THE NEXT 50 YEARS OF ARCHITECTURE + HEALTH
“History is a procession of ideas. It seems chronological, so start at the beginning.”

Douglas Brinkley
University of New Orleans 1993
World War II was pivotal in all of our lives. At the time, America was completely involved with serious consumer product decisions.
The supply of Sparkle Donkey notwithstanding we joined the active war effort in 1941.

- Penicillin was first produced and widely used clinically.
- Streptomycin synthesized.
- Blood and blood products came to the battlefield.
- George Means won the D-Day invasion through model-making and music.

- **Hospital Design and Construction became a regulated government concern.**

  The Hospital Survey and Construction Act 1946 known as Hill-Burton Program was enacted in the immediate post war years.
George Calvin Means, Jr. Comes to Clemson in 1951

The Therapeutic Community published in England in 1953
OMNIFARIOUS
of all varieties, forms, or kinds

“ALL OF THESE FACTS REQUIRE RESEARCH TO FIND POSSIBLE ANSWERS”

George C. Means, Jr. FAIA
1960s
Mental Retardation and Community Mental Health Centers Construction Act of 1963

John F. Kennedy's New Frontier.

Introduced by Senator J. Lister Hill (D)
“Here you go, Harry”
Lyndon Johnson
President of the United States
Independence MO
1965 Medicare Amendment to the Social Security Act
First Contact
1969
Abortion
Alternative Medical Practices
Medical Ethics – Karen Ann Quinlan
Deinstitutionalizing the Mentally Ill
Cost Control
Alternative Medical Organizations – HMOs
New and Growing technologies
New and Epidemic disease

“How National Health Insurance is an idea whose time has come.”
Richard M. Nixon
President of the United States
1974

The 1970 Focus on the Village System
Federal Law intervenes in the process of developing health care facilities again from 1964 to 1974

The Social Security Act section 1122 used “to assure that Federal funds appropriated under titles XVIII and XIX are not used to support unnecessary capital expenditures made by or on behalf of health care facilities”

1974 PL 93-641 The National Health Planning and Resources Development Act is passed resulting in state agencies responsible for determining need for capital expenditures – Certificate of Need
IT TAKES A VILLAGE
PHYSICAL DESIGN SYSTEM...

THE VILLAGE SYSTEM

A TYPICAL VILLAGE...

200-300 PATIENTS
"The Village System"
Prof. George C. Means, AIA
Robert L. Chartier, Assoc. AIA
COLLEGE OF ARCHITECTURE CLEMSON UNIVERSITY
“An Architecture for Human Dignity”
AIA Journal  August 1973
Focus on the Village System

“He designed using all the tender, loving sympathy and understanding possible…”

Dulon Pollard, MD about George Means
South Carolina Department of Mental Health
February 1973
Robert Lester Chartier, AIA pokes the village with stick
The outstanding achievement of the psychiatrist Dr Humphry Osmond lays in helping to identify adrenochrome, a hallucinogen produced in the brain, as a cause of schizophrenia, and in using vitamins to counter it. This breakthrough established the foundations for the orthomolecular psychiatry now practiced around the world.
“All models contain the implicit promise that if only one used them long enough and patiently enough, they would yield up the desired evidence. Yet models, like empires, rise and fall.”

Humphrey Osmond, MD
Models of Madness, Models of Medicine
1974
Not just models
Health Care as big business
Alternative therapies popular but no professional support
Significant Diseases and Chronic Conditions emerge
AIDS spread rapidly in US population – no magic bullet
New Technologies in surgery – Jarvik 7
Transplantation
Genetic Engineering
Cost Control, Prevention, and Wellness - Push to Ambulatory Care
Managed care
HMO Act of 1973 starts to bear fruit enrollments increasing by 25%
Hospital census drops and consolidations result in bed reductions
1980 - 16% of surgeries outpatient
1989 – 49% of surgeries outpatient

The 1980s
After the Village System: Service Learning Projects and…
“Prevention is an idea whose time has come”
US Surgeon General Julius Richmond, MD
Washington DC 1989
Demonstrating counting on fingers
No beard this week

Expert practitioners add depth and wisdom as visiting instructors
We did have a reunion, too

Expert practitioners add depth and wisdom as visiting instructors

Demonstrating how to count on fingers
No beard this week
Health Care Reform  
Quality Initiatives  
Alternative medical practices  
Synthetic Surfactant  
SIDS advances  
Surgical and Technology advances  
Drug resistance  
Significant Diseases and Chronic Conditions  
Medical ethics  

The Program re-building, re-structuring & service learning  

The 1990s  

Winston. America's Best.  

Excellence. The best live up to it.
Those are not moving parts
The Human Genome Project draft was completed. Human Genome Discoveries Reach the Bedside
Doctors and Patients Harness Information Technology
Heart Disease Deaths Drop by 40 Percent
Stem Cell Research
Targeted Therapies for Cancer
Combination Drug Therapy Extends HIV Survival
Minimally Invasive and Robotic Surgical Techniques
Scientists Peer Into Mind With Functional MRI
PET (Positron Emission Tomography)
Primary Care: The Rise of Corporate Healthcare
Advancement of Palliative Care

The Building of the Sponsored Research Agenda
2000
2003 – 2014 Development of patient room concepts through ideation and testing
Healthy eating concept is abandoned

2013 – The first kidney was grown in vitro in the U.S.
2013 – The first human liver was grown from stem cells in Japan.
2014 - The first 3D printer is used for first ever skull transplant.
2016 - The first artificial pancreas was created.

Major gains in understanding epidemic diseases such as HIV, Diabetes, and Alzheimer's
Cancer screening produces significant results
Big Data

The 2010 Program Expansion
Center for Health Facilities Design & Testing
Grant Funded Research
Realizing Improved Patient Care through Human-Centered Design in the Operating Room (RIPCHD.OR)
Clemson establishes a bakery department
Realizing Improved Patient Care through Human-Centered Design in the Operating Room (RIPCHD.OR)
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Douglas Brinkley
University of New Orleans 1993

"History is a procession of people"

John Michael Currie
Clemson University 2018
Hundreds of graduates

Dozens of fellowships, scholarly awards, and design awards

Peer reviewed and grant funded research

Work on every continent except Antarctica

The Sparkle Donkey says…
Nearly 20% of US hospitals are in bad shape, according to a new report on 16 August 2018.

The report, which was conducted by Morgan Stanley and analyzed data from over 6,000 hospitals, found that 450 of these facilities were at risk of potential closure and 600 hospitals were considered weak.

Business Insider 16 August 2018