



La révolution iMac

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Une industrie conservatrice et un consommateur réticent

Le monde de l'informatique est en perpétuelle évolution. En effet, une compétition féroce oblige les différents manufacturiers à offrir des ordinateurs toujours plus puissants et moins dispendieux. Malgré que l'industrie de l'informatique ne cesse de se transformer, les révolutions y sont somme toute rares. Toutefois cette course à la puissance semble faire oublier aux dirigeants la nécessité d'innover. C'est ce qui expliquerait que l'industrie des manufacturiers d'ordinateur reste avec une conception très conservatrice de l'ordinateur. C'est d'autant plus vrai dans un marché dominé à 95% par une plate-forme souvent appelée Wintel¹. Les paradigmes sont importants et difficiles à modifier.

Le consommateur, pour sa part, perçoit souvent l'ordinateur comme un outil utile et puissant mais combien compliqué. Associé pendant plusieurs années à des tâches reliées au travail, le déferlement de la vague Internet permet de changer cette perception en faisant littéralement exploser les possibilités de l'ordinateur. De même que la télévision et le vidéo, l'ordinateur permet aujourd'hui une utilisation ludique et de divertissement. Monsieur et madame tout le monde a maintenant la possibilité de gagner un temps précieux dans la réalisation de certaines tâches. Ces nouvelles capacités ouvrent toutes grandes les portes du marché dit "consommateur", le secteur en plus grande croissance dans le monde de l'informatique. Voyant le potentiel de ce nouveau marché, la compagnie Apple entrepris de réinventer son produit vedette: le Macintosh. C'est ainsi qu'en introduisant un produit complètement différent Apple a réussi à redéfinir l'informatique à l'aube du 21^{ème} siècle.

L'innovation signée Apple

Apple, depuis sa fondation en 1976 est probablement l'entreprise la plus innovatrice dans le monde de l'informatique. Après avoir offert le Apple I, le premier ordinateur personnel en 1977, elle introduisit en 1984 le Macintosh, le premier ordinateur utilisant l'interface graphique. Puis en 1998, c'était au tour du premier ordinateur orienté réseau à voir le jour: Le iMac. Malgré cette capacité d'innovation, en analysant la période entre 1995 et 1998, on remarque que la compagnie Apple a eu énormément de difficulté à se positionner suite à l'introduction de Windows 95. Voyant la majorité de ses marchés s'effriter, la compagnie Apple ne savait plus comment se positionner. Cette indécision coûta très cher tant au niveau financier qu'au niveau de ses parts de marché. La confiance des consommateurs actuels mais surtout potentiels en fut aussi très ébranlée. Malgré cette situation, Apple possédait plusieurs atouts stratégiques tels son système d'exploitation, l'utilisation des processeurs PowerPC, un taux de loyauté de la clientèle inégalé ainsi qu'une marque et des produits avec une forte notoriété.

Un repositionnement nécessaire

Généralement les consommateurs ont toujours perçu le Macintosh comme un ordinateur facile à utiliser et convivial. Par contre, le positionnement des différents modèles ne répondait pas aux attentes de ceux-ci principalement à cause de leurs prix trop élevés. Des secteurs comme le graphisme et le multimédia restaient des châteaux forts de la plate-forme, vu la disponibilité de logiciels, la puissance mais surtout la facilité d'utilisation du Macintosh. Il ne faudrait pas oublier le secteur de l'éducation, qui grâce à des offres spéciales de la part d'Apple, est resté très fidèle au Macintosh. Pour ces utilisateurs qui considéraient l'ordinateur comme un outil de

¹ Union des processeurs Intel et du système d'exploitation Windows

travail, la différence de prix pouvait se justifier. Par contre, pour la majorité des consommateurs l'avantage d'utiliser un Macintosh ne justifiaient pas suffisamment le prix plus élevé. L'effet pervers de cette situation fut de positionner le Macintosh dans l'esprit des consommateurs comme un ordinateur destiné aux professionnels. Aussi, afin de réintégrer le marché des consommateurs, Apple se devait non seulement de présenter un produit qui changerait cette perception, mais d'attaquer son plus fervent compétiteur: Le PC. Pour ce faire, Apple présenta le iMac comme étant "l'ordinateur le moins PC" disponible sur le marché. Cette stratégie s'appuyait sur la perception de complexité du PC ou encore sur l'expérience souvent difficile des utilisateurs du PC. Afin d'éliminer toute ambiguïté au niveau du positionnement de ses divers produits, Apple sépara en quatre grandes lignes, sa gamme de produits. Le résultat fut une simplification de la gamme. Le iMac serait destiné aux consommateurs recherchant un ordinateur de table et le iBook à ceux recherchant un portable. Du côté du marché professionnel, les Power Macintosh G3/G4 occuperaient le marché des ordinateurs de table et les PowerBook celui des portables. Une telle stratégie diminuait grandement le risque de chevauchement entre les diverses lignes de produit et différenciait entre eux les produits Apple.

En quoi le iMac est-il révolutionnaire?

Simplicité et design

Apple a toujours été réputé pour la qualité du design de ses produits. L'Apple Industrial Design Group s'est toujours efforcé de créer des ordinateurs qui se différencieraient de la concurrence en s'attardant à l'harmonie et à l'ergonomie des appareils. Par contre, avec le iMac le but était de faire un objet qui redéfinirait les normes jusqu'à présent établies. Steve Jobs, CEO et co-fondateur de l'entreprise, avait une idée précise de ce qu'il recherchait comme design. Il voulait créer un style qui serait familier aux consommateurs, tout en étant futuriste, sans pour autant déranger. Le résultat fut un mélange d'un design inspiré des années 50 avec une touche futuriste sortie tout droit de la bande dessinée les Jetsons. Le fait de rappeler un jouet vise à amener le consommateur à laisser de côté les réticences habituelles face à l'informatique et à considérer le iMac davantage comme un jeu que comme un ordinateur. Évidemment, la forme attire l'attention mais les couleurs jouent aussi un rôle très important dans l'attrait que provoque le iMac. Celles-ci ont été spécialement sélectionnées parce qu'elles attireraient certains types de personnalisés. C'est ainsi que le choix s'arrêta sur des couleurs telles raisin, mandarine, citron vert, fraise et myrtille². L'utilisation du translucide permet pour sa part de créer un diversification des teintes de l'ordinateur selon l'éclairage de l'environnement. Aussi, le translucide / transparent permet de mettre à la lumière du jour les composantes de l'ordinateur afin de lever l'aspect mystérieux de celui-ci et de rencontrer la curiosité des consommateurs. Pour sa part, la taille de l'ordinateur a aussi été étudiée. L'objectif était de réaliser un design qui serait le plus simple possible et qui occuperait le moins d'espace. Pour atteindre un tel objectif les designer devait restreindre au minimum les composantes. C'est une des raisons qui explique la disparition du lecteur de disquette. D'autres modifications plus subtiles augmentent la convivialité du iMac telles le déplacement des connexions de l'arrière de l'ordinateur vers le côté visant à faciliter l'accès à celles-ci. La disparition du ventilateur dans les derniers modèles permet d'améliorer l'environnement de travail de l'utilisateur en réduisant le bruit ambiant. Une souris et un clavier de petite taille quant à eux permettent de réduire l'espace occupé au niveau de l'aire de travail. C'est en constatant l'attention portée à chacun de ces détails que l'on comprend en quoi cet objet dépasse la conception que l'on se fait habituellement de l'ordinateur.

² Voir annexe pour plus d'informations sur les couleurs

Plus simple qu'un Macintosh

Un autre objectif que poursuit Apple est de simplifier à un tel point l'utilisation de l'ordinateur qu'il devienne aussi simple à faire fonctionner que le téléviseur ou le téléphone. Tout en préservant le maximum de polyvalence, le iMac s'inscrit dans ce processus. Il faut savoir que le MacOS définit déjà la norme en terme de facilité d'utilisation et de convivialité au niveau des systèmes d'exploitation. Cependant, certaines technologies utilisées au niveau des ordinateurs pouvaient encore compliquer la vie aux utilisateurs tel la norme SCSI, ADB ou encore les ports série. Heureusement les technologies USB et FireWire ont permis, de par leurs caractéristiques, le remplacement de l'ensemble de ces standards tout en offrant une facilité d'utilisation et une polyvalence inégalée. Le grand avantage de ces technologies réside dans l'élimination presque totale du processus de configuration au niveau des périphériques et du MacOS.

Une architecture orientée réseau

Le iMac étant avant tout destiné à une utilisation réseau, il se devait aussi de présenter une polyvalence inégalée sur cet aspect. Sachant que près de 95% des internautes se branchent via modem à Internet, la présence d'un modem 56k s'avérait essentielle. De plus, l'augmentation de la popularité des liens rapides ou encore des réseaux locaux demandait inévitablement la présence d'une carte réseau Ethernet 10/100Base-T en série. Quant à ces options, elles n'ont rien d'innovatrices car elles sont depuis longtemps offertes sur les Macintosh. Là où le iMac se démarque, c'est au niveau de la connexion sans fil³ et de l'architecture Client / Serveur qu'il permet. Dans un premier temps, Apple a introduit une technologie du nom de AirPort, développée en collaboration avec Lucent Technologies, qui permet de partager un lien du type modem ou encore haute vitesse via un réseau sans fil. Il est à remarquer que l'utilisation du sans fil permet à l'utilisateur de simplifier grandement l'implantation de réseaux locaux comparativement à l'utilisation de câbles. Ainsi, une autre caractéristique qui permet au iMac de se démarquer réside dans sa capacité à démarrer via un réseau sans avoir recours au disque rigide interne. Un tel système client / serveur facilite ainsi la gestion du parc informatique et permet d'obtenir un environnement client spécifique peu importe le poste de travail utilisé. À plus long terme, il ne serait pas surprenant de voir un tel principe apparaître au niveau d'Internet.

De solides performances

Même si c'est d'abord par son style et son design que le iMac attire l'attention, ses caractéristiques techniques ne le laissent pas en reste par rapport à la compétition. Il est à retenir que le iMac est propulsé par un processeur PowerPC G3. Ce processeur de toute dernière génération est très puissant, consomme moins d'électricité et chauffe moins que le Pentium. Ce sont ces caractéristiques qui ont permis de développer un design sans ventilateur. Aussi, l'ajout d'une carte vidéo ATI accélérée 2D/3D permet d'obtenir d'excellentes performances tant dans les applications 2D que dans les jeux 3D. En ce sens, le iMac se compare avantageusement à la compétition au niveau de ses caractéristiques techniques tout en étant offert à un prix de base de 999 \$ US.

Une promotion visant à changer l'importance des attributs

En offrant un produit complètement différent, Apple se devait de modifier la pondération de l'importance accordée à certaines caractéristiques d'un ordinateur. Or, l'on sait que le consommateur s'attarde habituellement à

³ Disponible sur la seconde génération de iMac

deux caractéristiques. Dans un premier temps, il regarde généralement le prix, puis il accorde habituellement beaucoup d'importance aux nombres quantifiant les caractéristiques techniques. Avec le iMac, Apple visait à modifier l'importance de ces deux attributs en introduisant deux autres aspects, soit la facilité d'installation et d'utilisation ainsi que l'importance du **style et du design**. En mettant l'emphasis sur ces critères, Apple était en mesure de mettre en valeur le iMac par rapport à la compétition du monde PC. C'est pour cette raison que la première campagne publicitaire insistait sur deux thèmes, soit l'installation rapide de l'accès Internet (Rapide, simple, moins cher) ainsi que la comparaison du iMac avec l'environnement PC. La seconde stratégie qui visait à se différencier de l'environnement Wintel s'explique par le fait que l'augmentation de la part de marché du Macintosh passe avant tout par la conquête des premiers acheteurs d'ordinateur ou encore des utilisateurs Windows désabusés.

L'impact du iMac sur Apple et les manufacturiers d'ordinateurs.

Évidemment Apple risquait gros en introduisant un produit révolutionnaire et innovateur dans une industrie très conservatrice. Cependant, Apple a gagné son pari avec le iMac. La réponse des consommateurs en fait le plus grand succès commercial de la compagnie avec près de 4 millions de iMac vendus à travers le monde. En plus d'augmenter les ventes d'ordinateur Macintosh, le iMac a permis d'obtenir d'excellents résultats financiers, de redonner confiance aux producteurs de logiciels en augmentant la part de marché du Macintosh à près de 10%. D'ailleurs le profil des acheteurs démontre très bien la réussite commerciale du produit. En effet, avant l'arrivée du iMac les acheteurs de Macintosh étaient généralement des personnes qui renouvelaient leur équipement Macintosh. Par contre, selon les chiffres le iMac attire une toute nouvelle clientèle chez Apple. On estime que 30% des acheteurs de iMac sont des personnes qui achètent pour la première fois un ordinateur et 14% sont d'anciens utilisateurs de Wintel, ce qui se traduit par 44% de nouveaux utilisateurs de Macintosh. Quant à l'accès à Internet, 62% ont eu accès à Internet dès la première journée d'utilisation de leur iMac et 93% utilisent régulièrement Internet. 66% pour leur part n'ont considéré aucun autre ordinateur avant de faire l'achat.

Le succès du iMac a été suivi d'un regain de confiance envers Apple et a poussé plusieurs utilisateurs à renouveler leur parc informatique. Ces renouvellements combinés à l'ajout de nouveaux clients a fait en sorte qu'au premier trimestre 2000, les ventes de la ligne de produits destinés aux consommateurs représentaient près de 70% des ventes dont 51% sont des ventes de iMac. Avec une marge bénéficiaire de 26%, une des meilleures de l'industrie et une gestion de l'inventaire améliorée grâce à une ligne de produits simplifiée, la profitabilité de l'entreprise s'est accrue grandement. De plus, autant les investisseurs ont boudé Apple pendant bien des années sur le marché boursier, autant aujourd'hui le titre d'Apple se transige⁴ à quatre fois le prix qu'il était avant l'introduction du iMac. Au niveau de l'industrie plusieurs compagnies ont développé des périphériques s'agencant avec le design du iMac. On a même vu des compagnies cloner le concept du iMac avec des ordinateurs monoblocs et en couleur. Une telle réaction de l'industrie est la preuve de l'impact majeur qu'a eu l'introduction du iMac. Malgré une part de marché faible, l'innovation du produit a démarré un mouvement de créativité chez les fabricants de matériel informatique jusqu'ici inégalé. L'arrivée du iMac a fait prendre conscience que le consommateur était intéressé à obtenir un produit qui serait plus qu'une boîte rectangulaire beige ou grise.

⁴ Février 2000

Le mot de la fin

Comme nous avons été à même de le constater, le produit joue généralement un rôle primordial dans la réussite d'une entreprise. Apple en introduisant un produit innovateur et unique en son genre est parvenu à se repositionner comme un leader de son industrie en brisant les paradigmes jusqu'ici établis. Un changement radical dans la stratégie de produit permet aujourd'hui à la plate-forme Macintosh de redevenir compétitive. En introduisant de nouveaux critères de choix dans le processus décisionnel du consommateur, Apple a su positionner ses produits dans des créneaux jusqu'ici ignorés par les autres manufacturiers d'ordinateurs. En profitant des faiblesses de la compétition et en tirant pleinement parti des forces jusque là inexploitées, Apple est passée d'une entreprise déficitaire à une entreprise rentable et excitante. L'avenir nous dira si Apple a entre les mains un concept gagnant à long terme ou si le succès actuel ne se résumera qu'à une mode passagère. Par contre une chose est certaine, l'introduction du iMac restera probablement un événement qui aura marqué grandement l'informatique au vingtième siècle.

Médiagraphie

Livres

Robert, Michel et Devaux, Michel: *Stratégie pour innover*, Paris : Dunod, 1996

Millier, Paul : *Le marketing des produits "high-tech"*, Paris : Éditions d'Organisation, 1989

Chapelet, Bernard et Mangione, Cataldo. *Le lancement d'un produit nouveau*, Paris : Éd. d'Organisation, 1994

Kotler, Philip, Filiatrault, Pierre et Turner, Ronald E., *Le management du marketing* 2^e Ed, Gaëtan Morin Éditeur, 2000

Site Web

Apple Computer, Inc.

<http://www.apple.com/>

<http://www.apple.com/imac/>

<http://www.apple.com/imac/imac99/>

<http://www.apple.com/airport/>

What iMac Color Are You

<http://www.asia.apple.com/pressreleases/1999/9901/colour.html>

The Ive League: The Designer Behind the iMac

<http://www.machome.com/features/Ive.html>

Slow Modems Still Dominate Home Internet Scene

http://cyberatlas.internet.com/big_picture/hardware/article/0,1323,5921_277191,00.html

Annexes

Annexe I: What iMac Color Are You

Five New Colors for Five - Different Personalities

Carlstadt, New Jersey - January 18, 1999 - In a demonstration of the euphoria signaling the new millennium, Apple's new flavorful iMac computers have taken computer hardware from the back corner of the office to design centerpiece. The new computers come in a fiesta of mouth-watering colors: blueberry, strawberry, tangerine, grape and lime. What does the iMac color you choose reveal about you?

According to Leatrice Eiseman, executive director of the Pantone Color Institute and author of *Colors for Your Every Mood*, "The colors of the new iMacs represent the current demographic of who's buying computers. These are innovators and young-minded people who are open to the use of color. Of all the new colors, blueberry and strawberry are the standard brights that will have the most general appeal. Even as tiny infants, we are drawn to bright blues and reds. These two colors are always successful. Tangerine, grape and lime provoke more attention and will appeal more to the trendiesâ who think of themselves as nonconformists."

"The fashion runways have been flooded with color this year. Designers are using color more than ever as the hope and prosperity of the new millennium draws near. This fascination for flashy color is trickling down to interior design and consumer products," said Lisa Herbert, vice president of worldwide communications for Pantone, Inc. "It's no surprise that these bolder looks are beginning to influence the technology industry as well."

In an industry surrounded by the use of a traditionally conservative color palette of beige, black and gray, the new iMac colors offer consumers the opportunity to express themselves and bring an element of personality to their work space:

Blueberry: Constancy and Truth Forever associated with sea and sky, blue is the favorite color for a majority of the population, 35 percent in the U.S. Blue emerges as tender, soothing, cool, passive, secure and comfortable - which inspires calm, confidence and harmony, a sense of control and responsibility. Most people respond to blue as credible, authoritative, basic, classic, conservative, strong, dependable, traditional, confident and professional. However, the electric blues share the same characteristics with a spark of excitement.

Blue people are sensitive to the needs of others and form strong attachments. They are cool, confident and trusting with a strong need to be trusted and are therefore deeply hurt if their trust is betrayed. They aspire to harmony, serenity, patience, perseverance and peace. They think twice before acting out, are generally conservative, even-tempered and reliable. Because of their highly developed sense of responsibility, blue personalities must be careful of perfectionist tendencies that may make them unrealistically demanding.

Strawberry: Power and Strength Red elicits the strongest emotions in every culture. Studies have found that brain function, as measured by electrical responses, is more effected by red than any other color of equal intensity. Throughout history, red has signaled excitement, dynamism, danger and sex. Red is intense, passionate, dramatic, energetic, aggressive and daring. It is the second most powerful color, following black.

People whose favorite color is red have a zest for life; they are, quite literally, "movers and shakers." Red lovers are achievers, intense, impulsive, competitive, energetic, daring and aggressive. They are exciting, optimistic, animated people, leaders who like to be the center of attention. Routine drives them crazy. They crave new things and new experiences. They are assertive and can therefore be moody, bossy and fickle in the pursuit of new challenges.

Tangerine: Radiant and Hot Of all of the colors of the spectrum, orange is probably the least understood and the most maligned. It is perceived as the hottest of all colors - even more so than red because it takes its heat from two radiant sources, yellow and red. The brightest tones of orange are seen as gregarious, fun-loving, high-energy.

Lovers of this color work and play hard, are adventurous and enthusiastic. They are good-natured, expansive and extroverted with a disposition as bright as their favorite color. They like to be with people, their ideas are original and they have strong determination. Success in business can come easily to this gregarious, charming person.

Grape: Passion and Magic The rainbow's most complex color and so are the people who prefer it; artists, designers and performers -- nonconformists. Highly creative types enjoy the uniqueness inherent in this extraordinary hue. Purple balances the excitement of red with the tranquillity of blue, often producing conflicting traits. It has an aura of mystery and intrigue

and has long been associated with royalty. There are many components of this complex color, and therefore, many meanings.

People who like to consider themselves different from the common herd or unconventional often prefer purple. The purple person is enigmatic and highly creative, with a quick perception of spiritual ideas. Purple is also associated with wit, keen observation, supersensitivity, vanity and moodiness. The purple personality can be secretive, so that even though this person may seem to confide freely, their closest friends might never know their innermost feelings.

Lime: Natural and Pleasant The sight of green is inexorably linked to a sense of smell. The word "green" comes from the same root as "grow," so green symbolizes that which grows as well as the regeneration and renewal of life. Green generally imparts a refreshing, cool and collected feel.

People who favor green tend to be stable, balanced types. This is the good citizen, concerned parent, involved neighbor -- the joiner of clubs and organizations. "Green people" are intelligent and understand new concepts, and although they are more inclined to do what is popular and conventional rather than take risk with something new, lovers of bright citrusy greens will forge ahead.

Pantone's influence stretches far beyond its solutions for the graphic arts and printing industries. The company creates real-world color standards and languages for a variety of other industries, where the application of color is critical, including media-specific color systems for textiles and plastics, working with materials for interior design, architecture and high fashion. The Pantone Color Institute[®], which studies the psychological as well as physiological aspects of color, tracks and predicts color trends and provides color consultation services to companies for product development, packaging, brand identification, fashion and interior design.

Sources: <http://www.asia.apple.com/pressreleases/1999/9901/colour.html>

Annexe II: The Ive League The Designer Behind the iMac

by Alan Stafford, Anne Feld, and John Poultney

On Steve Jobs's first day back at Apple last year, he and his star industrial design staff began working on an inexpensive, cool-looking consumer computer. The result of their efforts is the iMac.

Jonathan Ive, Apple's vice president of industrial design, got back from vacation the same day Jobs took over. Before the day was out, the planning for the iMac had begun. Now, a year later, the iMac is a reality, and Ive is emerging as an unlikely celebrity.

Unlikely because when most companies announce breakthrough products, their CEOs get all the attention. Jobs's willingness, even preference, to avoid the limelight has shifted focus to the soft-spoken Ive, where in this case it probably belongs. Thanks to the industrial design team, Apple is now not only making computers, it is also setting fashion trends.

More eye-arresting designs are forthcoming; here, Ive gives some insight into what Apple has in store.

Feld: Can you tell us about your background?

Ive: Sure; I was born and grew up in London. I was a partner in a design group in London, and Apple in the early '90s asked me if I'd like to be a design consultant, so I started to work with them. And at the same time I was designing ceramic stuff for bathrooms, and washbasins, and toilets, and bathtubs; and televisions for huge Japanese consumer brands. So, I came from a very broad background of stuff, and I started looking at Apple, and I saw it in a way that I had never seen before. So I started working as a consultant, and I enjoyed working with Apple and I found the challenge so intriguing -- it was so different from doing sinks, which were so beautiful, to me, and modeling stuff in ceramic -- and I decided to accept an offer in 1992.

Feld: Who constitutes the design team?

Ive: It's changed; it's almost unrecognizable from 1992. A couple of the guys who have turned into stars are very much part of the team, but we try to keep the core design team very, very small. It's a happy team. That's how we can actually cope with volume and still keep the core team small and tight -- and work very, very collaboratively. It's very much a team effort.

Poultney: What challenges did you run into designing the iMac?

Ive: Well, [we had to create] really, really abstract design models, you know. Steve had a very clear vision about what he thought it should be, and there were some really weird paradoxical things; one was that he wanted it to feel vaguely familiar, like somehow it resonated in some way with a memory of something you've sort of seen, somewhere, but you're not quite sure. But also to be something that was really future, because ultimately you want it to be something that people felt really comfortable with, but was really new. That's difficult because generally new things -- by definition, their very newness makes people feel uncomfortable.

We didn't want it to look like a computer. [But] we didn't want it to look like a television. The problem is that there's been more than a half dozen of those things designed in the past three years, so that was obviously challenging. So it was just a very, very difficult set of goals, I guess, to develop.

Stafford: You said you didn't want it to look like something familiar, but when I first saw it I thought of a '50s Nash Metropolitan; others said a BMW Isetta.

Ive: Right; I've heard about when other people have talked about something from Barbarella [Jane Fonda's psychedelic tour de force]. And that's the great thing, because if you go after something specific, it's only going to be as relevant as that one thing is to a few people. That's what made it difficult: It would have been really easy if we had just gone to our favorite '50s thingy, and improved on that. That's what made it difficult, trying to, in vague ways, reference those things, and you do it through just the ways that you treat the form and approach the details.

Stafford: But people don't usually push the looks.

Ive: I think the biggest thing between Apple customers and Wintel customers is, Apple customers do, more so.

It strikes me as strange that the emotional content of objects that are way less important in our lives is way more [important] than it usually should be. Think of it in the sense of television: I can't think of two more polar opposites -- you know, this thing [the computer] is constantly changing, it goes from being a typewriter to a video-editing machine, from a music creation center to a communications terminal. The interaction with the user is incredibly dynamic. The television dumps content on you, and is one of the most passive relationships.

So I think there is enormous opportunity that if we get it right -- when we start to get the emotional content right -- I think it's going to permanently change the purchasing criteria. I really do. Like we've seen in other industries that have matured, I just think that ours hasn't [matured] because it has a vested interest in perpetuating the old purchasing criteria. That's one of the reasons our industry in many ways hasn't fulfilled its promise.

Poultney: Were there other designs you considered?

Ive: Fairly early on we felt -- given that one of the things we wanted to do was to make it as small as possible -- we wanted to make it really simple, really small. As we were wrestling through this stuff, we looked at about ten different directions. They were all very different, and we modeled [all of] those. But this one was clearly the simplest, the least contrived. The least gimmicky. Most of the [design] stuff is there, but for very good functional reasons. It's probably a lot more refined than maybe is apparent because we're still getting over that bright blue.

Stafford: Describe the design process. Is it on paper first, then models. ...

Ive: The most important bit of the process ... that's interesting; that's the first time anyone's asked about process, and I think it's really, really interesting and important. Yeah. What's most important is talking about it and trying to understand what you're trying to do. I think the early debate stuff is really important. From that we go to some drawing, just some drawings on paper. And from that we go to Alias|Wavefront -- it's an interesting application. It was developed primarily for movies, like special effects; the studios were the first anywhere to adopt it as a design tool.

Poultney: Are you using Silicon Graphics machines for that?

Ive: Yes, we're on SGI boxes. It's really super-high-end.

Stafford: Anything on Macs?

Ive: Yes, we do tons of CAD on Macs, these really serious, massive manipulation services.

We have this set of data that defines the surface, and then that data we use to cut models. And as we refine it, we manage to roll it [the data] back in, and ultimately that data is what cuts the steel to make the molds. It's these multi-, multi-million-dollar tools that are being cut from data we created. Stafford: What are the models made of?

Ive: The models start off as foam. When you've got the surfaces and volume right, you start making molds and then cast it, because that's the only way to do the translucency. However, because of the size of these parts, you can't get a piece of clear acrylic that big. So, for us, from the design perspective, the translucency has been enormously challenging. The mold used to take three days to make; now it takes three and a half weeks. It's just had a huge impact on our processes.

Poultney: What does the translucence represent to you? I've seen it in a lot of products for the Mac.

Ive: Plastic is an incredible material, and we only exploit a small percentage of what it can do. You can do a lot more with it than we've traditionally done, although there was a spate ... almost thirty years ago, loads more was being done.

There are some products where the form, the function, and the identity are all one and the same, like a cup, for example, or a pair of scissors; its form and its function mean that it's a pair of scissors, and you understand because it's mechanical.

The problem is, with the stuff inside a computer, there's no comprehension -- it doesn't help you understand what it is. Generally, we understand computers now as a beige box with a television on top sort of thing. One of the weird things is that what objects become or what they're going to mean is defined by the designer, so we could make it look like a dog, or we could make it look like a hair dryer.

It seems so facile, but it's really an important point: Our understanding of these objects is really down to the design of them. What we've been trying to do is understand, well, fundamentally, What is a computer and what can it do? Which got us into this whole bit of, It's so many things. Very few products in the entire world can one second be one thing and another second be something very different.

The thing with translucency that we really liked was that it constantly changes. This blue is a totally different color depending on where the sun has been today, what lights are on, and where you're standing.

Photography has been really, really difficult, because what is the blue that you want it to be? You can hold the color above a piece of white paper and light it that way for one blue; it changes constantly. We tried to reflect that in the form of it as well: It sort of appears as if it has just arrived, and hopefully it's just off somewhere else.

Someone said, How about designing it specifically for the kitchen, or specifically for the lounge, or the bedroom? One of the ways around that is, when we're at home, we don't change our clothes depending on whether we're in the kitchen; we don't put our kitchen clothes on. I think if things move enough, you don't assume that they have to match.

Stafford: Could you explain why the front isn't translucent?

Ive: One of the things we did try to do is make the front quite restrained; you can't see anything [inside]. It actually is still translucent, but we put an opaque material behind it as well. So we did want a material that had depth to it, because it would have just jarred so badly if it was absolutely translucent. But from the front, you can't see any bright, screaming logos when you're working. Probably the loudest things on the front are the speakers and the button, but we had to pay attention to the pragmatic function of it. Moving the connectors up from the back was great, because we wanted the back to be as nice as the front. The back is really a stupid place for connectors, though it's easier for designers and engineers. Putting them on the side is much more difficult for us to do, but it's much easier for users.

Feld: What about the lack of a floppy drive?

Ive: There were a number of things where, if you're going to move forward, you have to change the design parameters. Consistent feedback has been about size and weight, so if you want to make things smaller, it's just the basic laws of physics that you have to take some things out. At some point, if you're committed to innovating and breaking through, you have to make some decisions that you know some people are going to find difficult for a while. But we also knew there were people like Imation, and there will be solutions from them; if that's what you wanted, you could do that. Unless we do things like that, the industry's going to stagnate, and we're going to be designing to serve some really bizarre criteria.

Poultney: Speaking of design criteria, do you work around engineering design or vice versa?

Ive: Actually, this may be a way to [Image] define the old Apple versus the new Apple: Originally, a very early real concern at Apple was to try and design a product that people really wanted, figure that out, then work out how you could do it. Then the company went through this time when it said, Here is the technology; let's put something on top of it and figure out who we can sell it to.

This new stuff marks a return to, well, Who are the customers we're designing for? What do they want it to be? And figure that out and design it. Then, try to design stuff that's actually going to be able to deliver the capability within a package. That's a fluid point in the process, where you can adjust and change things. I think that's really important; otherwise you just get into packaging, sort of commodity stuff.

You can get into this weird game where you're using design just to try to differentiate, rather than add value. I think you're going to see a bunch of people, like Intel, into the differentiation game. Because the Wintel platform, it's an Intel chip and similar [to competitors]. You can compete on just price, but price is not a long-term sustainable thing just to compete on, so everybody is trying to find their bit of difference.

It's a little scary; a lot of people are going to see [the iMac] and interpret this as, Oh, this is a bright blue computer, point of sale, look out! Difference is moving! Hadn't we do an even brighter orange one? I am worried that there will be just a huge spate of people taking their existing tools and design and shoving them into some translucent orange thing.

Stafford: You've had three translucent plastic designs recently. Is that one of the trends that we'll see in upcoming products?

Ive: I can just point to some of the things -- the PowerBook, that's not translucent. We are working on so many things. That's why I'm so psyched; I'm enjoying working on all of them. I think there's an implication ... I mean, the iMac is [generating] this interest, but I think the broader implications are more exciting.

One, the implication is that the industry is interesting, but also for us at Apple, [the iMac] as a product reflects a bunch of things about not only the design group but a company: one that has got itself sorted out, has regained a sense of how good it is, where it's going. It's comfortable innovating again, instead of running away from innovation because it's so risky. Which is, well, ironic for Apple. The company seems healthy and comfortable when it's leading, and is in a new ground and space. It's just appalling when it is trying to compete to other people's criteria and agenda; it just screws up grandly when it tries to do that.

Stafford: Some people bring up the old Acer green-and-purple computer as an example of a design gone awry. What do you think of it?

Ive: I think the difference about the iMac is ... that it's blue. It's one of the easiest things to talk about, but [the iMac] is so much more -- it's fundamentally different in terms of levels of integration, and the size, and what we were trying to do.

The thing is, if you try to take commodity components and try to just put some different squiggly shapes over them and use different colors, again, that's about differentiation, about being different, but for the hell of it. When that's your goal, you just get loud stuff like that.

I think the original Macintosh was totally, totally different, but it was trying to do something very new, not for difference's sake, because it was in new ground. Personally, I think that's what you have to be careful of, because otherwise, the stuff ages really fast, and really painfully.

Stafford: But the original Macintosh was a beige box.

Ive: Yeah, I know! But it was a beige box 20 years ago.

Poultney: When I sat down next to it for the first time yesterday, I thought it showed evenness and an organic quality, and elegance; it felt like it would be easy to work with.

Ive: One of the neat things that's really lovely to see is people at the show [Macworld Expo], just touching it. Almost without exception, even if they were having other conversations, they were petting it on its head. Another thing is, they were like, smiling. I'm serious; that's a big deal. People at trade shows, they don't generally smile very much.

Poultney: Steve was talking about simplifying the product line. By simplifying it, does that necessarily mean that every design will have to have the latest and greatest stuff?

Ive: That's a great point. That's something we're trying to figure out. The problem is, if a consequence of simplification is that you have to be generic, you can't do that. One of the things that we absolutely think is necessary with simplification is, the goals have to be specific. It's not just a PowerBook.

Feld: Who were your design influences? Is there a design period in particular with which you align yourself?

Ive: No, not really. Not up to this particular period. Generally, any period where there was a design movement that had great integrity, there are certain things that I really love. But no, I couldn't say there was one in particular.

I think lately they've tended to be characterized by people who are wrestling with the stuff we're wrestling with. They're trying to figure out, What is this, what are these objects, what should they mean. They're often doing groundbreaking stuff with materials, and we're just beginning to understand, for example, what you can do with plastic. There are some really interesting opportunities with future stuff.

Stafford: How do you think the iMac will hold up in the next 20 years?

Ive: There are still people I talk to who still have their Color Classics because they liked them, and everyone thought that was weird and cute, and trendy-groovy at the time. And the 500-series PowerBook, back then, people were lugging this obsolete brick around, just because the stuff after that was just so crap -- which it was -- from a design perspective.

I'm hoping it's groovy, but not in a gimmicky way. It's one of those things where I almost feel like I should apologize for it, because often an underlying question is, Ah, well, it's so transient, or flippant. I don't want it to be that, but I want it to be sort of relevant, and inviting. But I don't know what it'll be like in 20 years.

Stafford: What do you think are the design highlights of the iMac?

Ive: I like the simplicity of it; I like the fact that it's very reasoned. The details, I think, reference people: The handle, it reminds you of "hand"; and the way that you have the door to the I/O connectors is, you just have a big hole there, and a rubber piece around that, so that you can put your finger in there and pull it out. It's an almost simplistic, almost childish way. And I think that's very, very human, very personal, and there are a lot of details like that, like the way that you pull the foot out in front. It's very simple. You have to be fairly brave to do things like that, though it's very easy to do, those little techie features. The labels.

Stafford: Did the mouse ever light up?

[Image] Ive: That was really interesting; I was at that shoot when we did that, and were shooting it on plexiglass with light under it, and somebody by accident had put a light on somewhere else that made the mouse light up. When it was being edited, there was a bit where Phil [Schiller, vice president of worldwide product marketing] was talking about lighting up people's faces, and we came across this bit where the mouse lit up, and that's what happened.

Stafford: You never intended for it to light up?

Ive: I think it's an awful idea, but that's the thing about translucency. If there's a strong light source somewhere, it really does light up. People are telling me it absolutely lights up in the dark. And it doesn't, but because the materials are unusual and new, they do strange things. I've been around it for a long time now, and I am still constantly surprised by things that I didn't notice before and how I react to things.

Stafford: Last question: What's your favorite color?

Ive: I am afraid I can't really give you a straight answer on the color front -- its just too complicated!

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