

F.Y.I.

FOOD SERVICE PLANNING AND ENGINEERING The Au-

HARVEST TIME A good firm is known by its fruit!

WORKPLACE

Einhorn Yaffee Prescott Saint Elizabeth's Hospital Moorhead Federal Bldg Gensler, Fox & Fowle, Renzo Piano (RPBW) The New York Times **HNTB** National Defense Univ. Navy Yard-Bldg 200 Kling FDA - White Oak AMGEN U.S.P.S. Central Michael Graves Architect U.S. Embassy, Seoul PageSutherlandPage U.S. Embassy Phnom Penh SmithGroup Eisenhower Executive Office Building SOM U.S. Embassy-Moscow U.S. Census Bureau Wisnewski Blair Assoc. Fannie Mae Zimmer Gunsul Frasca U.S. Embassy Capetown **EDUCATION** Beyer Blinder Belle General Theological Seminary Gruzen Samton

West New York School MMM Design Group Virginia Military Institute Polshek Partnership The Frank Sinatra School SOM Five NJ Schools STV Two NJ Schools

JUSTICE HSMM

FBOP Tuscon Thompson & Litton Southwest Regional Jails

RECREATION

DBI Military Project Gruzen Samton El Museo del Barrio

Dear Associate,

As I write this letter to you I find myself in a most unusual, most wonderful situation. Hurricane Isabel whacked Thomas Edison good and he went down for the punch. The count is at about 8.

I am dependent on the sun for enough light to do most things. I can't turn on my computer

to check for messages or to make those airline reservations I need. Grateful to mother nature I am for this experience, but especially that the air is neither too hot nor too cold.

Allow me to share a few impressions with you as a way of extending this lesson.

We are straddling the Grand Canyon between eras, and I feel a rush of nostalgia. While I adore this quieter, natural, more rhythmic life, I can see that it may soon be gone from cities forever, and a new era of harnessed energy will attend the human experience.

This reliance on the sun, this banishment of electricity, will not be tolerated by the commercial underpinnings of our civilization. Ralph at The Market across the street and the folks at the Co-op had to fling open their doors and invite the community to take ice cream, cheeses and other perishables. After that, their doors were locked for what is days now.

This situation is an anachronism, but it also predicts a time when more buildings and communities will be generating their own power. The image of the one building in Manhattan last month that was purring along while throngs walked across the Brooklyn Bridge to get home, is vivid in... (over)

The Giving Kitchen

Somewhere between the visible, tangible world of rocks and trees, and the invisible world of atoms and cells, lurks the quasi-visible world I call "The World of the Great Quasi-Visible Effect." This is where one sees *the effect* of an invisible thing – cyberspace, germs, love and all kinds of energy.

Power to the People

Energy cannot be created or destroyed; it goes from a concentration to a dissipation.

The challenge is to convert the energy into fuel and electricity, and to prevent dissipation, thus the invisible heat lights a house, makes a shower comfortable, and even cools the air.

Capturing and recycling heat has been the mission of many a scientist and engineer for decades. In 1979 Ted Taylor of Princeton first conceived the solar pond, a large pond enclosed by



A Class in the Condemned Essex Market School with Gas Burning By Day, 1898, Jacob Riis

dikes and covered with transparent plastic air mattresses. The water is heated by sunlight and insulated against cooling winds and evaporation. This year-'round hot water could be used for domestic heating, or converted into electricity, or into chemical fuels by simple commercial heat engines. Such a system was planned to supply enough electricity, domestic heat and hot water for 100 apartments used by families of members of Princeton's Institute for Advanced Study.

The commercial kitchen, like the solar pond, can also be a source of heat energy. Kitchens produce waste heat during cooking and refrigeration. Too often this valuable heat is sent into the atmosphere through exhaust hoods and... (over)

¹ Freeman Dyson, Disturning the Universe, Harper & Row, 1979

A Letter from the Front Alexander Laktionov

> "Mankind is always advancing and man always remains the same." Goethe



Earth from Apollo17

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Christina Olsen 1947, Andrew Wyeth

Lynn's letter continued ... my mind as a lone star in the midnight sky. The sky will be full of such stars.

The day will come, should come, when each building, house, office, school and store is donating the excess power it generates for itself to a community power supply. This future condition will not only keep the wheels of commerce turning with a flip of a switch, it will substantially reduce the threat of an enemy to harm large blocks of our nation and the world . Mother Nature, please don't take that the wrong way.

Hope your fall harvest is plentiful. Thanks for the fruit you've passed on to us.

Lynn Hopkins



2003 AIA Honors Award: Bernard Baruch College Tower, City University of New York * 2002 United States Air Force Design Award Citation: Patrick Air Force Base Golf Club * 2002 AIA DC Chapter Merit Award and Catalyst Award: AFL-CIO Headquarters * 2002 GSA Design Award for Architecture Citation: Food & Drug Administration Center for Food Safety and Applied Nutrition, Harvey W. Wiley Federal Building * 2002 GSA Design Award "On the Boards" Citation: Census Bureau Headquarters

The Giving Kitchen continued...air conditioning. Hot water goes down the drain and away from where it is needed, and more heat and water are generated using more fuel. What waste!

The Giving Kitchen employs energy recovery wheels placed inside the exhaust hood to transfer heat out of the air stream into a recirculating water loop. The heat from that loop is used to preheat water going into the hot water heater. With this boost the delta of 90 degrees



Eero Saarinen, 1948, Arnold Newman

(bringing water from 50 to140 degrees) is reduced by almost 50% to save electricity and fuel costs. At a large institution like the Virginia Military Institute, 80 feet of hoods represents a lot of waste heat. With a heat exchange system [Hopkins will be employing in the renovation] a lot of hot water will be made more cheaply for washing dishes, pots and pans and for cleaning floors.

Refrigeration is another source of recyclable heat. Grocery stores and other large users of refrigeration capture waste heat and transfer it to hot water recovery tanks to be used for sanitation.

Again, hot water costs are eliminated in industrial facilities that use co-generation to run a dynamo (turbine) to create electricity and the by-product is used to make hot water by running a fan over a hot water tube. The waste heat is used for space conditioning through fan coil units.

A Giving Kitchen also gives back energy by sending leftovers to homeless shelters. The more conscientious operators use their blast chillers to chill the foods first, thus retaining more nutrient content of the foods they give away.

The Giving Kitchen recycles frying oil instead of disposing it. This oil is used to make soaps, cosmetics, animal feed or is reformulated and reused. Otherwise the operator pays to have the oil removed and virgin resources are used to make the same products.

The Giving Kitchens of today are using pulpers rather than garbage disposers. Disposers grind food that goes down the drain and into the sewer system, where it is filtered and treated as waste. Pulpers extract water from the garbage until it becomes like sawdust. This material can be carted away (saving filtering and sewage process-

ing), or can be used (as does the Virginia Department of Corrections) in composting. Through composting this waste is used for bedding mulch saving even more on the fuel to cart it away and the cost of commercial fertilizers.

The Giving Kitchens of today and tomorrow will join with solar ponds, and innumerable other conservation technologies to bring even more power to the American people.



William L. Laurence, New York Times science editor, 1955, Arnold Newman