an external communication that had nothing whatever to do with design.

The second half of the axiom was confirmed by a study that demonstrated that a package, as an ingredient of advertising, can actually influence the believability (and hence the effectiveness) of an advertising message.

In this case, our client was advertising his brand of cigarettes on the basis of a "most effective filter" copy claim. We tested one of his advertisements against a competitor's ad which featured the same copy claim, and then asked consumers which of the two brands they thought *really* had the best filter.

The study was conducted among two matched groups of consumers. One group was shown the two ads illustrated with their existing packages. The other half was shown the same two ads, but with a *new* package



substituted for the existing one in the layout of the client's ad.

In the first case — the two ads with existing packages — 42% of the respondents said they thought our client's brand really had the most effective filter.

In the second case — the two ads, but with a new package substituted in the client's ad layout — 64% of the respondents chose our client's cigarette as providing the most effective filtration.

This 50% gain in believability stemmed from two facts: (1) the design of the "new" package communicated the idea of "filtration" more effectively than the old package. (2) Because the package was new, respondents assumed that an improvement had, in fact, been made in the product itself.

This demonstration (which, incidentally, has been repeated with similar results for other products from scouring cleansers to floor waxes), would suggest that it is wise to consider a design change of some sort whenever a change or improvement is made in the product. Indeed, the claim

of "new" or "improved" can be reinforced in no more powerful way than by a change in design which signals this fact visually to the consumer.

RESEARCH AND THE DESIGNER

In addition to uncovering these little-known facts about the effect of design on consumers, we have also learned something in the past three years about the effect of research on design — and on designers.

Some designers have suggested out loud that research would tend to hamstring design creativity — especially research that was made part and parcel of a design program. A few went further, predicted that research would eventually attempt to dictate design solutions to the extent of doing everything but hold the pencil.

In practice, designers have been neither hamstrung nor dictated to by research. Indeed, we are delighted to report that their initial (and natural) suspicions have changed to welcome, and that other design firms are now

adding design research people to their staffs.

What has happened, of course, is that designers have come to realize that properly-conducted design research saves their time, prevents the frustration that comes with creating inspired solutions to the wrong problems. Equally important, they have found that their design recommendations are more readily accepted by clients when given the support of design research. In most cases, designers now look forward to research as a motorist on a foggy night looks forward to the white line on the highway.

To switch similes in mid-sentence, the relation of research to creative design has turned out to be very much like the relation of military strategy to military tactics. As all old soldiers know, strategy establishes the objectives of military action; tactics are the means by which the objectives are won. Both have to be right for success.

In the case of design, research establishes the overall marketing goals of the package or product design program. But once this is done, the designer is then left completely free to

create in any way that will accomplish these objectives. After design has done its creative part of the job, then research can evaluate, before the product is committed to market, how well the design solutions meet the criteria established.

In sum, design research — like pure science — gives us laws for proving. It can never give us laws for discovering. And discovering, so far as we are concerned, is still the function of the creative designer.

DESIGN RESEARCH AND THE CLIENT

Of the more than four-dozen major research programs conducted during our first three years, one stands out as a classic.

This was the pre- and post-design research conducted by Lippincott & Margulies for The American Tobacco Company's new Dual Filter Tareyton, a brand new cigarette featuring a completely new principle of filtration developed as a result of two years of research by The American Tobacco Company scientists.

Step 1:

Long before design was undertaken, the eight filter tip brands then on the market were subjected to four separate research probings. These were structured to secure facts about:

1. The visual effectiveness of each brand's package.
2. The overall preference for each brand.
3. The brand image of each of the eight cigarettes.
4. The influence of the package on, (a) the brand image, and (b) overall preference.

The first two questions posed no major research problems. The last two were tougher. In effect, we had to isolate the influence of the *package* on the brand image, and then measure its strengths and its weaknesses.

The solution was found by splitting the respondents into two matched groups. One group was shown the brand name only, *typed on index cards*, and then asked to rate the brands according to eight different image characteristics (mildness — strength; high quality — low quality; for quiet, reserved people — for exciting, emotional people; etc.). The other group was shown the actual packages and asked to make similar evaluations.

Then, by comparing the answers given in response to seeing the brand name, with the answers given in response to seeing the *package*, we were able to isolate the influence of the package design on the consumer's feelings about the brand.

In terms of brand imagery, the name "Tareyton" turned out to have undeniable assets: It was a respected name. It suggested quality, maturity and prestige. The existing *package* reinforced this imagery, thus confirming the fact that, *in terms of the marketing goals of prior years*, the existing name and package design had done their jobs well.

However, The American Tobacco Company, recognizing that the tide of consumer preference for filter cigarettes was running strong, saw the opportunity of capitalizing on the existing "Tareyton" name as a vehicle to carry their new dual-filter cigarette to market — *provided* the image of the brand could be broadened to encompass a wider market of cigarette smokers.

Step 2:

These marketing goals — as supplemented by research findings — told us where we were. It was now possible to establish the goals of the design program:

First: the design must suggest visually that the brand was a product of a modern company making quality tobacco products — and making them



with precision and craftsmanship.

Second: the design should emphasize visually the feature that was to make this brand unique among filter cigarettes — i.e., the new “Dual Filter”. But it should retain strong connotations of tobacco quality and flavor.

Third: the design should reinforce the present associations of the Tareyton name — the dignity, prestige and elegance of the existing package. But it should carry these images a step further and endow them with vitality.

Fourth: in terms of visual recognition, the new package should contain strong graphic identification features recognizable at a glance and easily retained in the consumer’s memory. At the same time, it should be distinctive from competing cigarette packages.

Step 3:

With these benchmarks to guide their creativity into the most productive channels, Lippincott & Margulies design team took over. One of more than a hundred design approaches, four seemed — intuitively — to be most effective in terms of achieving these goals. The question: which *one* of the four did the job best?

Design experience could take us this far. But there was too much at stake to permit leaving the final selection solely to personal taste and intuitive judgement — as long as research could help give us more positive indications. So design research was called on again, find answers to four questions:

1. How did the candidate packages compare in terms of visual appeal?
2. What imagery did each package communicate about the brand?
3. To what degree did each package convey the new “Dual Filter” story?
4. How acceptable was each package to present Tareyton smokers — and to smokers of other brands?

Measured against any of these yardsticks, the red vertical package did the most effective job. It had high visual appeal. It was by far the most successful in conveying the idea of American Tobacco’s revolutionary new filter. It appealed to both present Tareyton smokers and to smokers of other brands. Equally important: it had “Vitality.”

Final step was design refinement which emphasized the tobacco-leaf symbol in order to heighten the prestige connotations of the package.

Postscript

The effectiveness of any design — or design research program — is measured not by words but by the cold figures of market performance. Here, the new Dual Filter Tareyton has been outstanding. This is what Harry M. Wooten, authoritative source of cigarette industry statistics reported in the December 25, 1959 issue of *PRINTER’S INK*: “The Dual Filter Tareyton growth has continued without interruption since its introduction six quarters ago . . . Among sizeable brands, Dual Filter Tareyton was easily the leader in percentage growth, more than doubling its 1958 volume.”

DESIGN RESEARCH AND THE FUTURE

Three years ago when L&M inaugurated its design research operation, we made two predictions about its future. We said that . . .

1. We hoped to narrow the amount of guesswork involved in the marketing of packaged goods by developing measurements that would result in more precise information on design as it applies to package marketing.
2. We planned to apply what we learned in package research to other areas of visual communications . . . to product design, to brand and corpo-

rate imagery, to store and signage design.

Looking backward, we think we have made good progress toward both goals. In three years, L&M’s design research affiliate has built up a sizeable body of knowledge in its work on a wide variety of problems for more than fifty clients — including many of America’s largest corporations.

Looking forward, we can only say that the start we have made, good as it has been, is just a beginning. Design — *the creative side of marketing* — is still largely an unexplored frontier. And the goal of design research remains unchanged: to help produce more effective designs, which, in turn, will surely result in more effective marketing of products.

In fact, we feel strongly enough about the value of design research to management that we will be happy to share with others — businessmen, designers, communicators — the experience and knowledge we have gained in this field during the past three years. This does not mean opening our files to all comers. But it does mean that our doors and our minds are open to help, so far as is possible, anyone with a legitimate interest in, or problem involving the measurement of people’s reactions to design.

But to put design research — past, present and future — in its proper perspective, we can do no better than to repeat what we said as our Conference of three years ago ended:

“In the final analysis, it is well to remember that research cannot turn a poorly designed package or product into a bestseller. Statistics cannot substitute for the sensitivity of a truly creative designer. The most that research can do is give us clues as to how successful a design is likely to be as a spokesman for your company, or a salesman for your products. But the design must be there to begin with. And it must be good.”

We are proud to number

among our clients

Acme Visible Records, Inc.

American Community Stores (store planning)

American Laundry Machine Co. (store planning)

American Machine & Foundry Company

American Radiator & Standard Sanitary Corp.

The American Tobacco Company

Asgrow Seed Company

Associated Spring Corp.

Burru Biscuit Corp.

Capital Airlines

Central Soya Company, Inc.

Champion Spark Plug Company

Clairol, Inc.

The Coca-Cola Company

Commonwealth Products

Continental Baking Company

DX Sunray Oil Company

Falstaff Brewing Corp.

First National Bank of Minneapolis

General Foods Corp.

General Mills, Inc.

Gould National Batteries, Inc.

Homelite

House of Westmore

Imperial Tobacco Company of Canada, Ltd.

Keasbey & Mattison Co.

Kirsch Company, Inc.

The Kroger Company (store planning)

McKesson & Robbins, Inc.

New England Confectionery Company

Norton Company

Olin Mathieson Chemical Corp.

Owens-Corning Fiberglas Corp.

Pacquin, Inc.

Phillips Petroleum Co.

Richmond Hotels Inc. (hotel planning)

Seabrook Farms Co.

Standard Oil Company of Ohio

Standard Railway Equipment Manufacturing Co.

Stroehmann Bros. Company

Sylvania Electronics Div.

Union Carbide Corporation

United States Steel Corp.

United States Tobacco Company

Western Grocers, Ltd. (store planning)

