



**Something Old,  
Something New,  
Something Green**

*How to Choose Between Brand New, Cloned,  
Newly Remanufactured, Refurbished/Used,  
or New Alternatives*

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## Introduction

As an invention, the office cubicle has some serious mileage behind it; almost half a century since its introduction, it shows no sign of going out of style.

The original designers of the office cubicle were surprised by its longevity - by the time the first “Action Office” made its way into offices in 1968,<sup>1</sup> a couple of historical events ensured the office cubicle’s place in the modern workplace for decades to come.

Two things happened simultaneously in the 1960s: the rising tide of white-collar workers and the increasing cost of office real estate. Both events served to make the office cubicle - then a disruptive technological advancement to the traditional free standing office furniture - a logical and compelling alternative for office planners looking to accommodate both their workforce and their budget.<sup>2</sup>

Fast forward to the present day: office cubicles (also known as “systems furniture”) are a significant part of the office furniture world, accounting for about \$2.27 billion of office furniture sales in 2010, or about 27.4% of that year’s \$8.3 billion total in office furniture sales, according to historical data compiled by the Business and Institutional Furniture Manufacturer’s Association.<sup>3</sup>

So how was the humble office cubicle able to solve office planners’ cost and workforce problems so efficiently – transforming it into the ubiquitous presence it has today?

## The Versatility of the Modular Office Cubicle

*mod·u·lar* \məjələr\ (adj) constructed with standardized units or dimensions for flexibility and variety in use.

The versatility of modern systems furniture is fully responsible for its indispensability in today’s office. In the 1960s, facility managers discovered that modular cubicles took care of their cost and workforce problems in one stroke. From then until today, facility managers continue to appreciate office cubicles’ ability to adapt to varying situations, job functions, and office requirements.

Modular office cubicles offer five benefits:

- **Adaptability.** Office cubicles can be reconfigured to serve a variety of job functions, allowing facility managers to provision workspaces for employees in multiple departments using a variety of systems furniture components.
- **Modularity.** The modularity and component driven design of systems furniture offers relative ease in assembly, disassembly and storage. Cubicle components can be stored for reuse or repurposed when circumstances require. As a company’s office furniture needs change, the modularity benefit of systems furniture pays dividends.
- **Customization.** The ability to adapt to different needs makes office cubicles invaluable for today’s fast-changing workforce. Office cubicles can be configured to different pay grades and different functions; even if

call center operators and vice presidents have very different needs, their personal workspaces can be designed and specified using different components from a single line of systems furniture.

- **Life Cycle.** Office cubicles permit managers to mix and match existing office cubicles with new product from the original or clone manufacturer. As a workforce grows, facility managers can generally add to existing systems furniture easily without worrying about incompatibility or obsolescence.
- **Aesthetics.** From the perspective of an interior designer, modular office cubicles also simplify the problem of office interior aesthetics. Designers who want to create a unified look across a single workplace, from the executive office on down to the rank and file, can use a single systems furniture product line to create a unified yet distinctive look across the enterprise.

In the following pages, we're going to explore the different types of office cubicles, the attributes of each type, and the advantages and disadvantages of purchasing each type of office cubicle for one's workplace.

## Brand New Office Cubicles: Branded or Cloned?

*new* \new\ (adj) having recently come into existence.

For the majority of office facility managers employed by the world's largest companies, the problem of where to purchase their systems furniture is a no-brainer. "The most popular brands from industry titans: Steelcase, Knoll, Haworth, and Herman Miller," answers Aron Groner, CEO of systems furniture provider Cubicles.com. "Many architects and designers specify these brands because of their associated 'cachet'. It's similar to the perception that often drives sales at Mercedes, BMW or Lexus."

Other less recognizable brands such as AIS, Trendway, Tayco and Maxon occupy the mid-market segment for office cubicles. "These mid-market companies while lesser known nevertheless offer product that is on par with the big boys." says Groner.



Branded cubicles win in the perception game: these brand-new, brand-name products have a cachet that, for many facility managers, justifies their relatively higher price. Large companies that have the budget to go all-brand-name may enjoy a number of tangible benefits:

- Dedicated sales and design team
- Latest models and product lines
- Product line tested and approved by standards bodies like the Underwriters' Laboratory (UL) and Occupational Safety and Health Administration (OSHA)

Budget limitations may compel some facility managers to compromise on one or more of these benefits. "Cloned" or generic office cubicles are increasingly becoming an option for these budget-minded facility managers.

**clone** \klōn\ (*noun*) one that appears to be a copy of an original form.

Like makers of generic prescription drugs, clone fabricators take advantage of expired patent protections on popular classic cubicle lines, manufacturing their own systems furniture to the same specifications.

Clone fabricators focus only on a few brands and models. The most popular cloned cubicles are modeled after Steelcase's Avenir; and Etho Space and AO2 systems, both from Herman Miller. The AO2 is by far the most popular clone model: "It's the simplest of systems - the beauty is in how it was engineered," explains Groner. "The Action Office line is one of the most durable, sensibly-designed and engineered systems in the market."

Such clones appeal to facility managers handling offices with existing lines of matching brand-name cubicles. Cloned cubicles can be purchased at a significantly lower price point compared to the original, and because the clones use similar specs to the products they imitate, the cheaper clones will integrate with an office's existing stock of original office cubicles... but only up to a point.

Jay Bryson, Director of Sales for Richmond, Virginia-based office cubicles remanufacturer Open Plan Systems, points out that clones are "not required to meet 100% compatibility," which gives many clone manufacturers "the flexibility to cut cost at every corner. A clone overhead storage unit, for example, does not have to match the OEM (*Original Equipment Manufacturer*) if there is an opportunity to cut cost."

These clone systems are typically manufactured overseas, in China, Taiwan, or Canada. The units are built to the original manufacturer's specifications, but without using originally specified materials. Fabric, laminate and electrical components are generally sourced locally, and may not meet minimum standards set by U.S.-recognized standards bodies:

- The **National Fire Protection Association (NFPA)** governs the permissible flammability of materials used in office cubicles<sup>4</sup>
- The **Underwriters Laboratory (UL)** sets a minimum standard for the reliability of cubicles' electrical components<sup>5</sup>
- **Greenguard** ensures that products used in office environments meet stringent chemical emissions standards<sup>6</sup>

For facility managers who are considering cheap office cubicles for their workforce, safety should be a major concern. If the lower cost of such cloned cubicles comes at the expense of Greenguard, NFPA or UL oversight, facility managers who buy such cubicles are possibly playing with a significant future risk.

The offshore manufacturing bases of most cloned cubicles add to another significant downside. "Expansive product offerings are difficult for clone manufacturers to support," explains Bryson. Given the long distance between the clone factory in China and the sales office in the U.S., "stock keeping units must remain limited to provide on-hand inventory and price-point. Clones typically provide less component options, less fabric/paint/laminate options, and less lead time flexibility," Bryson says.

It's important to note that these concerns do not apply to *all* cloned office cubicles. For instance, the quality of clones imported from Canada often fall within the ballpark of new cubicles manufactured in the U.S. However, buyers considering clones need to do extra research and ask the right questions prior to purchase, all to ensure that they're purchasing quality product.

## Newly Remanufactured Office Cubicles: Greener than Green

**Re-man-u-fac-ture** \rē-ma-nyə-'fak-chər\ (verb) : to manufacture into a new product

Remanufactured cubicles offer nearly all of the benefits of brand-new, brand-name office cubicles at a far lower cost. And they offer one advantage over clones: They are manufactured in the USA from used original product and other domestically and internationally sourced materials.

Unlike cloned cubicles, remanufactured office cubicles use the actual brand-name product that was originally manufactured in the USA, to the exacting standards of the original manufacturer. These remanufactured products are backwards-compatible with their original progenitors – so remanufactured Herman Miller AO2 cubicle panels, for instance, can be easily fitted into an existing AO2 office setup.

**The Remanufactured Difference.** The concept behind remanufactured office cubicles is simple. Previously used office cubicles – essentially the cubicle panels and its constituent parts – are stripped down to their structural core.

“What’s in this panel core? The frame is made of timber strand for the stiles and rails,” explains Open Plan Systems’ Jay Bryson. “The core cavity’s filled with a honeycomb material fabricated from binder’s board, and it’s encased in two sheets of medium density fiberboard.”

These cores become the foundation and feedstock for the remanufactured cubicle.

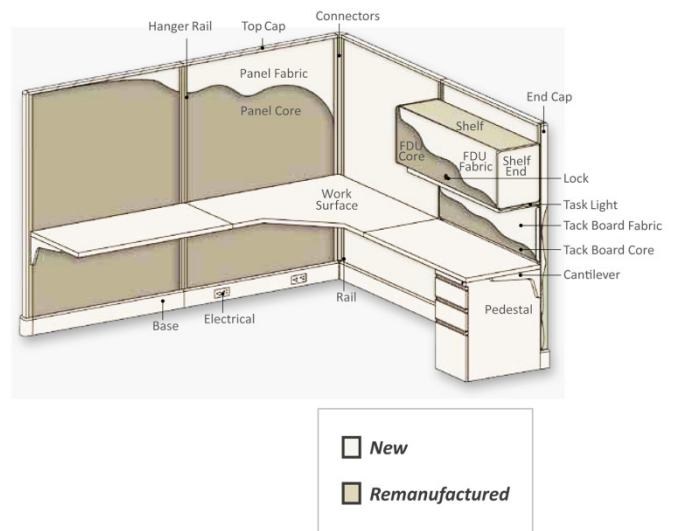
As orders arrive on the factory floor, panel cores are pulled from stock and supplied with new fabric and new electrical raceways and base covers. New work surfaces and storage components are added according to each customized order. Used hanger rails and connectors - fabricated from steel - are stripped and freshly painted using a powder coat process prized for its superior hardened finish and low VOC’s (volatile organic compounds; high levels of VOCs in office furniture are often blamed for sick building syndrome<sup>7</sup>).

Throughout the remanufacturing process, leaving aside the structural core, a host of other components are manufactured from brand new materials. So buyers who specify remanufactured cubicles get a *structural core* that is remanufactured from existing product, together with freshly-sourced components and fit and finish parts.

The end result is a cubicle that is indistinguishable from its 100% freshly-sourced brethren, albeit at significant savings to the planet and your wallet.

**What’s in it for the Customer?** Remanufactured cubicles offer numerous benefits to consumers. The most important two are:

1. **Low cost:** Remanufactured office cubicles can cost up to 60% less than comparable brand-new.



2. **Green credentials:** Remanufactured product is engineered and manufactured from recycled materials; they're not simply recyclable someday in the future (a point that manufacturers unwittingly make when they're selling brand-new cubicles freshly manufactured from new raw materials.)

**Brand Name Déjà Vu.** When surveying the brands that make up the raw materials for remanufactured office cubicles, the same brand names<sup>8</sup> crop up again and again. The same reasons that make these brand names so appealing to clone manufacturers also attract notice from office cubicle remanufacturers as well.

These domestic remanufacturers, like overseas cloners, base their choices on the following criteria, which only the aforementioned brands meet:

- A. **Durability:** the original components were designed to stand the test of time.
- B. **Simplicity:** cubicle components were engineered with a limited number of parts and pieces. With systems furniture, less is more.
- C. **Prevalence:** the cubicle models used for remanufacturing represent a substantial portion of cubicles installed and standing in the United States, thereby providing a ready and continuous supply of product for the remanufacturers and proven market acceptance for the cloner.

Because they're proudly made in the U.S.A., remanufactured product complies with the stringent standards set by bodies like the UL and the NFPA. Remanufactured cubicles' electrical components meet the same standards as corresponding parts in brand-new cubicles. The new fabrics and surfaces installed on remanufactured cubicles are just as fire-resistant as the NFPA-approved fabrics on brand-new, brand-name cubicles.

Thus, remanufactured products come with a warranty similar to brand new office cubicles, because they're practically indistinguishable from brand-new.

They're so similar, facility managers can slot these remanufactured cubicles into existing configurations without any trouble, assuming the remanufactured cubicles come from the same brand as the present setup.

"Reconfigurations with existing inventories should not be an issue," explains Bryson. "A remanufacturer has to meet or exceed the quality of the OEM since it is typically expected that there should be 100% compatibility."

**It is easy being green.** How good for the environment are remanufactured office cubicles? Remanufacturing 40 office cubicles can divert as much as a whole tractor-trailer full of old furniture from the local landfill<sup>9</sup>, and the energy saved from remanufacturing one workstation (or about five panels) can power ten average American households for a whole day.<sup>10</sup>

"Timber does not have to be harvested, neither bauxite nor iron ore have to be mined," Bryson says. "Also, since reused components aren't changing shape or function, any energy consumption and waste generated in remanufacturing is substantially less than recycled raw materials that are being manufactured into different components."

Facility managers derive more than merely moral victories from choosing remanufactured office cubicles: buying remanufactured office cubicles can earn LEED points, providing a significant advantage for projects seeking LEED certification. LEED stands for "Leadership in Energy and Environmental Design" – the U.S. Green Building Council (USGBC) awards LEED recognition to green and sustainable buildings, allowing certified workplaces to qualify for tangible benefits like tax breaks.<sup>11</sup>

## Pre-Owned: Pros and Cons

*used* \yoozdz\ (adj) that has endured use.

Facility managers who choose to go further down the spectrum of available office cubicles - away from brand new, or newly remanufactured – can consider the refurbished or used office cubicles option.

Both refurbished and used office cubicles, like their remanufactured cousin, come from the same feedstock: some form of previously owned product, but with important distinctions. The industry-standard 5 star rating system classifies types of used system furniture by their condition, and may be the simplest way for laypeople to understand the differences.

|       |  |
|-------|--|
| ★     | Inferior-quality product with significant signs of wear and tear. Also applies to cubicles with obsolete designs. Good for two things: as feedstock for remanufactured cubicles (if the structural core is still sound), or as landfill. |
| ★★    | Functional product. Scratches, dents, dings and tears clearly visible.   |
| ★★★   | Good condition. Minor scratches. Some minor dings. No significant dents to filing pedestals and/or storage components.   |
| ★★★★  | Very clean condition. No stains. Some visible scratches. No significant dings or dents to filing pedestals and/or storage components.  |
| ★★★★★ | Like new condition. Extremely clean product. Very few if any minor scratches.  |

Let’s look at the classifications in this system, and what role each category of used office cubicle fulfills in the market.

**One- and two-star inventories** are *never* sold by reputable providers to end-users. Instead, these are used as feedstock for remanufactured office cubicles, or as recycled landfill.

**Three-star inventories** may undergo some refurbishing before being sold to the end-user. Refurbishing involves steam-cleaning the panels and replacing functionally damaged or missing parts.

- **Used office cubicles** scoring at least 3 stars on the scale represent a distinct category of pre-owned product that qualifies for resale after undergoing a touch-up session or two. When you specify 3-star refurbished office cubicles, you are buying an office cubicle that is visibly used, yet free of any defect that would impede 100% functionality.

**Used/refurbished cubicles** are significantly cheaper than new or newly remanufactured office cubicles. These cubicles offer the same benefits of new or newly-remanufactured, but to a lesser degree: a limited warranty may be offered for refurbished product, but expect the coverage period to fall short of their new or remanufactured counterparts.



**Four- and five-star inventories** make up most of the reputable cubicle providers' inventory of primo "as-is" offerings. Used, primo "as-is" office cubicles offer the greatest value to the end user.

"As-Is means you take the product as it exists," explains Aron Groner. "There is nothing more added. There is no labor invested to clean the panels or replace broken or missing parts." Because much of the inventory classified as "as-is" comes from gently-used stock, the outsize discounts that come with such cubicles represent excellent value for facility managers who are willing to overlook the occasional scuff mark and can live with a few caveats:

- **Flexibility on color & finishes:** this is generally not a tremendous obstacle except for the exceptionally picky. In any case, unusual colors are not usually carried by reputable systems furniture providers, who prefer the customary beiges, blues, and grays.
- **Flexibility on size and configuration:** If the client's business demands are very specific, the available cubicles' size and configuration can present an obstacle. For instance, a civil engineering firm will often specify cubicles with worksurface depths of 30 inches, which might not be easily available in an as-is inventory.
- **Flexibility on delivery and installations:** Distance can be an obstacle when it adds time, cost and complexity to the order.

Buyers of used office cubicles shouldn't expect to get the same kind of experience, compared to buying new or newly-remanufactured.

- **Quality:** While the quality of used office cubicles can approach that of brand new after only months in use, brand new is still brand new.
- **After Sales Service:** Any office systems furniture dealer worth their salt will be proactive about after-sales service whether they have sold you new or used product, but warranties on used as-is office cubicles will typically be limited in scope and duration compared to those for brand new cubicles.
- **Configuration:** Buyers must find configurations of used inventory that will match or adapt easily to their desired configuration. Buyers of new and newly-remanufactured cubicles can simply order parts to match the configuration they wish, as these parts are manufactured to their exact specifications.

## What Do You Need? Ask Your Office Cubicle Supplier

A concept such as Ideeli's benching approach to enhancing workflow (p. 9) come easy when the facility manager trusts their instincts and their collaborators. Finding the right collaborators is often easier said than done, but they're out there.

Trust is the most important component in any vendor-customer relationship, and is the key ingredient to a successful outcome. Taking a 100-seat facility from concept to move-in is no simple task – it involves harnessing the collective smarts of a varied mix of professionals:

- **Interior designers** who understand the complex relationship of scale, spatial dimension and aesthetics;
- **Space planners** who recognize the dynamics of workflow, and understand the laws of physics, the geometry of architecture, and standard building codes and ADA (American Disabilities Act) requirements; and
- **Product specialists** who are schooled in the science of ergonomics and economics.

At their best, your office furniture supplier will be able to subtract the whole process from their client's already full agenda. Your vendor of choice is the point person who owns your project, and becomes your partner in a successful outcome.

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“You can’t replace having a vendor who is in your camp and earnestly takes on all your interests as though it was their own,” explains Vince P., a facility manager from Pearl River, New York. “If you can find a contractor that will work through all the project challenges with you and deliver you the right product at the right price point, you had better keep him.”

Thus any vendor should be absolutely vetted to be sure they’re up to the task: they need to show the utmost competence, providing capable and timely service while effectively communicating what they can deliver and when.

Each of the following issues should be resolved by the vendor to their client’s satisfaction:

- **Price:** the ability to answer all price-related questions
- **Product Quality:** the ability to ensure the delivery of a quality product, with minimal need of addressing any problems that crop up afterward
- **Teamwork:** the ability to manage a team of professionals; at the same time, the ability to play by the customer’s rules
- **Timeliness:** the ability to meet any committed schedule, with no tolerance for excuses
- **Coordination:** The ability to manage complicated logistical matters involving the movement of men and materials

Here’s a helpful tip: if you limit your choice of pre-owned office cubicles to product lines that are still being produced (as many are), you’ll have an easier time continuing to expand your build-out using similar (if not the same) color finishes. You can also supplement the existing supply of parts and pieces to satisfy a configuration that is different from how it was originally installed.

## The Future of the Office Cubicle:

### The "Un-Cubicle"

While the office cubicle is here to stay for the long haul, Cubicles.com’s chief design director Corynne Linkous is seeing a shift towards openness: “Companies that thrive on team effort require a more open environment that enhances their collaborative workflows,” says Linkous.

Intensive workflow demands a high degree of collaboration, as each worker depends on another for the completion of one’s overall task. Companies that depend on intense collaboration – internet- and technology-based companies, creative enterprises like design houses and PR companies, and a small number of financial companies – thrive in this type of workflow, and conventional office cubicles may be too enclosed to accommodate their style of work. These enterprises are gravitating towards the “un-cubicle”.

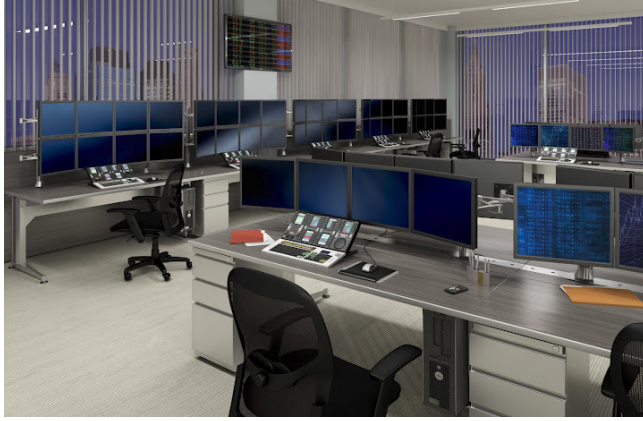


“The ‘un-cubicle’ is, in essence, a cubicle without walls,” explains Linkous. “If you take the panels away, what you are left with is a desking system and the perpendicular support structure along with its integrated data, power and storage components.”

Early experimenters with open office environments were often frustrated by the technology and mindsets of their day. Ad man Jay Chiat’s famous flirtation with the virtual office ended in disaster: creative employees, once freed of their desks, were difficult to locate in the days before IM and ubiquitous cellphones.<sup>12</sup>

Not so today, where mobile technology and changed worker mindsets encourage receptivity to more open, collaborative environments.

In today's market, the "un-cubicle" is also referred to as a "benching system". Their configuration can be adapted for personalized workstations, or reconfigured into network operations centers, or NOCs. "Benching systems are very versatile," says Linkous. "They provide the foundation for a customized solution that fit a great deal of



alternative work strategies. These strategies might not be a perfect fit for cubicles, but may be ideal for benching systems."

Cubicles.com's work with members-only online retailer ideeli.com provides a case in point. The company had a 4,200 square foot area that they wanted to transform into a creative modern, open collaborative workspace. The resulting workspace is surprisingly free of conventional cubicle walls, but created an open workspace where ideas could flow unhampered.<sup>13</sup>

Benching systems deliver a second benefit: because a shared work environment takes up less space compared to the conventional office cubicle setup, an "un-cubicle" can accommodate more workers in the same office real estate, saving space and money in the long run.

## Conclusion

Will the "un-cubicle" end up displacing the office cubicle, the way office cubicles once displaced the traditional free-standing office desk? Much depends on the future of collaboration in the workplace. Not all offices depend on intensive collaboration, and thus on collaborative spaces; we fearlessly predict that the office cubicle will remain the status quo for a long while yet.

As the office cubicle persists into the foreseeable future, so will the variety of choices available to the office facility manager. Twenty years from now, barring any major change in technology and telecommuting trends, today's top cubicle brands will inhabit tomorrow's office as they do today, and facility managers can count on a robust market for cloned, remanufactured, and refurbished/as-is office cubicles.

## Endnotes

- <sup>1</sup> Rigg, Sarah A. (November 27, 2008). The office cubicle turns 40: Much-maligned workspace was born in Ann Arbor. MLive.com. Retrieved from [http://www.mlive.com/businessreview/annarbor/index.ssf/2008/11/the\\_office\\_cubicle\\_turns\\_40\\_mu.html](http://www.mlive.com/businessreview/annarbor/index.ssf/2008/11/the_office_cubicle_turns_40_mu.html)
- <sup>2</sup> Musser, George (August 17, 2009). The Origin of Cubicles and the Open-Plan Office. Scientific American. Retrieved from <http://www.scientificamerican.com/article.cfm?id=the-origin-of-cubicles-an>
- <sup>3</sup> <http://www.bifma.org/statistics/index.html>
- <sup>4</sup> Sew What?. Flame Retardancy: Navigating Flame Retardancy Regulations in the United States. Retrieved from [http://www.sewwhatinc.com/fr\\_in\\_US.php](http://www.sewwhatinc.com/fr_in_US.php)
- <sup>5</sup> Wikipedia. Underwriters Laboratories. Retrieved from [http://en.wikipedia.org/wiki/Underwriters\\_Laboratories](http://en.wikipedia.org/wiki/Underwriters_Laboratories)
- <sup>6</sup> GREENGUARD Indoor Air Quality Certification Program. Retrieved from [http://www.greenguard.org/en/manufacturers/manufacturer\\_indoorAirQuality.aspx](http://www.greenguard.org/en/manufacturers/manufacturer_indoorAirQuality.aspx)
- <sup>7</sup> EPA.gov. Indoor Air Facts No. 4 (revised) Sick Building Syndrome. Retrieved from <http://www.epa.gov/iaq/pubs/sbs.html>
- <sup>8</sup> Most common brands and models being remanufactured today are: Haworth's Unigroup, Herman Miller's Action Office, Knoll's Morrison line, and Steelcase's Avenir.
- <sup>9</sup> The Office Furniture Recyclers Forum. Recycled Office Furniture: Good for the Environment, Good for Your Business. Greenbiz.com. Retrieved from <http://www.greenbiz.com/sites/default/files/document/O16F3340.pdf>
- <sup>10</sup> National Center for Remanufacturing and Resource Recovery (NC3R) (May 2005). The Energy and Environmental Benefits of Office Furniture Remanufacturing. BIFMA.org. Retrieved from [http://www.bifma.org/public/SusFurnStdArchive/Workgroups/WG1/Energy%20and%20Environmental%20Benefit](http://www.bifma.org/public/SusFurnStdArchive/Workgroups/WG1/Energy%20and%20Environmental%20Benefits%20of%20Remanufactured%20Furniture%201.pdf)
- <sup>11</sup> Summary of Government LEED® Incentives – March, 2009. USGBC.org. Retrieved from <http://www.usgbc.org/ShowFile.aspx?DocumentID=2021>
- <sup>12</sup> Warren Berger, Lost in Space. Wired Magazine (Feb 1999). Retrieved from <http://www.wired.com/wired/archive/7.02/chiat.html>
- <sup>13</sup> Case Study: Ideeli.com. Cubicles.com. Retrieved from <http://www.cubicles.com//office-furniture-portfolio/portfolio.php?pid=87#>