

**IES**

**SF** Education



**2015 SPRING  
SEMINARS**

# Lighting & Urban Placemaking



**Part 1- How Light Drives Urban Vitality**



IES | SF

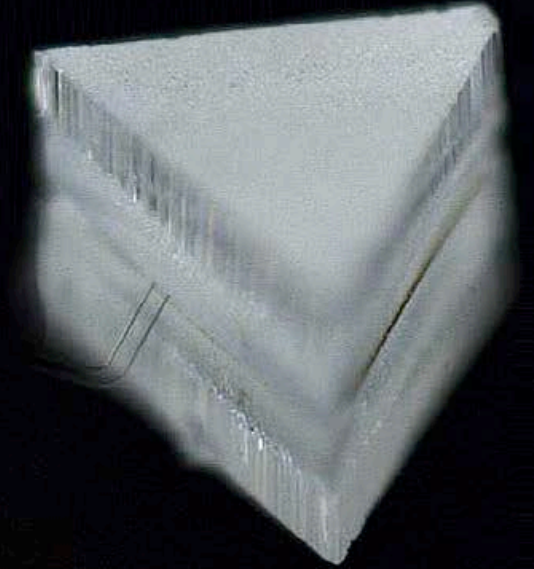
# Lighting & Urban Placemaking



**A Brief History of Public Lighting**  
Clifton Lemon



Light is Fire



# All in a Day's Work



2000 BC- 10  
minutes

Today- 20,000 hrs.



# Equal R Value

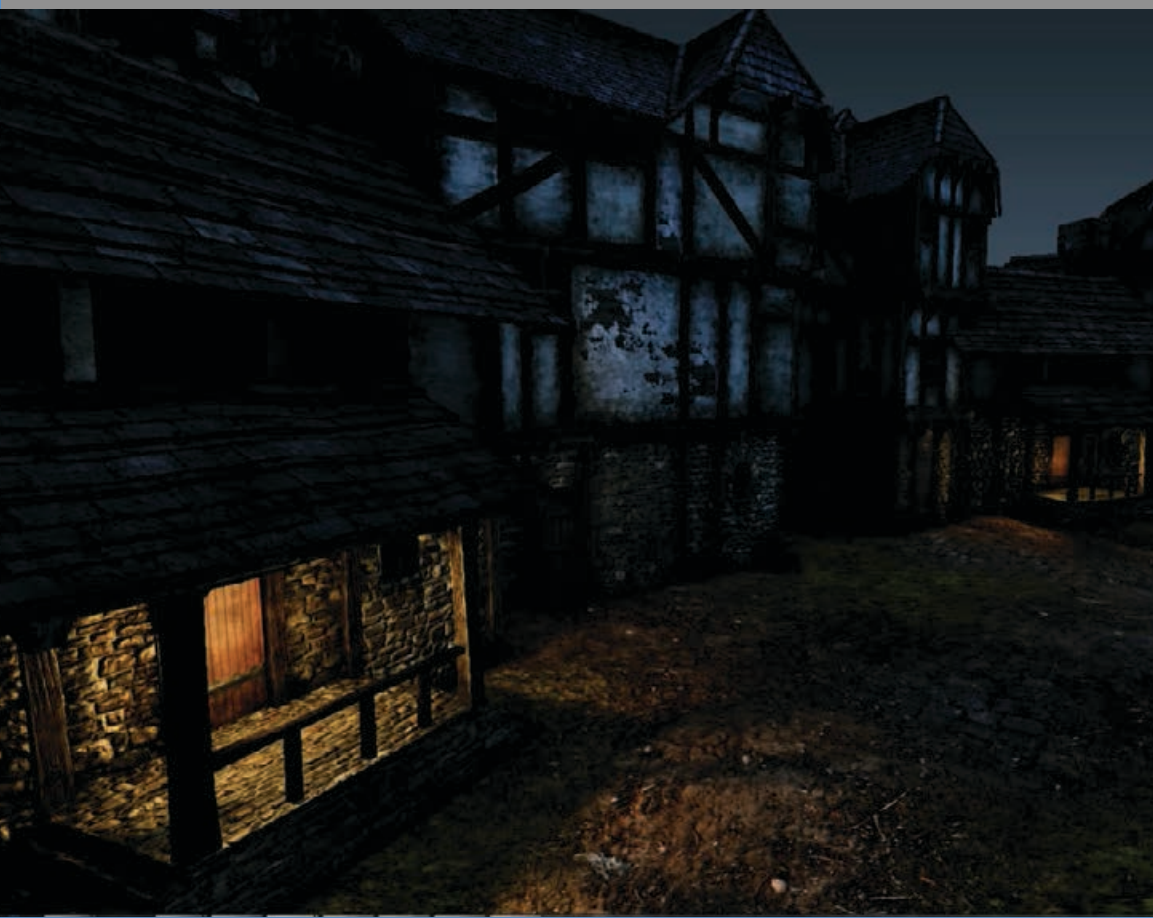


# Lighting Leads

- Lighting makes the infrastructure of human life possible
- Lighting was dormant in the 20<sup>th</sup> century. LEDs are the awakening
- IOT is the real revolution: Lighting is the backbone of the Smart City



# Providing Security







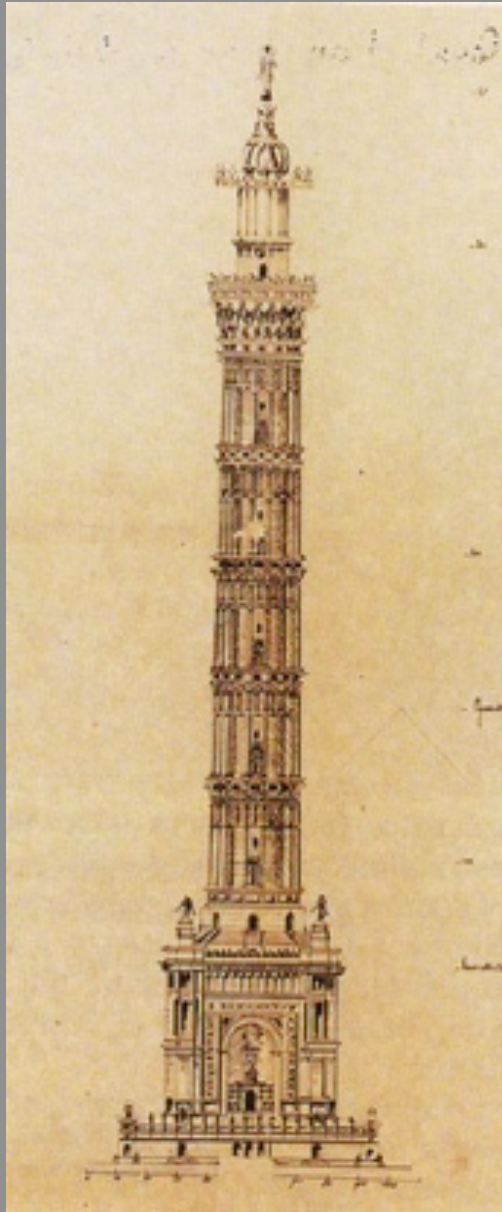


# Symbolizing Order

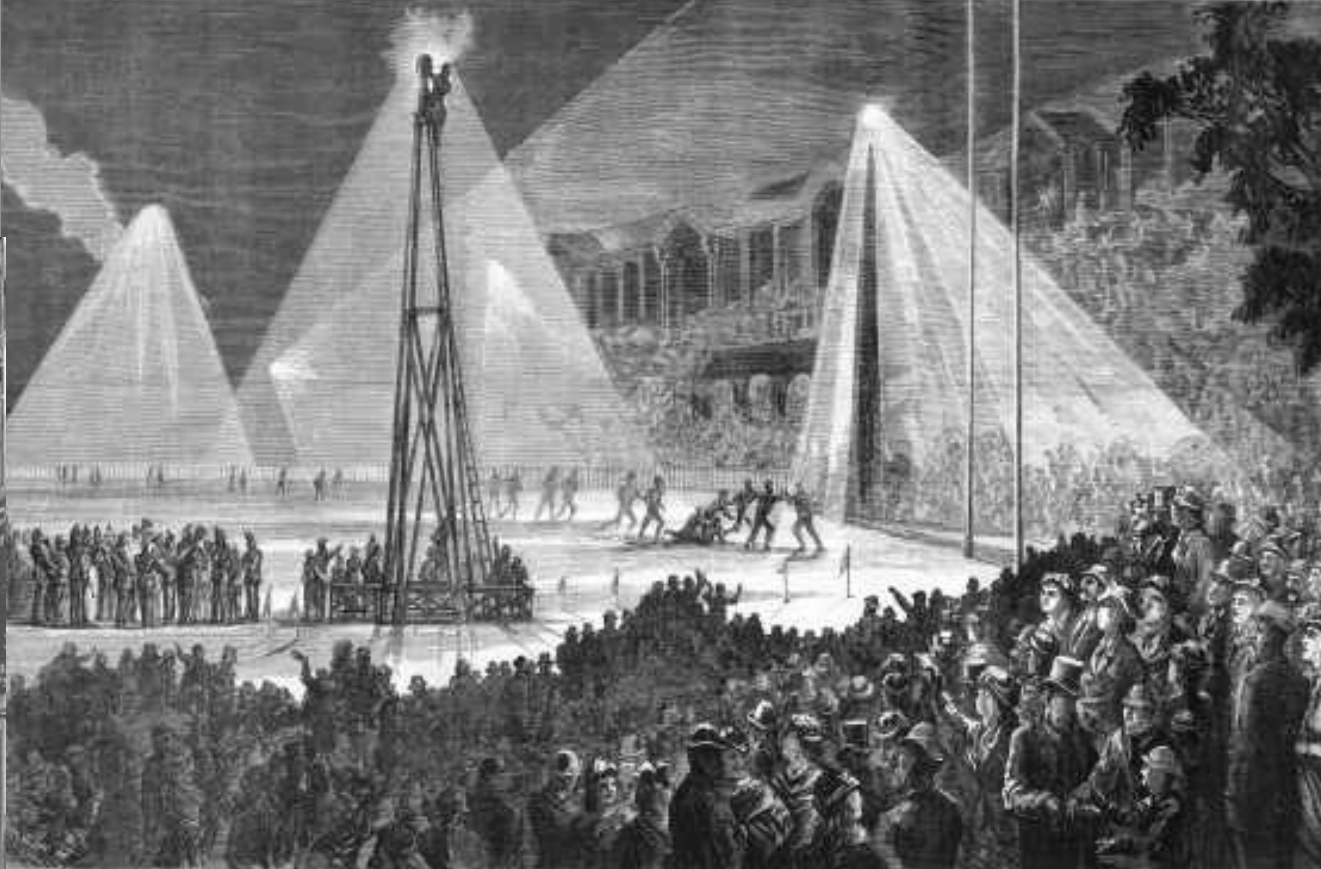
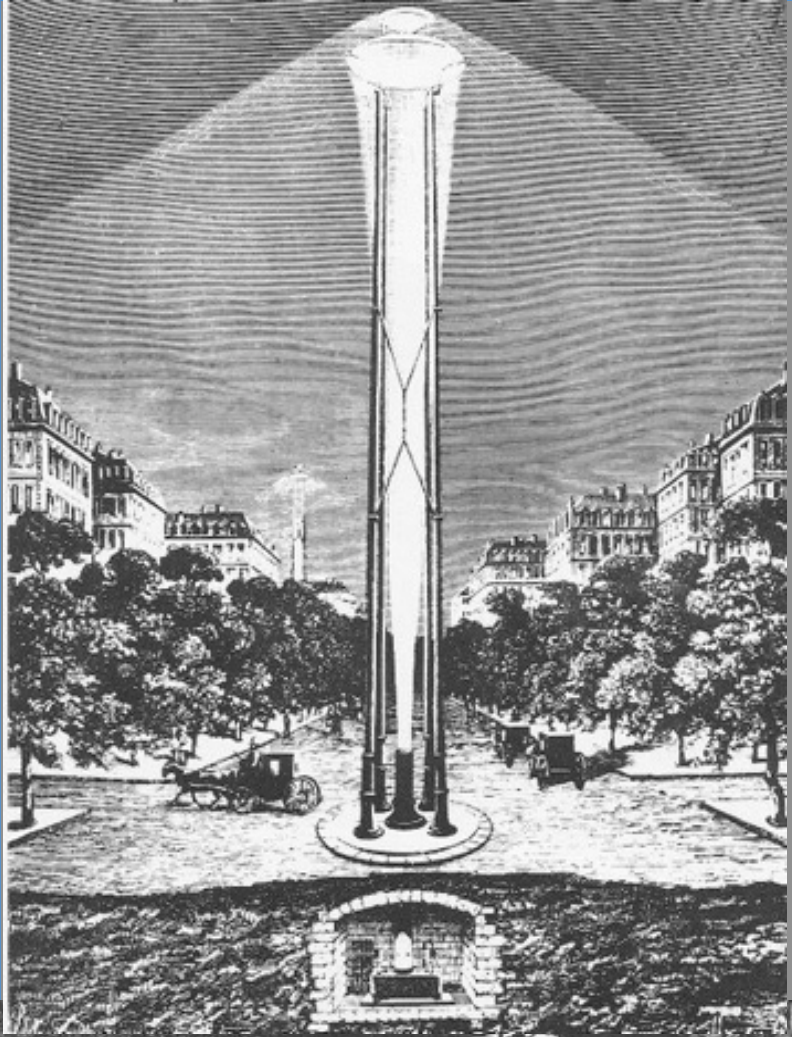




# Fueling Competition













# Powering Spectacle





A VIEW of the FIRE-WORKES and ILLUMINATIONS, at his GRACE the Duke of RICHMOND'S at WHITE-HALL, and on the River Thames, on Monday 15 May, 1749.

Perform'd by the direction of Charles Frederick Esq



W's Pavilion beautifully illuminated, &c. The Duke of Richmond's House, &c. The Boat and Burgoyne, for the

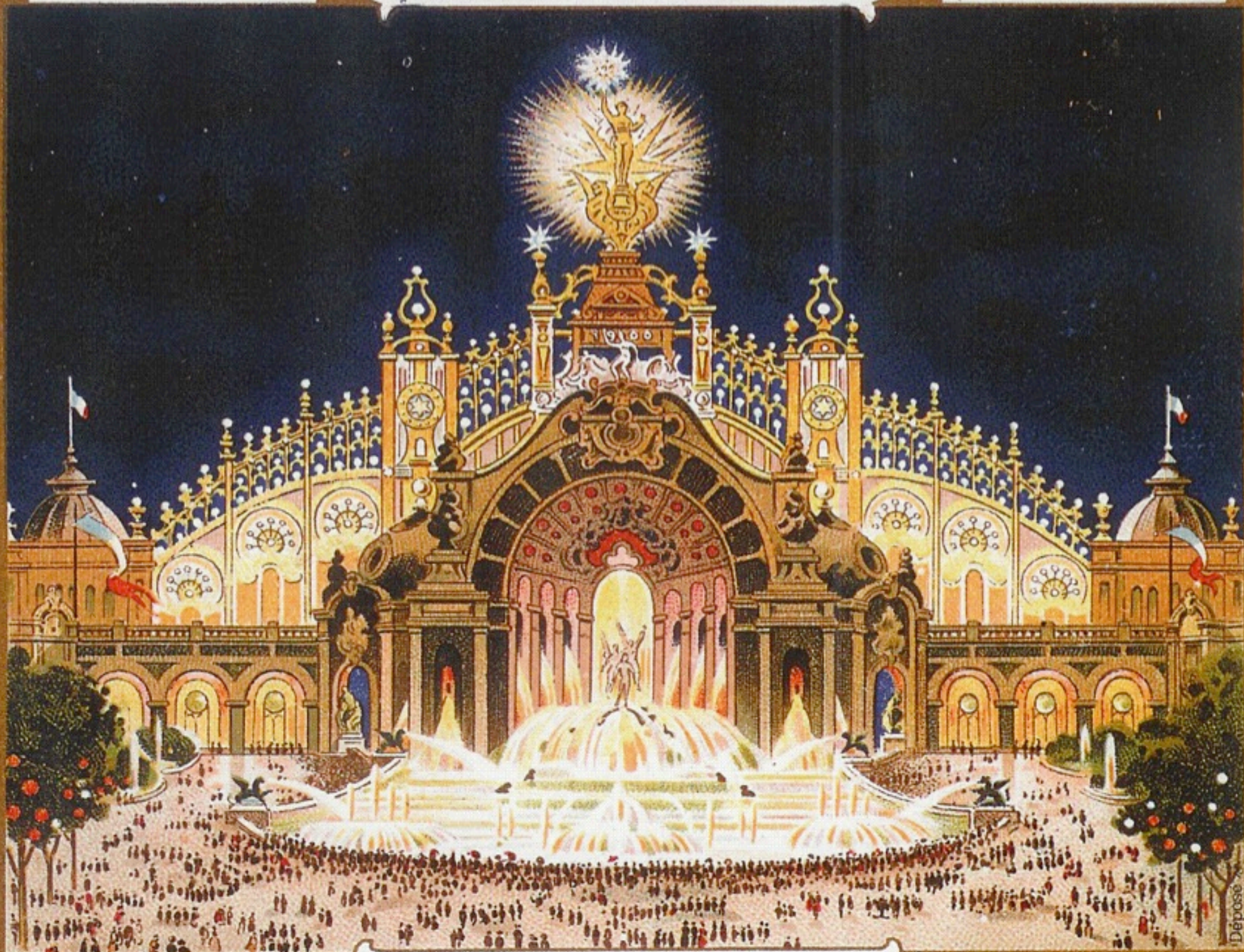
Vue des FEUX d'ARTIFICE et des ILLUMINATIONS donnees par Monseigneur le Duc de RICHMOND de LENOX et d'AUBIGNY, sur la TAMISE et vis a vis de son Hotel, Lundi le 15<sup>me</sup> de Mai 1749. Sous la direction de Mons. Frederick.



AU BON MARCHÉ

EXPOSITION UNIVERSELLE 1900

NOUVEAUTÉS



PALAIS DE L'ÉLECTRICITÉ

Déposé











# Driving Nocturnalization









# Creating Beauty & Vitality











HERN

THE  
PEN  
SHOP













HOTEL

区役所前  
カブセルビル

東陽ビル

新宿サブナード(株)

パーティーカラオケ

カラオケ

MISTER DONUT

MISTER DONUT

MISTER DONUT

毎メニュー!  
ミスのサンドウィッチ。

ドーナツ400

おいしい  
サンドウィッチ









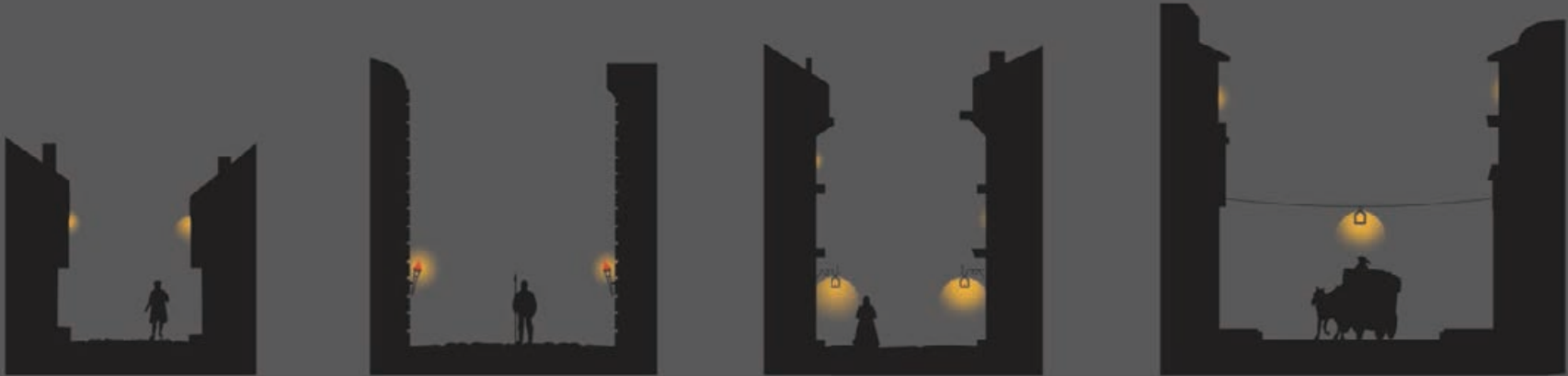
epsos.de







# Migration of Light from Private to Public



1000

1200

1500

1600



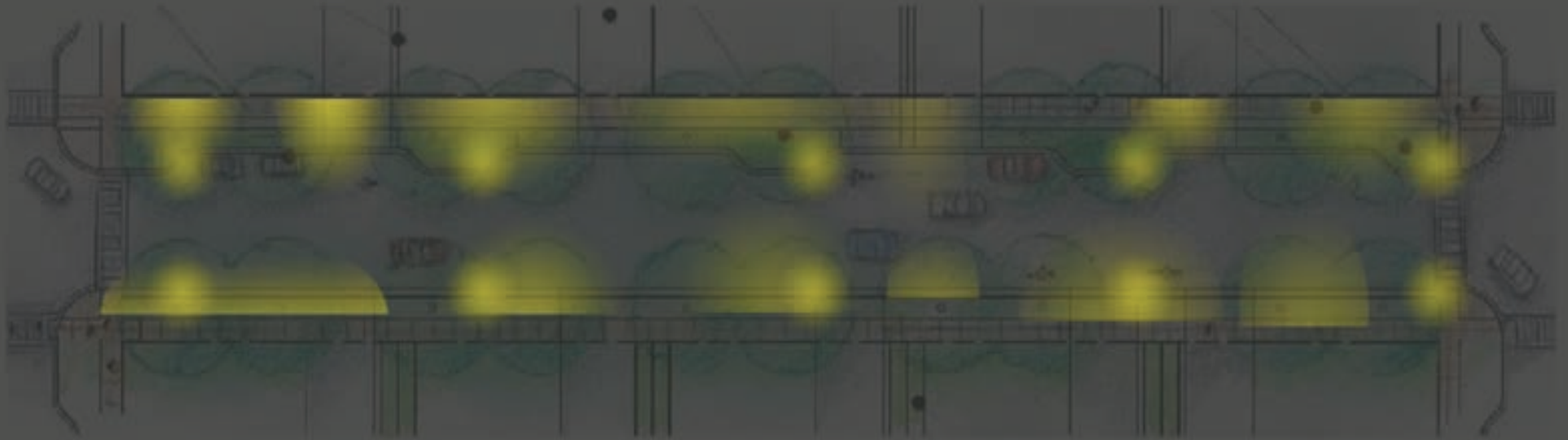
1780

1840- Gas

1880- Electric



# Experiential Light Plan





# Creating Safety





# Extending Markets





# Driving Growth









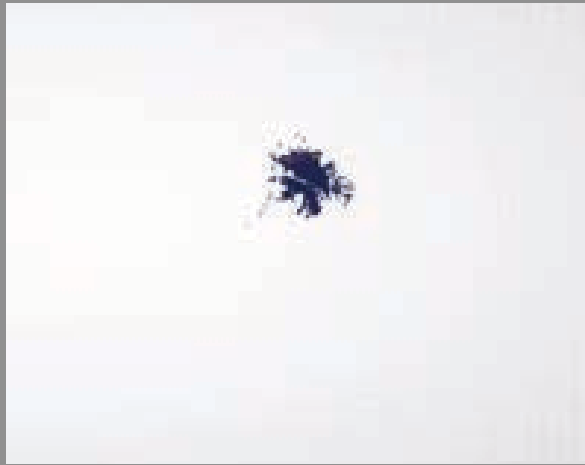


**GALERIES  
LAFAYETTE**

GALERIES LAFAYETTE



# Impact of Electric Light on Growth in Paris



1803



1840- Gas Lighting



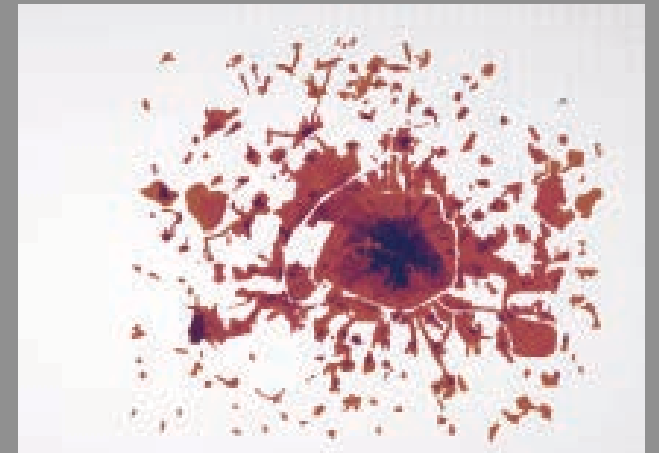
1880- Electric Lighting



1887



1895



1928

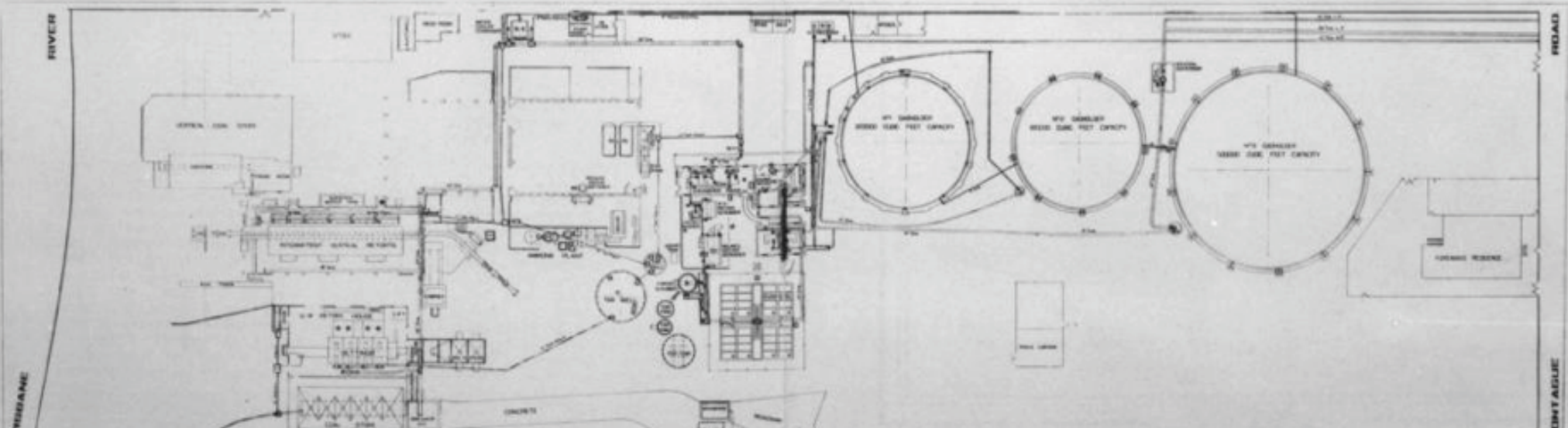
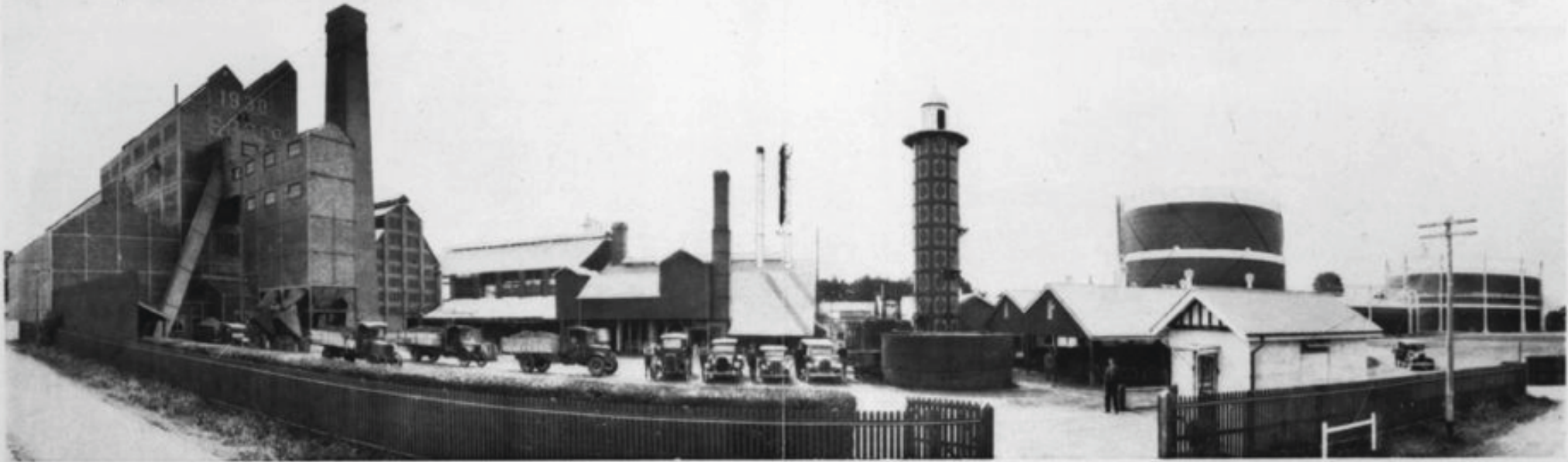


# Enabling Trade & Transport





# Driving Energy Networks







The Coal being stamed  
 produces tar or paine for  
 outside of Houses - the  
 Smoke passing thro water is  
 deprived of substance and burnt  
 as you see

Arise hurry if this man  
 brings fire thro water we shall soon  
 have the Thames and the Siffog  
 burnt down - and all the pretty little  
 Herrings & Whales burnt to cinders

Oh Friend but it is  
 all Vandy what is this  
 to the inward light

If this light is not  
 full a stop too - we  
 must give up our business  
 We may as well shut  
 up shop

True my dear  
 not a dark  
 corner to be got  
 for love or money

Wants what a man  
 pretty light it be we have  
 nothing like it in our  
 Country

Woodward del.

A PEEP AT THE GAS LIGHTS IN PALL-MALL.







**INCANDESCENT GAS LIGHT**  
**(NEW & IMPROVED SYSTEM)**  
 ELECTRIC LIGHT SURPASSED.  
 All the advantages of Electric Light and none of its drawbacks.



**Welsbach**  
**LIGHT**  
 Inverted Arc Lamp, Fig. 623.

Storm Proof—  
 For Exterior Lighting.

Welsbach-Kern  
 (Patent) Inverted System

BRITISH MADE.

BRITISH MADE.



Height over all.

1-light	1 ft. 8 ins.
2-light	2 ft. 4 ins.
3-light	2 ft. 4 ins.
4-light	2 ft. 7 ins.

Width over all.

1-light	1 ft. 1 in.
2-light	1 ft. 3 ins.
3-light	1 ft. 5 ins.
4-light	1 ft. 8 ins.

Fig. 623 Three-Light.

**E**NAMELLED Green Steel Casing, fitted with Welsbach-Kern Inverted Burners. Gas and Air Regulators operated from outside. Sliding Door to give access to Burners for cleaning purposes. Fitted with Magnesia Nozzles, Welsbach Mantles, and Glass Mantle Protectors. Complete as shown. Highly efficient and regenerative.

	Gas per hour.	C.P.	Steel	Copper Case.	Gas per hour.	C.P.	Steel	Copper Case.
1-light	4 feet	125	30-	5- extra.	3-light	15 feet	450	526
2-light	8 feet	260	476	6- extra.	4-light	15 feet	550	726

All on or off, or One light on and the rest off, 7.6 per Lamp extra. Cup and Ball, 3.6 per Lamp extra.

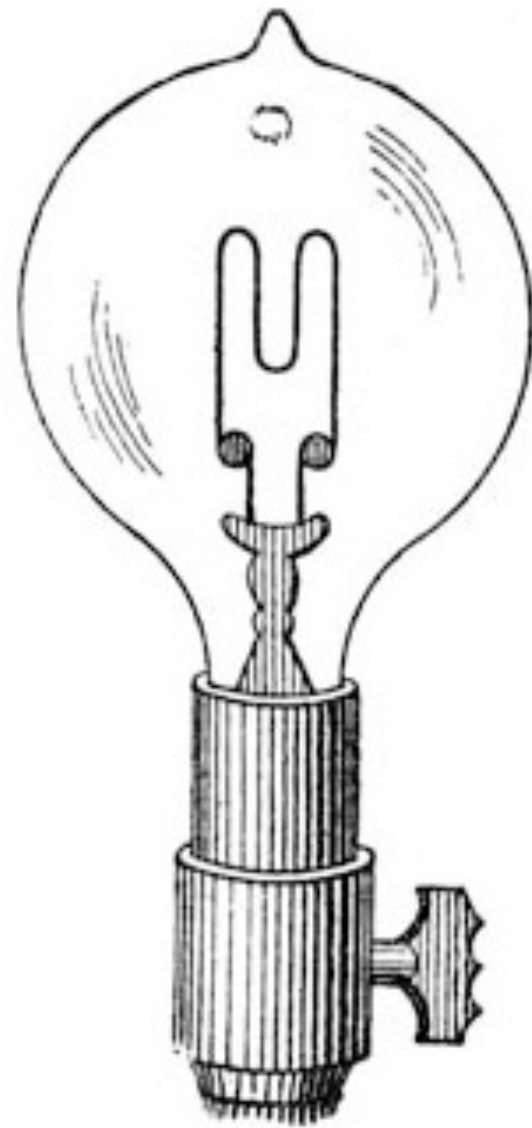
**RENEWALS.**  
 Glass Mantle Protectors (Fig. 613) 3.4 per dozen, or in case lots of 3 gross, 33- per gross.  
 Clear Glass Globes, each 23 59 59 9- | Wire Globes, extra each 2- 2- 29 36  
 " " " 19 6 57 9 57 9 93- | Parabolic Reflector, extra 3 6 6- 7 6  
 Case contains 20 22 22 22 | Welsbach Mantles, each 6d. subject to usual.  
 The Welsbach Mantles for Upright lighting are "C," "CX," and "Plainsbury," price 4d. each.

**THE WELSBACH INCANDESCENT GAS LIGHT CO., LTD..**  
 Welsbach House, 344-354, Gray's Inn Road, London, W.C.  
 Telephone 4042/4043. "WELSBACH LONDON." Telephone 2114 1047/10.

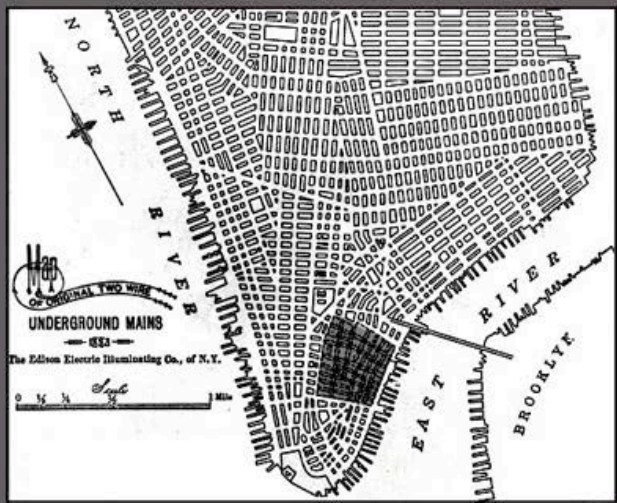
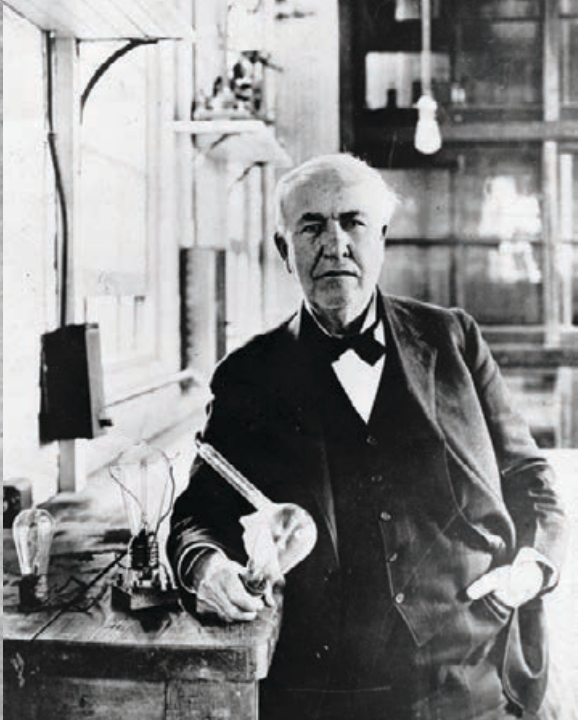
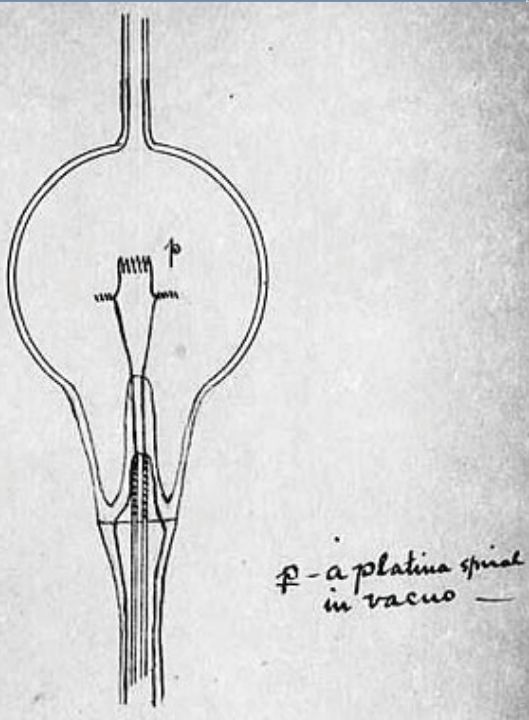


**ELECTRIC GAS LIGHTING**  
**H.S. NORRIE**

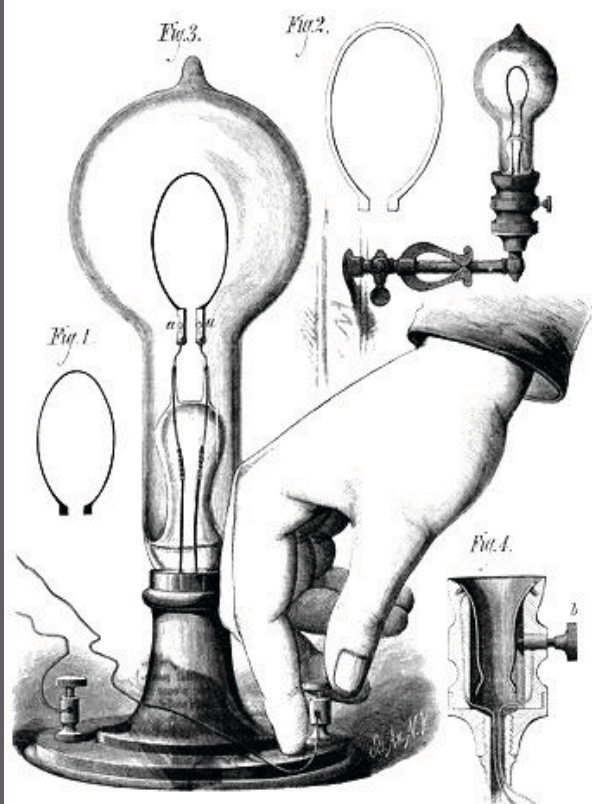








- Pearl Street Station
- Customers



EDISON'S LATEST ELECTRIC LAMP.





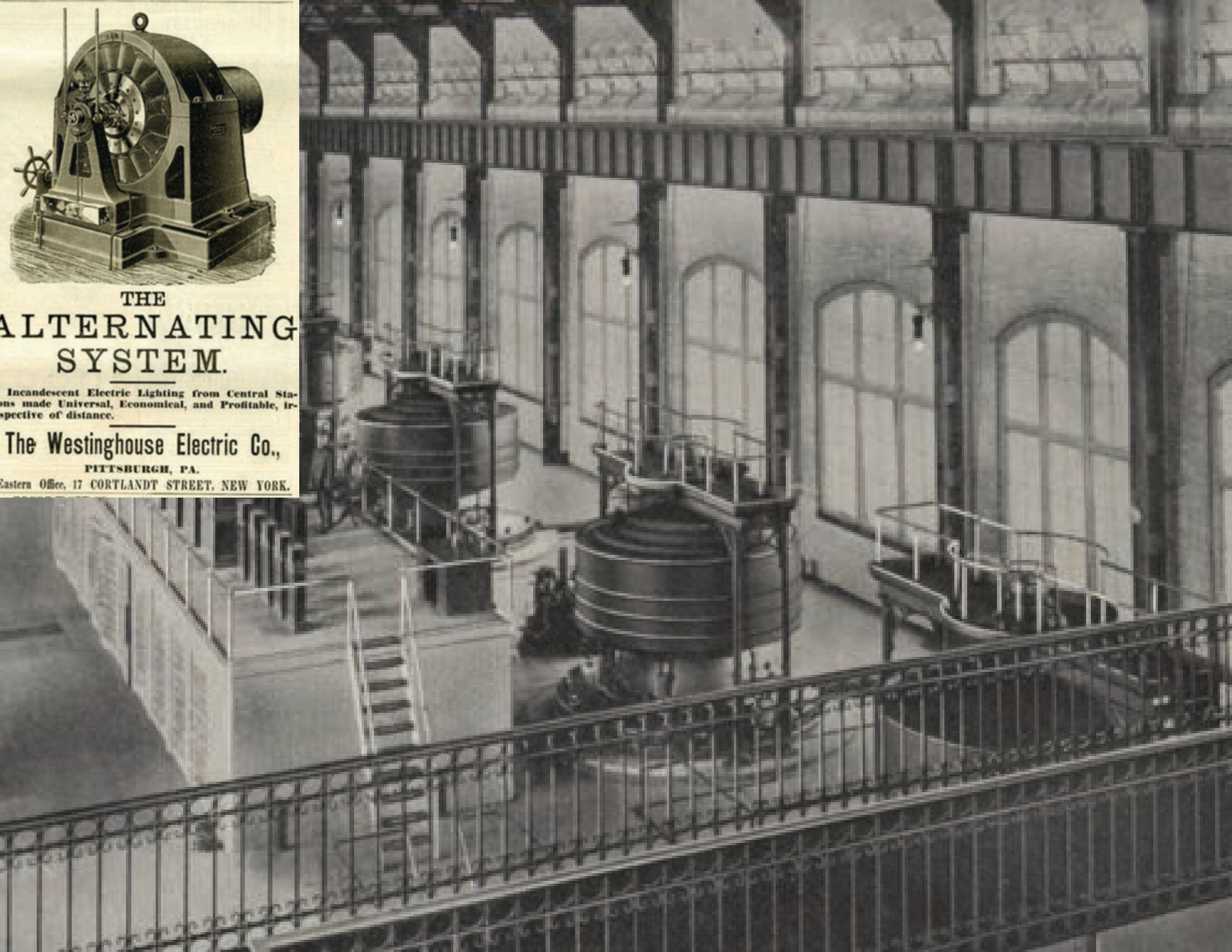
## THE ALTERNATING SYSTEM.

Incandescent Electric Lighting from Central Stations made Universal, Economical, and Profitable, irrespective of distance.

**The Westinghouse Electric Co.,**

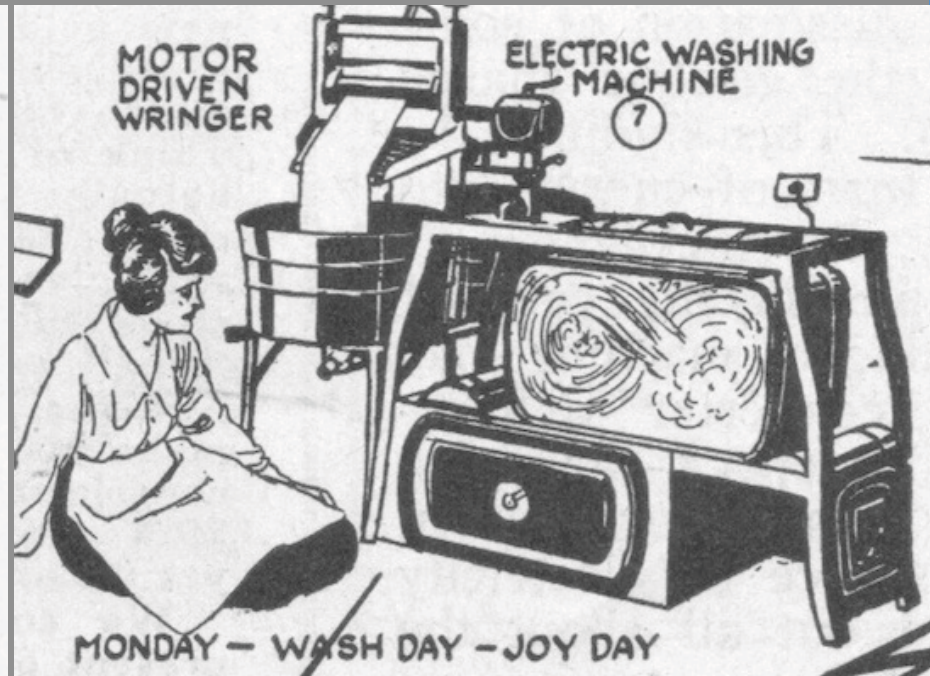
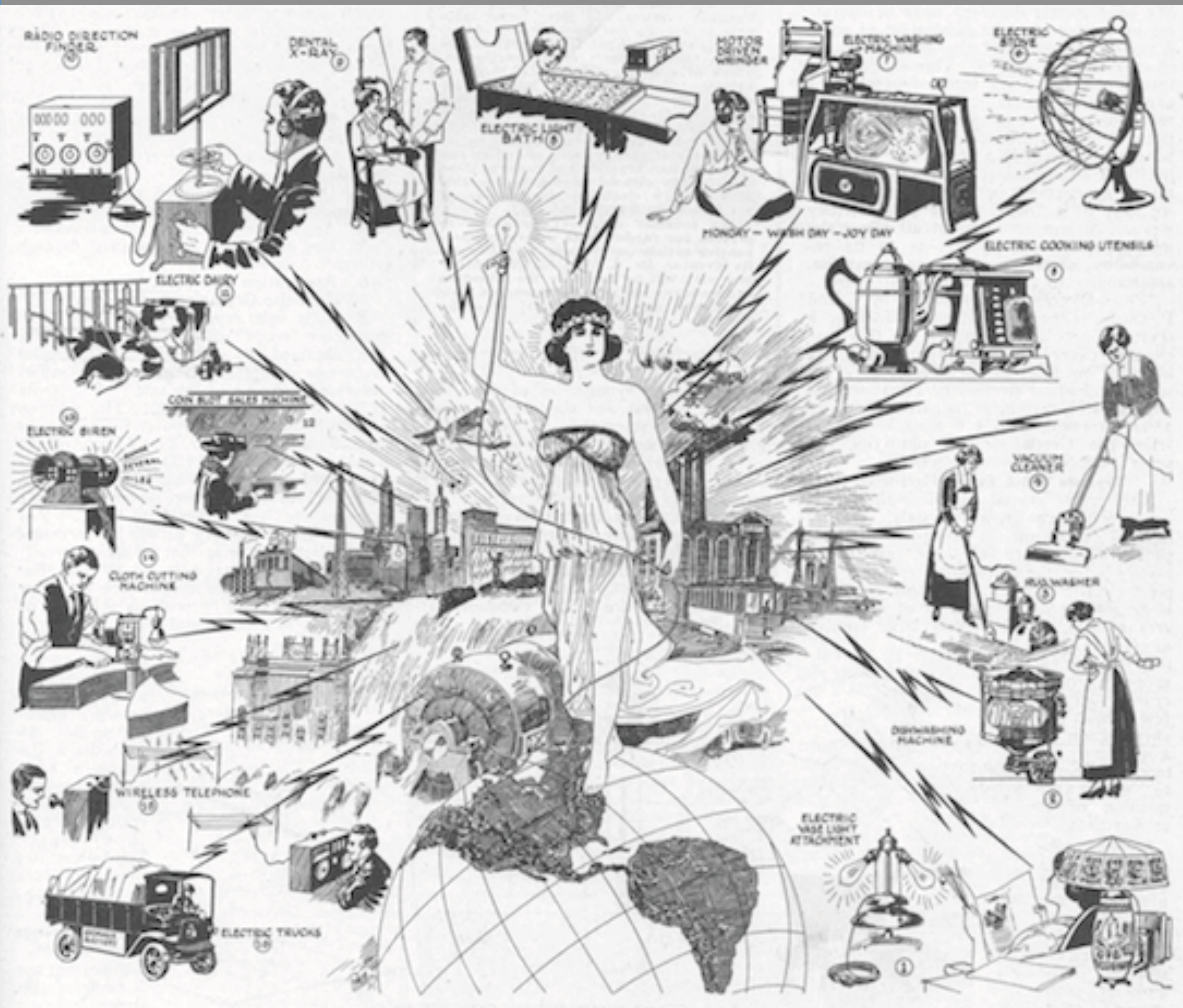
PITTSBURGH, PA.

Eastern Office, 17 CORTLANDT STREET, NEW YORK.





# Driving Markets- Advertising







THE  
D.C.

THE  
GREAT  
LOVE  
STORY

THE  
GREAT  
GATSBY

**Budweiser**  
BEERED EVERYWHERE

**CHEVROLET**

*Companions*  
*Club*  
IMPORTED WHISKY

**CAPITOL  
THEATRE**

**Monadic View**

**CRITERION**

*Belmont*

NO  
TURN





TREK GUEST SUITES

PALACE



KARAOKE

Hit or Miss  
win.

the



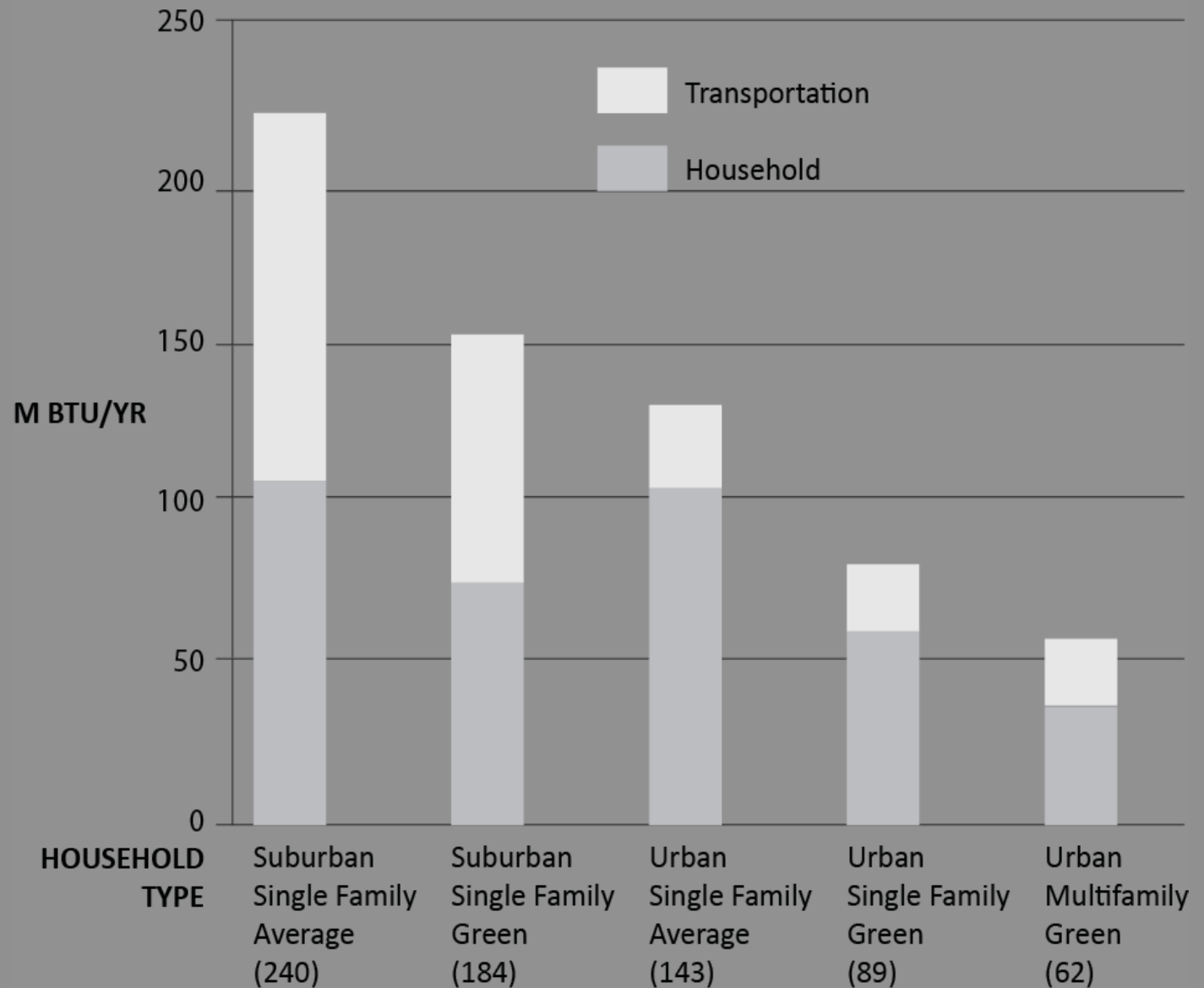
# Global Warming





# Cities are Greener

## Comparative Annual Energy Use per HousingType



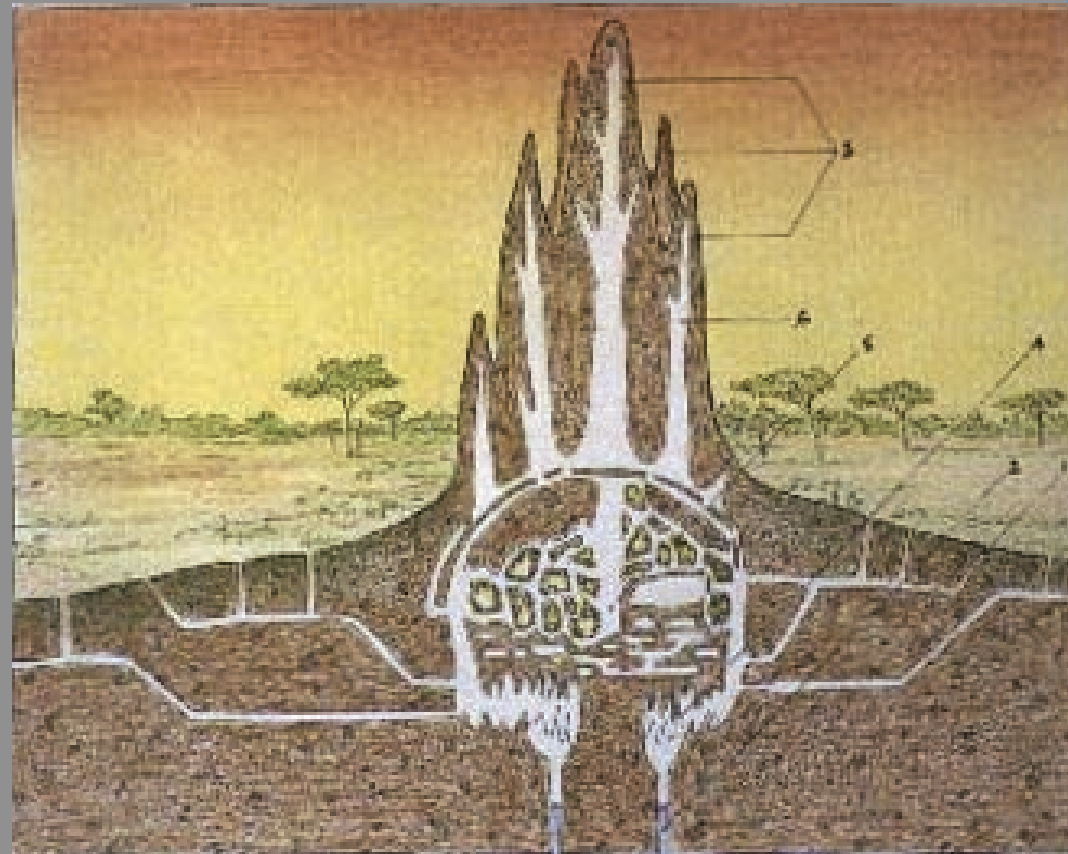


# Cities that Learn





# Disruption vs Balance





# What Will Future Cities Feel Like?





Thank YOU

Clifton Lemon

BrandSequence

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[waterfireshelterfood.com](http://waterfireshelterfood.com)

415 254 7056

@cliftonlemon