

LIKE A RAZOR TO A RAZOR BLADE COMPANY

... Technology, Profit, and the Friendly User at the Cutting Edge

by [Jim Pomeroy](#)

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A new age does not begin all of a sudden.
My grandfather was already living in the new age
My grandson will probably still be living in the old one.

The new meat is eaten with the old forks.

It was not the first cars
Nor the tanks
It was not the airplanes over our roofs
Nor the bombers.

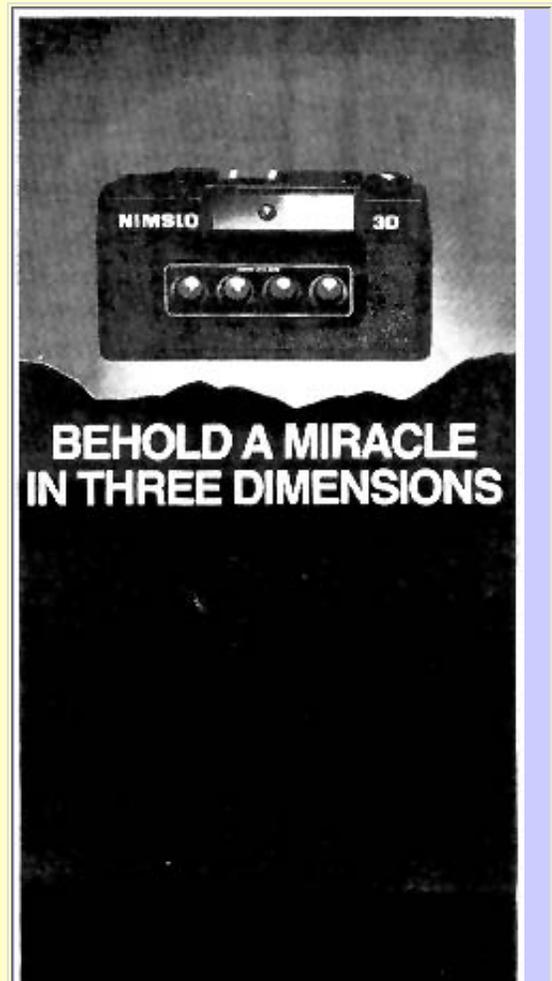
From new transmitters came the old stupidities.
Wisdom was passed on from mouth to mouth. 1

-Bertolt Brecht

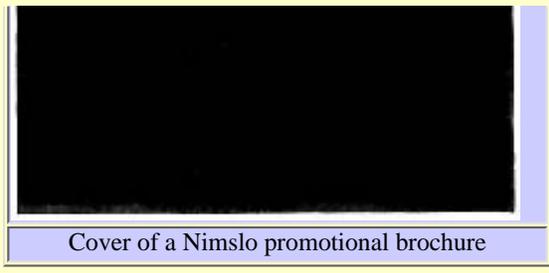
In the spring of 1982 Nimslo Corporation of Atlanta released a new camera into the test market of southern Florida. Originally priced at \$250, flash extra, this 35mm automatic camera embodied several unique features. Although utilizing normal 35mm colorprint film, it exposed four vertical negatives simultaneously through four lenses arrayed horizontally across the face of this otherwise innocuous looking camera. Film exposed in the camera can be mailed to the Nimslo labs in Georgia where a 36-exposure roll usually yields 18 3 1/2 x 4 1/2 inch borderless lenticular stereoscopic prints (similar to three-dimensional novelty postcards) at approximately \$1.00 per print (including postage, film, and "handling"; 8x10's are now available at approximately \$17.00 each.)² Following an intensive advertising campaign on network television ("Behold The Miracle!"), distribution of the camera is now nationwide, the retail price: \$199, with a competitive New York City rate of approximately \$80.00 per unit (in December 1983). Originally fabricated by Timex in Dundee, Scotland, current models (same design) are now contracted from Ricoh and Sunpak in Japan.³

As the first stereo camera to go into production in almost three decades, the Nimslo 3-D also represents the first appearance of lenticular stereo technology on the consumer market. This instance provokes reflections on similar en- trances of innovative technology, marketing strategies, and subsequent integration into photographic practice. The history of such relationships dates from the earliest inventions in photography and has profoundly affected the options available to photographers, which then ultimately colors all aspects of photography.

For refreshment, let's sip through a few vintages of the past. In the beginning, though the daguerreotype and the calotype were roughly simultaneous inventions, William Henry Fox Talbot's proprietary restraints



on access to his process hindered its utility. Acquisition of Louis Jacques Mande Daguerre's rights by the French government quickly placed his new tool in the public domain—at least in France. Although a unique object (i.e., non-replicable), fragile, and difficult to view as mirrored glass plates, the daguerrotype functioned as the standard well into the 1850s. No other permanent, reliable, or affordable systems were available. Photography opened with a polished, reflective silver gambit—precious, singular, and crafted. Photography's potential as flexible, reproductive technology, capable of cheaply reaping mass amounts of information, remained latent, in the grasp of a jealous petty aristocrat .4



Nevertheless, photographic practice quickly proliferated—almost everywhere. An unfortunate side-effect of the Talbot-Daguerre rivalry penalized British photography for a decade and a half. Daguerre had advantageously patented his invention in England and licensed it to Antoine Claudet, and later, Richard Beard. Secure in the belief that his process was superior, Fox Talbot likewise licensed a few studios to demonstrate the fact. In either case, fees for sublicenses were so exorbitant and infringement so aggressively prosecuted, that few photographers were able to maintain businesses, charging fees marked up from the high costs imposed by expensive franchises. North of the border, unbridled by patents, Scottish photography flourished; the monumental work of pioneers like David Octavius Hill and Robert Adamson was built on this statutory exception.⁵ Details of the French process had been quickly transmitted to the United States by late summer 1839, and the practice spread rapidly, unregulated. Similar growth occurred in most of the industrialized world. England, bastion of capital, enterprise, development, and protectionist laws was thus surrounded by explosive growth while its own photographic industry was hobbled by defeatist, embargoed "ownership." This condition persisted until new processes or nuances were perfected (and successfully defended in court) or the original patents expired. The legal mechanisms defining invention as property exist to the present as basic tenets of free enterprise.

History also provides contrasting examples where pivotal innovation was quickly and smoothly integrated with exponential results. In 1859 and again in 1861, the popular essayist, Oliver Wendell Holmes, published several articles promoting stereo photography in the *Atlantic Monthly*. An important outcome of his interest was Holmes's own design for an improved version of the Brewster stereo viewer. This design was fabricated and sold by the Boston firm of Joseph L. Bates. Neither Holmes nor Bates patented the design, apparently intending it for the public domain .6 Not only was this new viewer lighter, brighter, and adjustable, but it was inexpensive to build and easily mass produced. Buoyed to no small degree by the availability of these cheap, standardized stereopticons, the industry exploded. Relatively compact, fast, and easy to use cameras produced small negatives which could be safely transported in large batches. In turn, these plates were easily solar contact-printed, providing miniature, but exquisite vistas which filled the entire field of vision when viewed in the magnifying instruments. Predating offset reproduction by 30 years, mid-century stereo photography became the prototype for today's mass media. To wit, armies of photographers—as well as missionaries, soldiers, merchants, functionaries of new European empires, wealthy travelers and explorers, and others—fed hundreds of factories millions of images which were then distributed, mostly door-to-door, by thousands of traveling salesmen, to fill collections in the parlors of virtually every family in America (with a parlor). With its comprehensive range of foreign vistas, exotic cultures, historic sites, disasters, battles, expositions, shrines, "homilies, and burlesques accessible at once to thousands of remote spectators, the stereopticon provided photography with its first manifestation as significant popular visual communication.

Suckled by the increasing ubiquity of photographica, this public yearned for greater opportunity to gain access to the means of production for making their own images. Although many solutions were possible (significantly, including education), successful competition and manipulations of the market through publicity, prosecution, and aggressive centralization of power (buying out or destroying rivals) spawned a history with the tight tautological linearity of Darwinist evolution. The story is well known; the alternatives are forgotten.

George Eastman's legendary development of gelatin film and his subsequent success with the Kodak is generally credited as the final link in the democratization of photography. This put an affordable, 100-shot camera within reach of vast numbers of the population formerly restricted from participation in photography for economic reasons, and by lack of technical skills, access, or literacy. Eastman also erected the foundations of an empire.

Myth aside, there are ambivalent factors in Eastman's and subsequent "user friendly" designs. These are well described by Su Braden in her recent book, *Committing Photography*.

In his 1888 marketing campaign to promote his first simplified mass-produced camera and the idea of the "family snap," Eastman had suggested that a "collection of these pictures could be made to furnish a pictorial history of life as it is lived by the owner, that will grow more valuable every day that passes." Life as it was being lived by working class people in the 1880's

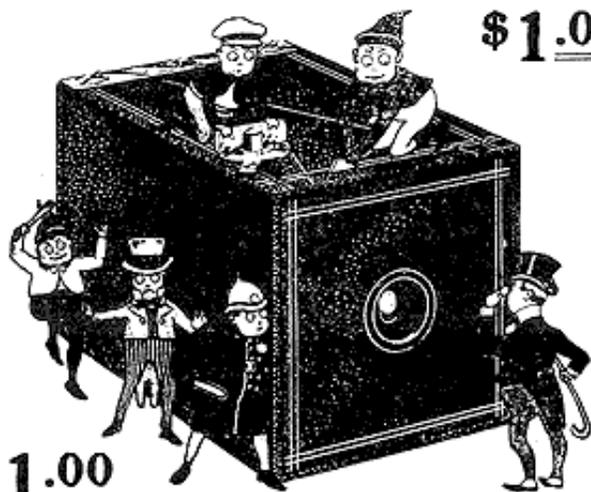
was very tough, but the design of Eastman's camera did not make it possible for them to photograph crucial elements of their histories such as working conditions in the factories or the insides of their homes.

... The value that Eastman had in mind was not the valuable role that the documentation of the lives of working people could play in their understanding of their own social conditions and in their efforts to change society. He was thinking of the value in nostalgia which had the opposite effect--helping people to accept the world as it was--to recelebrate the high spots and to convince themselves that their lives were all sunny scenes. Photography, as it is generally understood, taking pictures on the simplest equipment and having enprints made for family use, has been created by simplification rather than education. The simplification has been achieved by restricting the amount of control the photographer has over equipment and processing. With electronic flash built into the cheapest cameras, people can now photograph the insides of their homes ... such access to the production of photographs is only token if isolated from the questions about how the photographs can be published, used, and seen.⁷

Contemporary "innovations" such as the Pocket Instamatic, the Disc Camera, with tiny, grainy negatives, and the monoprint format Polaroid SX-70, with their exclusive color print "convenience," maintain this tradition. Nimslo's total system is merely the extreme-a reversion to the original form of the Eastman Doctrine-One Camera, One Laboratory, One Company, My Business, Under God.

Any school-boy or girl can make good pictures with one of the Eastman Kodak Co.'s Brownie Cameras

\$1.00



\$1.00

Brownies load in daylight with film cartridges for 6 exposures, have fine meniscus lenses, the Eastman Rotary Shutters for snap shots or time exposures and make pictures 2 1/4 x 2 1/4 inches.

Brownie Camera, for 2 1/4 x 2 1/4 pictures.	\$1.00
Transparent-Film Cartridge, 6 exposures, 2 1/4 x 2 1/4.	.15
Paper-Film Cartridge, 6 exposures, 2 1/4 x 2 1/4.	.10
Brownie Developing and Printing Outfit.	.75
Brownie Removable Finder.	.25

Take a Brownie Home for Christmas.

Brownie circulars and Kodak catalogues free at the dealers or by mail.

EASTMAN KODAK CO.
Rochester, New York.

a Camera that makes
STEREO PICTURES that seem to



LIVE
they're so life-like!

Stereo Puck the wonder camera

Make your pictures with the Stereo Puck and LOOK at them through the STEREO Viewer that comes with the camera. IT MAKES PICTURES in which every detail stands out in vivid relief. You almost expect the figures to step right out of the photograph, they're so real -- for the STEREO gives them the fourth dimension and perspective -- as in actual life.



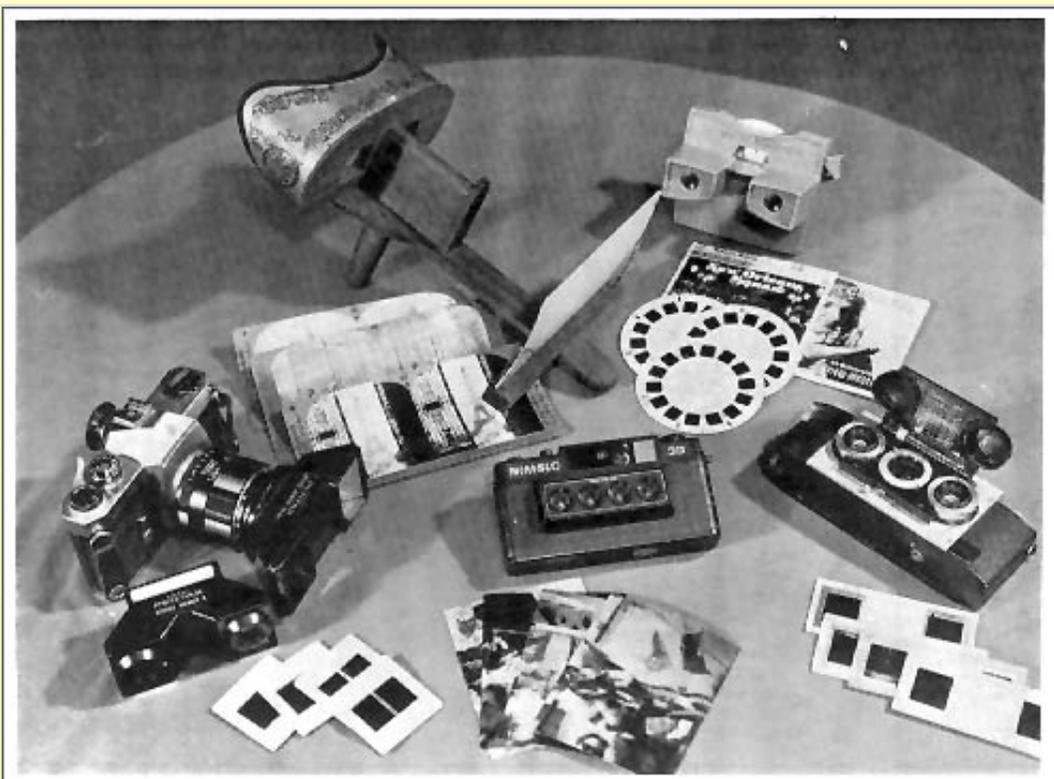
Complete with Stereo Viewer

\$7.50

Special Model with Magnifiers **\$8.50**

There's a fascination in the STEREO that you find in no other camera. You need no special equipment. Any camera and 2 1/4 x 2 1/4 film will fill. You can develop and print the pictures, or we will do it for you.

WILLOUGHBYS
110 West 32nd Street, New York



Stereoscopic AparatUSES,clockwise left to right: Asahi Pentax stereo viewer, and adaptor with split-image 35mm slides, Holmes viewer (modern facsimile) and cards, Viewmaster viewer and reels, Stereo Realist with double frame slides for Realist projector. Center: Nimslo 3-D with lenticular stereo prints. Photo by Jim Poreroy.

Roughly contemporaneous with the early Kodak, other so-called democratic forms were born. The development of cinema provided a technology ideally suited not only to mass presentation, but was affordable, portable, and replicable. Built upon the work of many, including Marey, Muybridge, Eastman, Lumiere, and Edison, motion picture technology has a complex geneology, resistant to proprietarial claims. Yet early film history abounds with patents, caveats, franchises, and lawsuits. Edison's efforts to dominate and control manufacturing, marketing, processing, production, and distribution contributed to the tawdry quality and limited quantity of early U.S. film and provide an explanation for the difference between domestic and European products of the period. The stranglehold of Edison and the Motion Pictures Patents Company cartel was not broken until a long series of suits, alternative structures (with significantly better products), and European imports (equipment as well as films) undermined and gradually dismantled the trust in the first decades of this century. Energetic prosecution and grotesque profits had briefly (from 1908 to 1918) provided the cartel with the power to intimidate all visible (i.e., quality) independent production and exhibition within legal, or not so legal, reach. Film legend credits this monopoly with the inadvertent location of the nation's film capital in southern California; "outlaw" filmmakers sought sanctuary in this remote region, close to the border and out of sight, to escape the goons and subpoenas dispatched from the New York offices of the conglomerate.⁸

These tendencies towards control persist today in conflicts between public access and corporate domination of network and cable/satellite broadcasting, and the interminable infringement battles over television/movie copyright threatened by the proliferation of consumer video hardware and distribution of blank and pre-recorded magnetic tapes.

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Photography is a modern art form, determined as a function of technology, economics, and forms of social organization. It is as much a product of capitalism, entrepreneurial marketing, and broadened literacy as it is an integrated application of chemistry and physics. It fuels and flows from large-scale industries; its history exhibits increasing reciprocal dependence on production for mass markets as mass culture displays an increasing dependency on photo-derived iconography (often at the expense of in-depth literacy). The stakes get higher; the pace quickens. Somewhere in this maelstrom, individual people make pictures with cameras, film, paper, and chemistry manufactured by very large corporations with interests often very different from those of their clientele.

The meteoric rise of Nimslo Corporation (the wholly owned subsidiary of Nimslo International, Ltd.) exemplifies certain dynamics which would normally be masked through the long growth curve of organizations like Kodak and Polaroid.

Like a Razor....

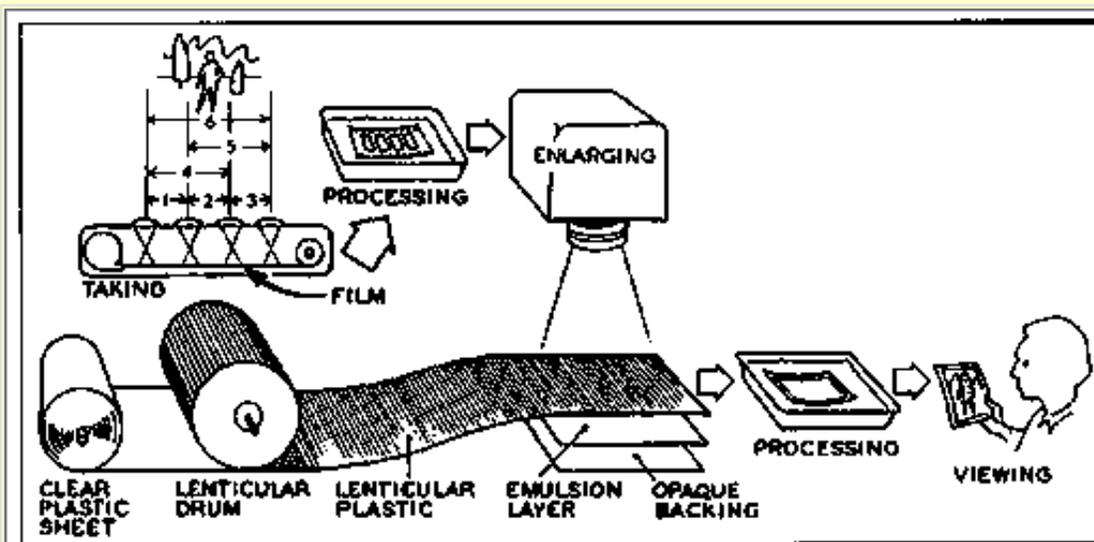
Nimslo makes one product, provides one service, and has done so for less than three years. Other comparable examples of large-scale, ingenu industry can be found in the computer realm, where the instant success and instant demise of Osborne Computer Corporation serve as a study in contemporary tech no-lifecycle pathology (as in post-mortem).

Osborne Corp.'s failure stemmed from their inability to maintain dominance in a field which they initiated. Previously a professional evaluator of trends and products in the computer industry, Adam Osborne conceived and developed a uniquely integrated system--microprocessor, disk drive, monitor, keyboard--all contained within a single, portable case. Although a new idea, it was hardly patentable, and other manufacturers were quick to offer systems which competed well. Osborne Corp., slow to respond, was undiversified, overextended, and poorly managed. The company became a dinosaur within two years, going bankrupt in the fall of 1983. Diversified firms like Atari and Texas Instruments survived similar disasters largely because they could absorb amputation trauma.⁹

In some respects Nimslo's prehistory is similar. The company was founded by astute engineer-designers, Jerry Nims and Allen Lo, former employees of the giant Japanese conglomerate Asahi, the world's leading manufacturer of 3-D postcards. They perceived the possibility of extending the difficult technology of lenticular stereography into the popular market by simplifying, standardizing, and producing quantities sufficient to make costs affordable. Culminating a 12-year effort, the project was financed with large-scale venture capital--\$47-million, most of which came from the Fred Olsen Group, the Norwegian owners of Timex--and a comprehensive camera-to-print system was developed.¹⁰ Unlike Osborne, however, key elements of the Nimslo system are patentable, proprietary, and relatively difficult to replicate anyway. Thus Nimslo stands, as of this moment, as a neat monopoly; the only aspects of their system outside of their control are choices of colorprint film and batteries.

Just what is the nature of this miraculous system? The Nimslo 3-D is a fixed focus, automatic exposure "point and shoot" camera--a normal 35mm snapshot camera designed with complete meter control for simple operation. Its 30mm f5.6 lens provides "normal" coverage across the vertical half-frame format. Time exposure, multiple exposure, interchangeable lenses, focus, and diaphragm control are not options. For \$80.00 Nimslo offers a small two-headed flash (adjustable bounce and direct) with hot-shoe-mount electrical contacts dedicated to the system. The camera contains no other photo-flash terminals, making it difficult to attach more powerful or flexible strobes. A more professional six-lens camera is rumored but very little concrete information has been published."

The heart of the system is the lenticular print, "...a three dimensional snapshot which can be seen without special glasses or viewers."¹² Prints are produced by laminating a screen formed of tiny cylindrical lenses onto photographic emulsion and processing them with a special multi-lens printer. Like the daguerreotype, the lenticular print is an exquisite, engaging, intimate object. Similarly, it is small, reactive to light and viewing angle, demanding close proximity. It also is relatively delicate--easily scratched and marred by fingerprints. Finally, this system restores a sense of mystery, the "magic" of photography: film exposed in their camera must be mailed to Nimslo Corp. for special photofinishing in highly secret computerized machines; no alternate services exist. And this processing is very limited indeed. Although set up to handle C-41 negative development, Nimslo refuses to develop Ilford XP-1 or similar black and white chromogenic emulsions, confining their services to color, and therefore the prints to fugitive permanence.



Thus streamlined, handling similar material exclusively exposed in identical automatic cameras, consistent high-quality output should be easily established and maintained. However, based upon approximately 50 rolls of film submitted by myself and colleagues since November 1982, I find Nimslo's average print quality to be mediocre, comparable to that produced by one-hour labs in most cities. Occasionally spectacular results are followed by orders flawed by bad color correction, poor contrast, generous cropping,

How Nimslo 3-D print system works: Four lens Nimslo camera makes six stereo pairs at once by producing four half-frame pictures on regular 35mm negative color film. Once processed, the four negative images are projected by an enlarging photofinishing machine onto a material consisting of an emulsion layer and opaque backing lenticular-faced plastic sheeting. The print containing the 3-D picture that is thus produced is then processed much like any color print, dried and viewed. (Actually prints are processed in huge rolls and cut apart at the end.)

exhausted chemistry, and frequent dust marks (Nimslo prints are obviously non-retouchable). Beneath the glossy spread of their manuals and publicity, consumer

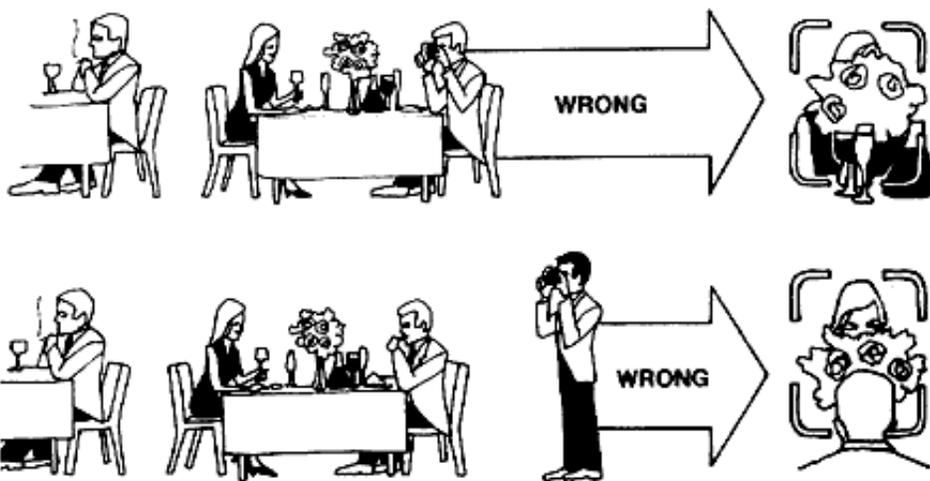
satisfaction is under-emphasized. Although Nimslo will reprint pictures returned by the customer, as well as negatives which were culled before printing (if the customer insists), both of these services entail longer delay than their usual seven to 10 day turnaround (to West Coast addresses). Slow postal service tends to fatigue consumer efforts to obtain consistent quality service.



Connie Juggling Christmas Citrus (1982), by Jim Pomeroy, a print from negatives taken with the Nimslo camera; these negatives were also printed by Nimslo as a lenticular stereophotograph.

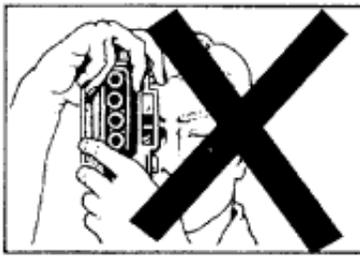
The last paragraph raises several important issues which, though unacknowledged by Nimsio, present major irritations for serious users. Nimslo advertises their prints as "professional" but their inconsistent, often poor quality work and sluggish response undermines working photographers dependent upon their services. Not only is the camera functionally limited and processing expensive, slow, and erratic, but Nimslo also intervenes directly in production of prints. They will not print negatives of "questionable" content; they will not print compositions they can't easily decipher; and they will not print images where the camera is tilted off the horizontal (poor Rodchenko!). In addition, each set of returned negatives and prints contains a brochure re-instructing users on proper loading, shooting, etc. Do frustrated professionals really need re-instructing in the limitations a remote corporation chooses to impose on its customers?

Things to avoid when taking photographs

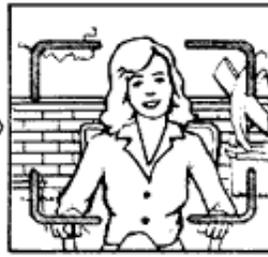


Neither of the situations above will result in pleasing photographs

KEEP YOUR FINGERS AND ALL OTHER OBJECTS AWAY FROM THE FRONT OF THE LENSES.



WRONG



2. INCORRECT camera position

Pictures taken while holding camera in the position shown in illustration 2 (above) WILL PRODUCE NEGATIVES WHICH CANNOT BE PRINTED INTO 3-DIMENSIONAL PRINTS.

Excerpts from two instruction brochures for Nimslo customers, returned with processed print and negatives

Under different circumstances these would not be serious problems. Usually competition would tend to lower prices and increase quality through marketing incentives, and the public could deal with other, less intrusive labs. But, pivotally, Nimslo controls the only access to processing of prints exposed in their cameras. This technology is not available to individuals. You cannot develop lenticular stereo prints in your personal darkroom, and you cannot order this work from your local, competent, trustworthy custom lab either. Nims and Lo have conceived and marketed a system which creates virtual bondage. This was confirmed in a pre-release press conference reported in *Industrial Photography*., "Steve Bostic (... executive director of Nimslo) explained that the camera is like a 'razor to a razor blade company.' Profits will come mostly from printing."¹³ In effect, Nimslo Corporation becomes an unwelcome collaborator in the production of every image exposed and printed through their process.



Three single frames from stereo photographs made with a Nimslo camera. Left: *Portrait of the Artist as a Wet Bather* (1983), by Connie Hatch, a well exposed image printed from a color negative which Nimslo returned without printing. Middle: *Mission Street, San Francisco* (1983), by Jim Pomeroy, an example of a composition which violates Nimslo's rules for proper camera angles. This photograph, and right: *Liberty Lunch* (1983) by Jim Pomeroy, were made from black and white transparencies, a process unavailable from Nimslo.

Like a Razor....

This idea is not new, but the state of photography has changed somewhat since the apocryphal days of George Eastman and Kodak #1. The camera buying population is educated, relatively affluent, and sophisticated; viable alternatives are abundant. What strategies are necessary then, "to garner 4% of the world's \$19 billion photography market by 1985"?¹⁴ Nims and Lo see their commercial advantage as historical necessity. In their words,

Man has been making images since prehistoric times, and it seems to us that if we survey the broad sweep of image-making history, we can see a commitment to increasing naturalism.

The ancient Egyptians, with their diagrammatic renderings, painted what they knew, not what they saw, while the Greeks of the third and fourth centuries [B.C.] clearly intended their sculptures to be more life-like. Through medieval times, painters explored movement and color, and with the Renaissance came a major breakthrough in visual realism with new techniques for rendering perspective. The Impressionists--whose first exhibition was held in a photographer's studio--proclaimed that their methods allowed them to paint with "scientific accuracy." Again, they were claiming an increased realism.

This humble ethnocentric gloss is developed further on:

The search for the realistic portrayal of the world in color and the search for three-dimensional imagery are both almost as old as photography itself. However, the quest to record the world as we physiologically and psychologically perceive it as only one of the factors we must consider. Equally and sometimes more important are such factors as convenience, cost and what we call "degree of personalization."

These terms are clarified in another paragraph:

Convenience is a major factor in the widespread acceptance of any visual medium. For example, people normally prefer color prints made from negatives, though these may often be markedly inferior in quality and more expensive than color slides taken with the same camera! Most people simply don't find transparencies convenient to view. Convenience is also a selling factor with self-developing print systems. No wonder, then, that the complications of taking, mounting and--particularly--viewing stereo images (according to the system used) were felt to compare unfavorably with the convenience of viewing a flat print.

The degree of personalization has also been a major factor in the acceptance of various image-making systems. It is highly significant that, for example, most people prefer to take their own photos of, say, Disneyland rather than purchase the commercially available--and cheaper--high quality postcards and slides. People want to record what they saw, their experience, not buy someone else's. This is even more the case when it is possible to pose a member of one's own family or a close friend in the scene. The Victorian stereo boom was largely based on commercially-produced views. George Eastman left that industry at the gate when he personalized photography--"You take the picture" (personalization), "We do the rest" (convenience).

And "some final thoughts":

We are convinced that we have not only technological advances which make three-dimensional photography a practical proposition for the first time, but also that the three-dimensional image produced represents a visual breakthrough taking us another step closer to the real world. ¹⁵

These arguments nicely sidestep the important problems posed by Braden in regard to Eastman-simplification at the expense of education (convenience?) and placement of self into ideological fantasy (personalization?). Both terms express a position of passive complacency within a framework of manipulative condescension. By limiting personal access to significant steps in the creative, editorial, and selective processes, Nimslo encourages mediocrity. Further, their enforced control of the production cycle limits application, quality, experimentation, and autonomy, to say nothing of privacy and author's privilege of first viewing.

It is worth noting that among Nims's favorite charities are right-wing religious publications advocating the increased presence of "Christians" in government." In this light, corporate monitoring of personal production and unanimous control take on an ominous tone. My feelings of consumer's rights and First Amendment protection are rattled when I read Jerry Nims quoted in Billy Graham's church organ, *Christianity Today*:

"For example," he says, "child pornography is an abomination. We should pray for the child pornographer, but we should also enter into society and try to remove the destructive opportunity he has under the guise of freedom of speech." In addition, Nims asserts he would not hesitate to break a law of society if he knew he had to keep God's law.¹⁷

Arguably, child pornography *is* an abomination, but warping principles of freedom of speech to conform to narrow, fundamentalist strictures is unsettling.

Does this include work submitted by Nimslo's customers to their secretive processing? God knows! But I am increasingly disinclined to expose my work to this scrutiny. If Eastman's inventions democratized photography, Nimslo's contribution sanitizes it. You are allowed to see your own work only after it has been carefully packaged and inspected for you--at your own considerable expense.

What's wrong with this? It's a free country. Why doesn't the customer simply move on to a better product, better

service? If this is a problem, won't business take its course and leave the inflexible, insensitive entrepreneur patronless? It might if there were alternatives. Unfortunately, Nimslo is the only affordable, accessible stereoscopic camera in current production--the only game in town. It's exasperating that, aside from the novelty value of 3-D snapshots, stereoscopic photography has countless applications in graphic, scientific, medical, and sundry fields (brain scans, aerial surveys, computer visualizations, etc.) as prints, projections, or cinema. The fact that a corporate entity would raise over \$47-million to develop a full system which prohibits such utility implies incredible arrogance. It's a cold position of smug superiority, doling out services and options along with carefully calculating balances of taste, need, and economic tolerance. Unlike computers, stereo photography is an old science with known applications and potential. These are not well-served in this case, and Nimslo's posture reveals a strong scent of hubris.

With an advertising budget of \$25-million, Nimsto Corporation lost \$18-million in 1982 (ostensibly, wildcat strikes in Scotland severely reduced expected production, and dealers were not able to meet the need generated by the massive publicity). The original campaign was dropped, possibly because "many felt ['Behold the Miracle'] overstated the offerings of 3-D."¹⁸ This was an expensive miscalculation. The shortsightedness of their design and marketing has also been characteristic of their investigations of potential application and consequent benefits. While advertising comprised a huge portion of their corporate resources, apparently very little funding went towards subsidies of experimental work by experienced outside professionals--a practice formerly employed by Polaroid which entails relatively cheap risks while providing good public relations, informed feedback into nuances of system designs, as well as good reproducible showpieces. Nimslo's only effort thus far, an exhibition organized through Castelli Graphics in New York City (April 12-May 24, 1983) featured work by 83 artists. Each artist was briefly loaned a camera, provided by Nimslo and distributed through Castelli. Nimslo covered processing costs, and each participant selected an image for 8x10 inch reproduction for the show. While the exhibition generated some interest as a media event, it was a critical flop, ¹⁹ possibly because few photographers had enough time with the equipment to actually move beyond initial experiments. Similar exhibitions, roughly based on the same scheme, are being planned at private galleries in other regions of the U.S. Clearly, these shows are extensions of advertising policy rather than research grants for extended investigations. Celebrity artists are used to attract attention, but substantial support is not offered to stimulate serious use of what can easily become another expensive high-tech toy. Furthermore, corporate secrecy and aloofness suggest mistrust of or disinterest in interactive cooperation. Nimslo doesn't seem eager to share information; they never responded to my request about policy concerning this or similar programs.

For the time being, sales are holding and the camera is available, but success will depend on real utility and real need, not ceremonial snaps for weddings and birthdays. If their venture fails, which it certainly may, the multinational gamblers who financed Nimslo will move on to new games. The real losers will be the users stranded without processing and printing and the public deprived of a potentially useful tool, once again jaded after utopian promises sour.

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The greatest tragedy of stereoscopic photography (and similar forms of extra-pictorial media--anamorphs, lantern slides, panoramas, zoetropes, etc.--stems from the seeming dependence on ephemeral forms of presentation; these always require some kind of intermediate emulation of natural binocular vision (Nimslo included). Eye strain encourages disillusionment (no pun intended). What's more, improvements are constantly introduced into the market, quickly obsolescing extant modes. Chronic "innovation"--with very little qualitative information handed down to subsequent generations--creates a condition of eternal primitivism, constantly being at square one: once again garbage in your lap but this time in living color with dolbyized six-channel SurroundSound. This results in the failure to motivate or support intelligent, skillful contemporary work and the isolation of such work from its historic, social, and aesthetic associations. Our cyclical exposure to the stereoscopic experience can be easily summed up as shock-insult-boredom-yawn-repeat.

Perhaps the diminutive scale of prints, low-brow popular appeal, corny topicality, and collectors' indifference tend to deride the stereograph's historical worth--valuable primarily because of those elements. This lack of connoisseurial sanction undermines the commodity value for commercial galleries and consequently, critics and museums generally ignore stereo photography. Resources such as the Keystone-Mast Archive at the California Museum of Photography at the University of California, Riverside and studies like Edward Earle's *Points of View: The Stereograph in America--A Cultural History* ²⁰ are too few and far between the plethora of disguised promotion motivated by scholars with conflicting roles as collectors, dealers, curators, and critics. ²¹ (Toot your own horn or blow the whistle. Not both at once, please.)

The current phase of 3-D resurgence thrusts upon us such Son-of-Stewardess screengems as *Comin' At Ya!*, *Friday the 13, III*, and *Adventures in the Forbidden Zone*. More of the same assaultive, infantile, predictably exploitative, thin, eye-straining head-and-wallet-aches we've had thrown in our faces for 30 years. With the possible exception of Alfred

Hitchcock's *Dial M for Murder*, there has never been a three-dimensional feature film capable of sustained critical attention. 3-D publications likewise stress cheap thrills, cheesecake, and horror comics. Why is our contemporary stereoscopic output so dreadful? Perhaps the quality has something to do with a formula which computes the greatest profit as a function of condescension divided by the lowest common cultural denominator multiplied by the largest possible audience, shock squared, plus a qualifying element--the cost of mounting new technology is subtracted from the subtotal but compensated by an increment of hype which hopefully restores the profit sum to projected levels. Quality, content, and access are not part of the equation. In the rare instance of increased personal access, such as Nimslo, we find other constraints which follow the pace set by these familiar norms.

Nimslo's selective limitations on applications puts them in a commanding position. The only possible choice is their product--small, precious, relatively unique objects, vulnerable fugitive prints which may only be viewed in the intimate confines of albums, galleries, and small edition publications. Although Nimslo could make other choices available, their decision has been to withhold them for the time being. Such options include better cameras, integrated equipment, laboratory licensing, professional or home processing, projection and multi-media applications, expanded emulsion choices (black and white, high speed, infra-red, etc.), publication of relevant technical data, and access to all areas of production. Still, it is unrealistic to expect a monopoly to offer these options unless motivated by profits.

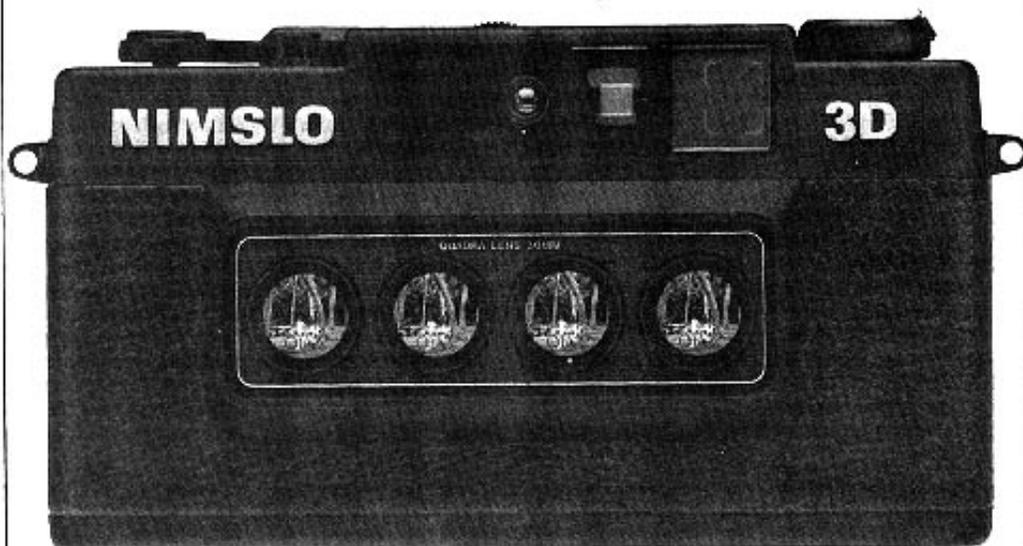
As a picture-making device, the Nimslo camera is designed for ideal use at a social distance of casual encounter (5-7 feet), which nullifies the possibility of close-up scrutiny or wide-angle pictorial depth. Confining its range to candid portraiture and product display of roughly conversational scale, the camera denies both real intimacy and environmental context. Deviations from these norms are penalized through inherent defects of the system. Fixed focus and non-adjustable parallax preclude close-ups. In pictures with dramatic differences between foreground and background, ghost fragments of pictorial elements result which are hard to resolve in the print. (Although Nimslo's multiplexing process allows adjustment of the perceived picture-plane "window," these adjustments are made in the plant by a technician, not by the photographer. Moreover, consumers are not informed of the availability of this service.) Also, the multiplexing process and the imprecision of the 200-per-inch cylindrical plastic lenses dulls the color and flattens the contrast of the image as well as severely decreasing its definition. These shortcomings are obscured by exaggerated depth, displacement, and apparent detail. The problematic intermediate "viewer" which plagued earlier systems is possibly now less cumbersome, but still present in the laminated lens screen. Since a much greater pictorial spectrum--macroscopic to full-vista landscape-- was available in the nineteenth-century stereo views and the Stereo Realist and Viewmaster formats of the 1950s, Nimslo's solutions hardly seem to signal an uncompromised improvement.

Ironically, for committed stereo photographers, the only pragmatic alternative to dependence upon Nimslo's restrictive marketing strategy is the Nimslo 3-D itself. Exposures of transparency film yield images of considerably sharper definition and tonal range than provided by the plastic lens laminated print. If the outer images of the exposed quad are mounted and transposed as normal stereo pairs, they work easily, fitting well into the vast encyclopedia of stereo photographs. Since the pair fills a normal 35mm slide frame, stereo projection is possible given the current audio-visual technology available--i.e., dissolve, slide-tape synchronization, and multi-image spectacle. Commercial systems for 35mm single slide stereo were manufactured in the 1950s but have faded long ago into obscurity. Printed below is a rough description of a projection system which can be assembled for about \$10.00 material cost. This system works well with Nimslo pairs, split-frame images from the Asahi Pentax adapter, or copy slides of any stereo pair which fills and splits the normal 24x35mm rectangle, including all stereopticon views. Stereo Realist pairs can be remounted to split 2 1/4 frames and the system scaled up to use standard 2 1/4 inch projectors, or they can be copied and reduced to fit the 35mm split-frame above. Similar processes can be used to adapt the Viewmaster format as well. Prints are easily produced, either negative or reversal, as normal pairs in classic fashion.

The history of photography coincides smoothly with the history of corporate capitalism. The parameters enjoined by innovation, ownership, manufacturing, marketing, profits, easy obsolescence, fashion, and the enticement of consumers frame illusions of free choice, mobility, and imagination. These mechanisms are profoundly real and effectively naturalized--i.e., invisible. They brace the horizons of ideology and flood the atmosphere of intellect, as we live and breathe. Here, Nimslo is just a convenient example to reveal this impact on a level of personal engagement as we, once again, **Behold the Miracle**.

NIMSLO
3-DIMENSIONAL PHOTOGRAPHY

A Total Photographic System



Cover of a promotional brochure for the Nimslo 3-D camera.

NOTES

1. "New Age," *Berfolt Brecht. Poems 1913-1956* (New York: Methuen, Inc., 1976), p.386.
2. Nimslo Corporation advertising, order forms, manuals, and packaging.
3. Gay Jervey, "Nimsio Plans Another 3-D Camera Effort," *Advertising Age*, March 14, 1983, p.6.
4. Andre Jammes, *William H. Fox Talbot, Inventor of the Negative-Positive Process*, English translation by Maureen Oberli-Turner (New York: Collier Books, Macmillan Publishing Co., 1973), pp.11-15.
5. Helmut and Alison Gernsheim, *A Concise History of Photography* (New York: Grosset & Dunlap, 1965), pp.66, 80-85; Beaumont Newhall, *History of Photography: From 1839 to the Present Day* (New York: Museum of Modern Art/Simon & Schuster, 1949), pp.17, 22, 41-47; Peter Pollack, *Picture History of Photography*, (New York: Harry N. Abrams, 1958), pp.51-53, 78-81, 94.
6. Robert Taft, *Photography and the American Scene, A Social History, 1839-1889* (New York: Macmillan, 1938), pp.178-85.
7. Su Braden, *Committing Photography* (London: Pluto Press, 1983), p.20.
8. Benjamin B. Hampton, *History of the American Film Industry: From Its Beginnings to 1931* (New York: Dover Publications, 1970), pp.19,66, 77, 79, 86,101,104,124-5.
9. Fred R. Bleakley, "Behind the Big Collapse at Osborne," *New York Times*, Nov. 6, 1983, Business section, pp.1, 26.

Like a Razor....

10. Rosemary Brady and Desiree French, "Go Ahead and Dream," *Forbes*, Oct. 25, 1982, p.111; "Follow Through: Photo Finish," *Forbes*, May 9,1983, pp.21-2; Henry Altman, "Creating a New Camera Is No Snap," *Nation's Business*, January 1983, p.40; "Can the 3-D Camera Click This Time Around?," *Business Week*, June 27,1983, pp.72, 76.

11. Product critique is based upon personal use, conversations with other users, and reviews: Michele A. Frank, "The Gadgeteria: Step by Step, Nimslo Approaches the Market with its 3-D Photography System(s)," *Popular Photography*, October 1981, pp. 46, 50; David Starkman, "Newviews: Nimslo Firsthand Users Report," *Stereo World*, July/August 1982, pp. 27-28; Lenny Lipton, "First Look: Nimslo 3-D," *Popular Photography*, September 1982, pp.200, 208-210; "Top Cameras for 1983: Nimslo 3-D," *Modern Photography*, December 1982, p.128; "Once Over: Four-eyed Camera Makes 3-D Snapshots," *Consumer Reports*, November 1982, p.540; "A New Stereo Camera," *Consumer's Research*, February 1983, p. 19; "Nimslo: Super Scam or Sensational New 3-D System?," *Modern Photography*, January 1981, pp.60-62 (illustration of process, p.60).

12. Brady and French, op. cit.

13. "European Newsletter," *Industrial Photography*, May 1980, p.10.

14. Brady and French, op. cit.

15. Jerry Nims and Allen Lo, "Nimslo System Adds A New Dimension to 3-D Photography," *Industrial Photography*, August 1980, pp.20-23.

16. Francis A. Schaeffer, *A Christian Manifesto* (Westchester, Ill.: Crossway Books, Good News Publishers, published in association with Nims Communications, 1981); and Franky Schaeffer, *A Time For Anger. The Myth of Neutrality* (Westchester, Ill.: Crossway Books, Good News Publishers, produced by Nims Communications, 1982). These ideas are potently summarized in a prefatory blurb for Schaeffer's *A Christian Manifesto*:

A Christian Manifesto is literally a call for Christians to change the course of history--by returning to biblical Truth and by allowing Christ to be Lord of all life. To do this, Schaeffer says, will involve a head-on confrontation with the false view that material or energy, shaped by chance, is the final reality.

Schaeffer's provocative conclusion is that when the state directly defies the absolute law of God, its authority becomes illegitimate. In this case, the Christian is bound to resist the state by whatever means necessary--through direct legal and political action, and possibly through massive demonstrations of civil disobedience.

Correlary tenets are amplified in the companion volume by Schaeffer's son Franky, in *A Time For Anger: The Myth of Neutrality*:

We are not to seek the approval of men or fear the ridicule of a short-sighted secularist world. In the end, it is God we must fear and Him we must obey. To obey the bureaucracies, the courts, the whims and social trends of a humanist culture, even the debate and edicts of co-opted theologians, is to forsake obedience to the One to whom ultimate obedience is due (p. 153).

Ours has been a religion of faith without deeds for too long. It is time that mighty deeds be done again. Truth equals confrontation (p. 154).

17. Randy Frame, "Jerry Nims: Backing Books from the Religious Right," *Christianity Today*, Nov. 26,1982, pp.38-40.

18. Jervey, *Advertising Age*, op. cit.

19. Harvey V. Fondiller, "Shows We've Seen," *Popular Photography*, August 1983, p. 80; and Kay Larson, "Art: Beyond Pure Photography," *New York*, May 2,1983.

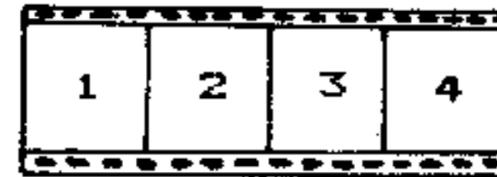
20. Rochester, N.Y.: Visual Studies Workshop Press, 1979.

21. For a discussion of such conflicts, see: Catherine Lord, "A Critical Circular," *Afterimage*, Vol.11, Nos.1&2 (Summer 1983), p.4; and Abigail Solomon-Godeau, "Calotypomania: The Gourmet Guide to Nineteenth-Century Photography," in the same issue, pp.7-12, (see especially p.12, footnote 3).

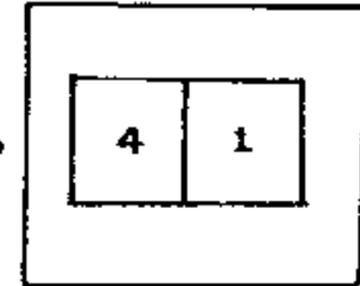
**- PUBLIC DOMAIN -
SINGLE PROJECTOR STEREO**

NIMSLO slides must be transposed.
See diagram

Use Asahi Pentax Viewer for previewing
and inspecting mounted slides.



Cut and mount in GEPE # 6102



CAROUSEL PROJECTOR or
any other - adjust
dimensions as necessary



Lens variable -
Adjust mirrors and filters to suit

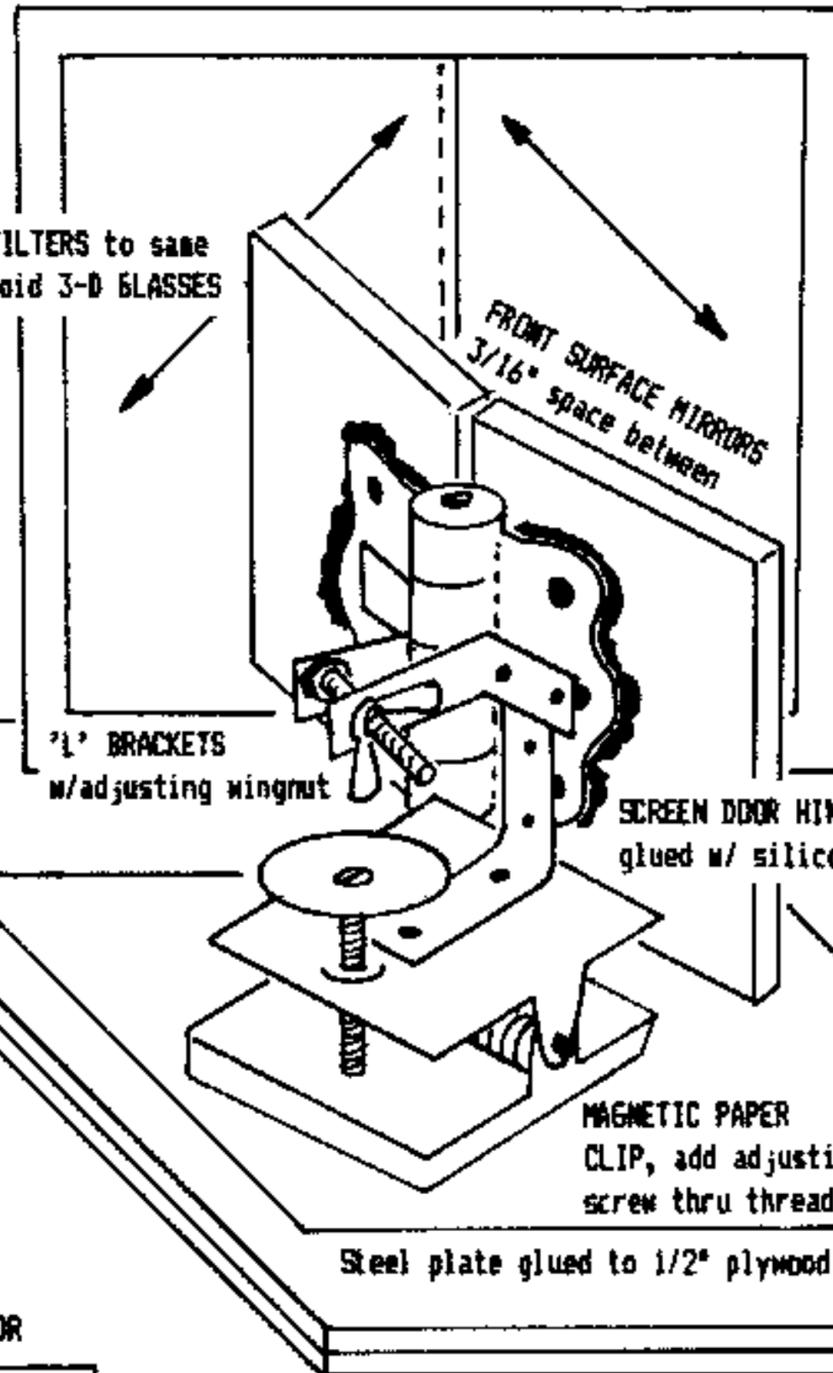
MAGNETIC BASE of CLIP allows
infinite positioning over
steel plate.

CARDBOARD FRAME
overlap FILTERS 1/8"



Match POLARIZING FILTERS to same
alignment as Polaroid 3-D GLASSES

SCREEN-DOOR HINGE & MAGNETIC PAPER
CLIP are spring-loaded, thus they
can be set at any angle with
adjusting screws.



FRONT SURFACE MIRRORS
3/16" space between

1" BRACKETS
w/adjusting wingnut

SCREEN DOOR HINGE
glued w/ silicon rubber

MAGNETIC PAPER
CLIP, add adjusting
screw thru threaded poprivet

Steel plate glued to 1/2" plywood base

SILVER SCREEN

images overlap completely

FILTERS split over images

PROJECTOR

Split image
centered over
MIRROR hinge

Carousel Projectors allow full
audio/visual applications
(Dissolves, Tape Synch, Multi-Image, Etc.)

Developed during Artist Residency
at The EXPLORATORIUM, San Francisco, 1976-1982
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