

<p>SMART SCHOOLS</p>	
<p>The Community-Centered Small Schools Movement</p>	<p>Jan 27, 2006 Denver, CO</p>
<p>Victoria Bergsagel Catherine Sepulveda Steve Coyle, AIA</p>	

<p>CURRENT SCHOOL CONSTRUCTION ROOM PRESENTS A MATCHLESS OPPORTUNITY TO RETHINK LEARNING ENVIRONMENTS AND BUILD SMART COMMUNITIES</p>	
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HISTORY: Why did Americans start building bigger schools?

SPUTNIK = OCTOBER 4, 1957

- MANY AMERICANS FELT THAT SMALL SCHOOLS SHOULD BE ENLARGED TO OFFER THE MATH AND SCIENCE NEEDED TO MEET THE CHALLENGE OF SOVIET TECHNOLOGY

Mastie Fairbanks Architects

SOURCE
THE AMERICAN HIGH SCHOOL TODAY
1959

JAMES BRYANT CONANT
The American High School Today, 1959

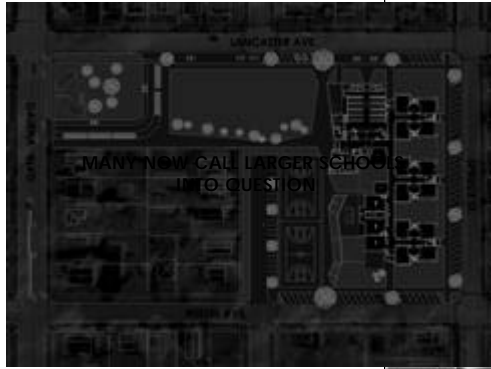
CONANT SAID:

THOUGHT ONLY "COMPREHENSIVE" HIGH SCHOOLS COULD ACHIEVE THE ECONOMIES OF SCALE NECESSARY TO SUPPLY STUDENTS WITH THE RANGE OF COURSES REQUIRED BY THEIR DIVERSE EDUCATIONAL NEEDS

HIGH SCHOOLS COULD GET ACADEMICALLY STRONGER IF THEY GOT LARGER

BY LARGER HE MEANT 400-500 STUDENTS

SOURCE
JAMES BRYANT CONANT,
PRESIDENT OF HARVARD UNIVERSITY
THE AMERICAN HIGH SCHOOL TODAY, 1959



OUR NATION'S REALITY

- HIGH SCHOOL GRADUATION RATES...
 - 70% graduate high school
 - 50% African Americans/Hispanics
- DROPOUTS CONSTITUTE...
 - 50% of all heads of households on welfare
 - 64% of prison population
- EARNINGS...
 - Male dropouts earn 63% < college grads
- SOCIAL SECURITY TAXES PAID ANNUALLY BY....
 - Dropouts - \$1145
 - HS grads - \$2540
 - College grads - \$5200



SOURCES:
 MANHATTAN
 INSTITUTE, 2002;
 SWARTZ, W., 1995;
 HARLOW, C.W., 2003;
 CENTER FOR LABOR
 STUDIES, 2002

DENVER'S REALITY

- PROFICIENT IN MATH...
 - 11% of all 9th graders
 - 4% Latino and 5% African American
- PROFICIENT IN READING ...
 - 38% of all 9th graders
 - 25% Latino and 40% African American
- HELD BACK AT END OF FRESHMAN YEAR ...
 - 18% of all 9th graders
 - 62% Latino and 20% African American
- NUMBER OF "EXCELLENT" HIGH SCHOOLS...
 - One - Denver School of the Arts



SOURCE:
 DENVERS COMMISSION
 ON SECONDARY
 SCHOOL REFORM
 A CALL TO ACTION
 FOR TRANSFORMING
 DENVERS HIGH SCHOOLS
 MAY, 2005

**COMPARING BIG SCHOOLS
(1,000 OR MORE)
WITH SMALL SCHOOLS
(LESS THAN 300)**

- 825 % MORE VIOLENT CRIME
- 270 % MORE VANDALISM
- 378 % MORE THEFT AND LARCENY
- 394 % MORE PHYSICAL FIGHTS OR ATTACKS
- 3,200 % MORE ROBBERIES
- 1,000 % MORE WEAPONS

Martin Fairbanks Architects



SOURCE:
DOLLARS AND SENSE:
The Cost Effectiveness
of Small Schools
2002
Using data from the
National Center for
Educational Statistics

SOCIAL COSTS OF LARGE SCHOOLS

- COLLEGE GRADUATES ARE...
 - Twice as likely than those without a high school diploma to report being in excellent health
- NATIONAL AVERAGE ANNUAL COST, 2001-02...
 - \$22,650 per prisoner
 - \$7894 per student
 - (According to reports in the July 30, 2002, edition of the *Milwaukee Journal Sentinel* "It costs \$60,000 to \$70,000 a year to incarcerate one juvenile.")
- DROPOUTS ...
 - Constitute half of the heads of households on public assistance, averaging \$5000 per month




SOURCES:
URBAN INSTITUTE
USDA
FOOD AND NUTRITION
SERVICES, NATIONAL
BUREAU OF ED
STATISTICS,
U.S. DEPARTMENT OF
JUSTICE

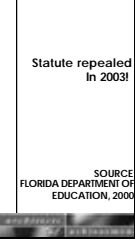
PREPARING FOR FUTURE SUCCESS?


Current factory model schools - the cells and bells model - were not designed to help prepare all students for work, life and citizenship

They isolate students from the community, sort and select, create anonymity, and often fail to teach the ways students learn



SMALL SCHOOLS	
<ul style="list-style-type: none"> • Raise student achievement • Close the achievement gap • Combat student anonymity • Increase attendance/graduation • Elevate teacher and parent satisfaction • Increase participation in extracurricular activities • Mediate for poverty's affects <p><i>Essentially all the ed research in the last 35 years supports small</i></p>	 <p style="font-size: small;">SOURCES COTTON, K., 2002 HOWLEY & HOWLEY, 2004 HOWLEY & BICKEL, 2000 WASLEY, et.al., 2000</p>

FLORIDA	
IN 2000 THE LEGISLATURE OF FLORIDA PASSED BILL 235.2157	
<ul style="list-style-type: none"> • FLORIDA SCHOOLS AMONG THE LARGEST IN NATION • SMALLER SCHOOLS PROVIDE BENEFITS OF <ul style="list-style-type: none"> • Reduced discipline problems and crime • Reduced truancy, gang involvement, dropouts • Improved teacher and student attitudes • Improved student self -perception & achievement • Increased parental involvement <p>SMALLER SCHOOLS CAN PROVIDE THESE BENEFITS WHILE NOT INCREASING ADMINISTRATIVE AND CONSTRUCTION COSTS</p> <p>THE STATUTE LIMITS</p> <ul style="list-style-type: none"> • ELEMENTARY SCHOOLS TO 500 STUDENTS • MIDDLE SCHOOLS TO 700 STUDENTS • HIGH SCHOOLS TO 900 STUDENTS 	 <p style="font-size: small;">Statute repealed in 2003!</p> <p style="font-size: small;">SOURCE FLORIDA DEPARTMENT OF EDUCATION, 2000</p>

MARYLAND	
<p>STATE TO PAY TEN PERCENT PREMIUM FOR CONSTRUCTION OF SCHOOLS WITH LESS THAN:</p> <ul style="list-style-type: none"> • 400 ELEMENTARY SCHOOL • 600 MIDDLE SCHOOL • 800 HIGH SCHOOL 	 <p style="font-size: small;">SOURCE MARYLAND DEPARTMENT OF EDUCATION, 2000</p>

CALIFORNIA

STATE TO PAY TEN PERCENT PREMIUM FOR CONSTRUCTION OF SCHOOLS WITH LESS THAN 500:

“Funding will be available on a pilot program basis for those that propose to build a small high school as part of an academic reform strategy that focuses on the positive outcomes that small high schools encourage.”

{Education Code Section 17072.10 (c)}

Assembly Bill 1465



SOURCE
CALIFORNIA
DEPARTMENT OF
EDUCATION, 2005

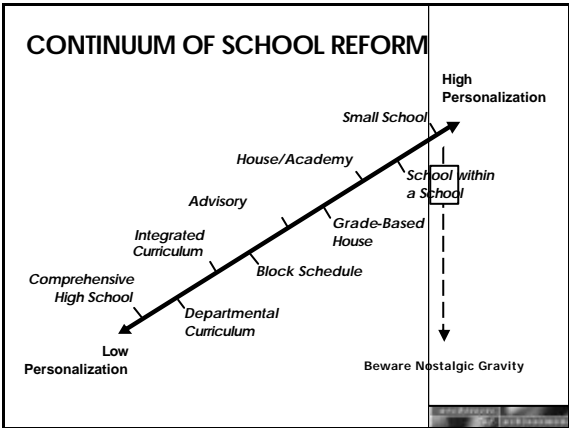


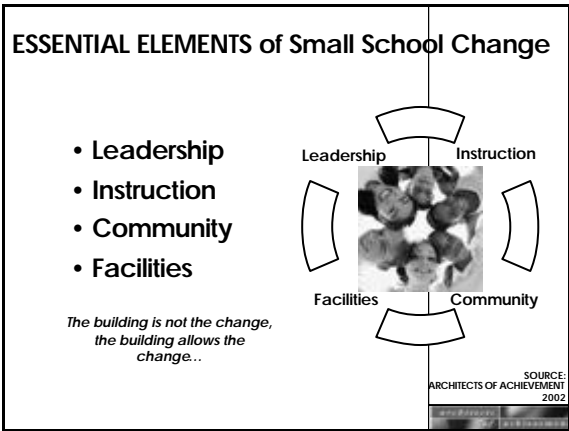
OUR COLLECTIVE GOAL

- Design schools that work well for *all* students
- Offer adaptable spaces that promote...
 - Community and personalization
 - Multiple modes of teaching and learning
 - More equitable outcomes for all

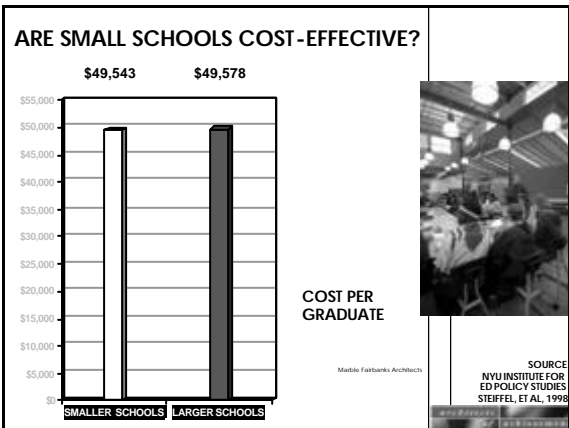


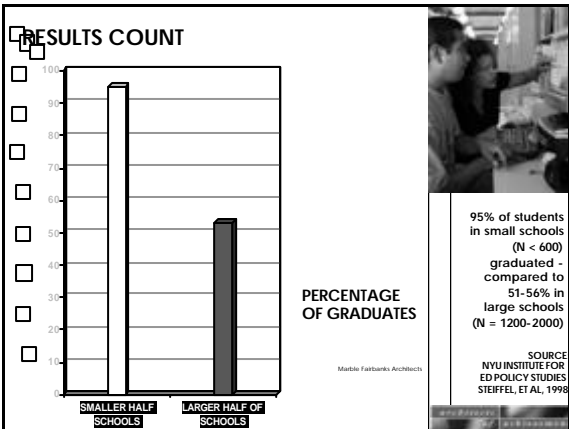










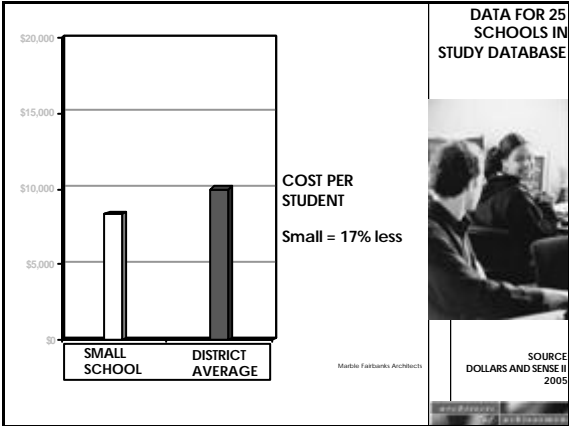


WHAT ABOUT CONSTRUCTION COSTS?

DATA FOR 3471 SCHOOLS IN STUDY DATABASE

- Cost per square foot is no higher in smaller than in larger schools
 - Cost per sf significantly lower for smaller high schools
- Square feet per student consistently higher among smaller schools
 - Partnerships within the community for sharing reduces the size and cost, e.g., shared amenities

Source: Dollars and Sense II, 2005



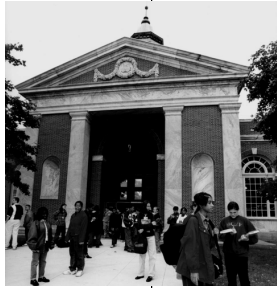


henry ford academy

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Rich Educational Environment
1/3 the Cost of a Conventional School

henry ford academy



9th Grade Entry

concordia

henry ford academy

12th Grade Box Cars

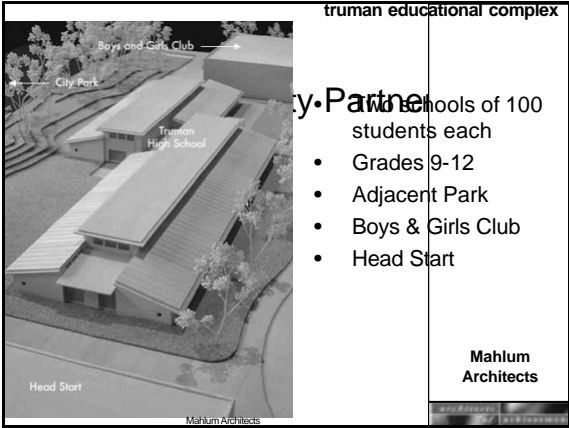


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truman educational complex

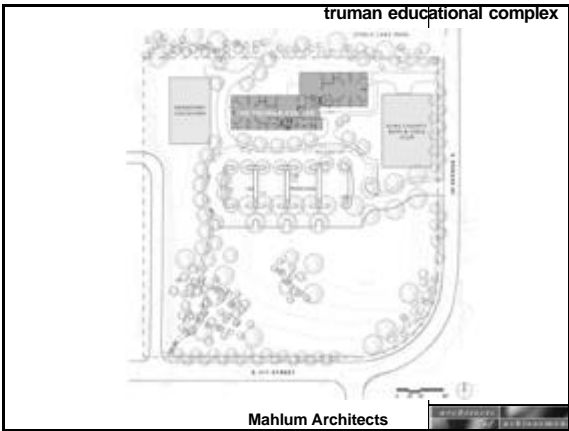


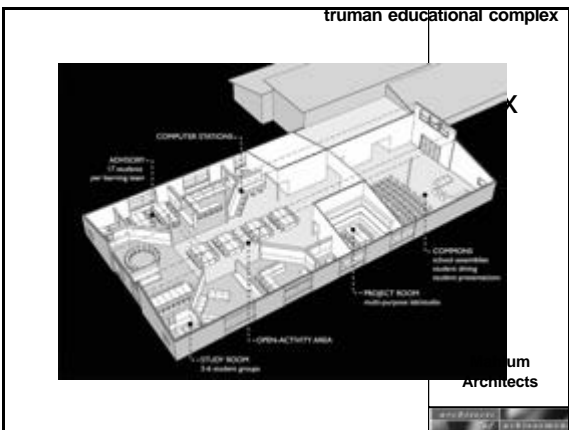
Mahlum
Architects



- City-Partner Schools of 100 students each
- Grades 9-12
 - Adjacent Park
 - Boys & Girls Club
 - Head Start

Mahlum Architects





truman educational complex



Mahlum Architects

tacoma school of the arts



Tacoma, WA

tacoma school of the arts

- Housed in several historic buildings in downtown Tacoma
- Takes advantage of the city's cultural institutions
- Students travel to classrooms located throughout the downtown core



Tacoma, WA

tacoma school of the arts

Small Art School
Downtown Teaching/Learning Locations

Tacoma, WA

inter district downtown school

- Minneapolis, MN
- 9 school districts
- 600 students, K-12
- Shared with the community
 - YWCA/YMCA
 - Arts Center
 - Library
 - Staff Lounge

Curlingham Architects

inter district downtown school

Multi-age houses

6 teams of 100 students each

K-5, 5-9, 9-12

Can be organized horizontally or vertically

Curlingham Architects

CONSIDER

- Nontraditional facilities for schools
- Storefronts
- Churches
- Warehouse spaces
- Business parks

aviation high school

College Prep, Grades 9-12

Seattle, WA * Near Boeing Field

aviation high school

Converted a Vocational training center

Share the campus with a community college

aviation high school



Partnerships with
 Museum of Flight
 South Seattle Comm College
 Calvin Flying
 Microsoft Flight Simulation

A mentor for each kid

Bassetti Architects

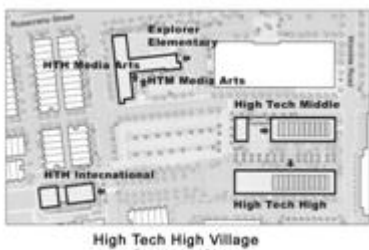


TRUE OR FALSE?
 SCHOOLS SHOULD BE MORE LIKE A
 WORK PLACE

Bassetti Architects

high tech high complex

CONVERTED NAVAL BASE



High Tech High Village
 Point Loma, CA

David Stephen Design

Schools and Mixed Use Development

high tech high complex



David Stephen & Stichler
Architects, San Diego

high tech high complex



Workstation Suites

high tech high complex



Galleria

high tech high complex



Seminar Rooms



high tech high complex



Cisco Lab

Robotics Lab



high tech high los angeles

- 325 students, 9-12
- Embedded in Birmingham High School campus
- Converted old print and auto shop
- Classrooms, labs and work areas surround a "town square" in the building

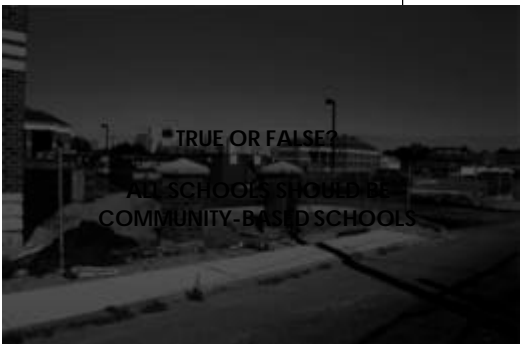


David Stephen with Berliner & Associates

high tech high los angeles

- Flexible classrooms with adjacent project labs
- Project-based "great room" models a workplace environment for independent study
- Shaded study gardens





COMMUNITY GOALS

schools as centers of community



1. enhance learning for all students
2. schools as centers of community
3. involve all stakeholders
4. maximize available resources
5. health and safety
6. flexibility

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COMMUNITY GOALS

new urbanism

- walkable communities
- people oriented
- low scale
- quaint and distinctive
- landscaping
- low impact auto and transportation system



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COMMUNITY GOALS

healthy cities

- integration
- systemic planning
- systemic design
- synergy



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GOOD SCHOOL DESIGN

- Small learning communities
- Flexible spaces and furnishings
- Variety and adaptability
- Collaboration and community
- Projects and inquiry
- Integrated form and function



Better Planning → Better Design

WHY NOT?

Public schools did not exist forever. They did not come out of the forehead of a Greek or Roman god. They were contrived by ordinary men and women... and for just this reason, they can be rebuilt or reconceived, dismantled or replaced, not by another set of gods, but by plain men and women... You and I can leave school as it is, change it slightly, or else we can turn it inside out and upside down.



SOURCE:
KOZOL J.

- 666666666666666666

6 CONTACT INFO

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designing schools
that work for
ALL students
