

Lessons Learned From U.S. National Parks:

Cars, Parks, and “Visitor Capacity”

Ethan Carr
University of
Massachusetts



Strokkur, along the Golden Circle , Iceland

Old Faithful, along the Grand Loop, Yellowstone NP





Gulfloss, Golden Circle



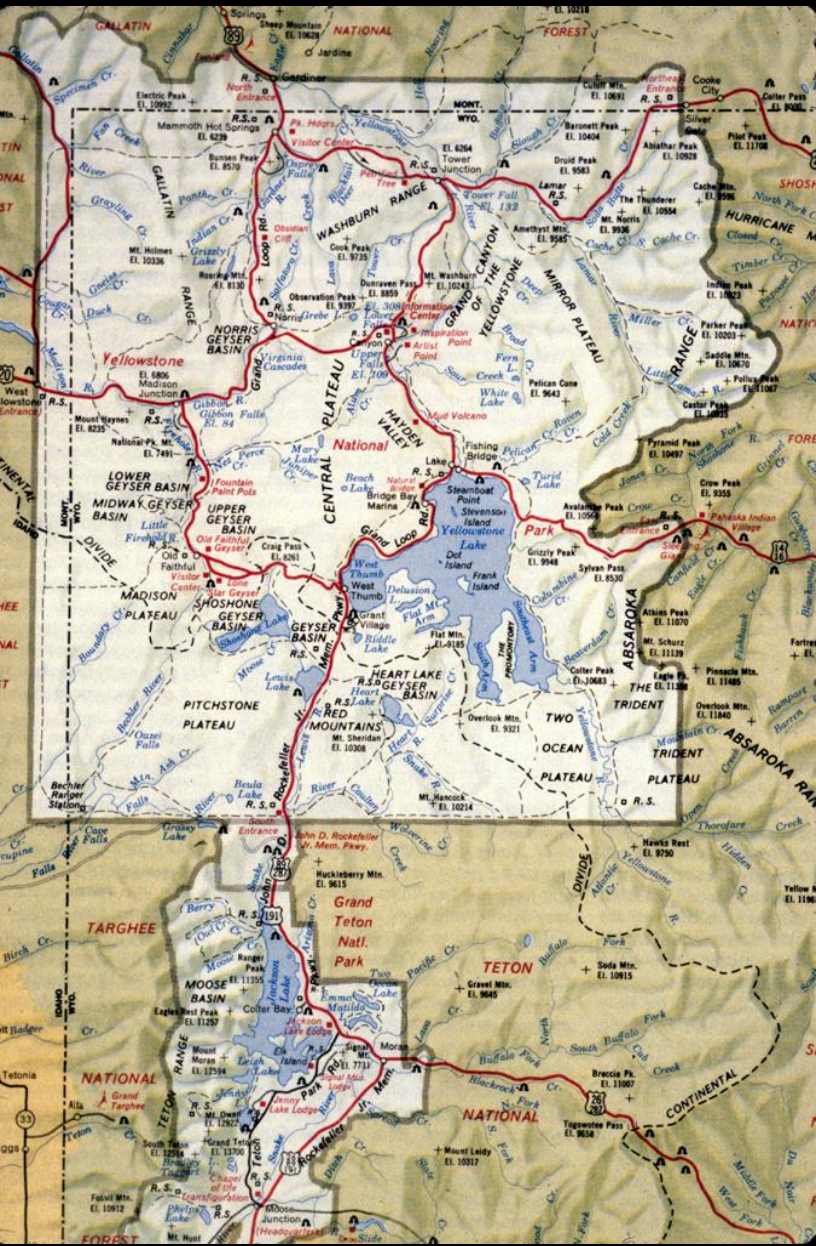
Lower Falls of the Yellowstone, Grand Loop



Thingvellir National Park



Golden Gate, Yellowstone National Park

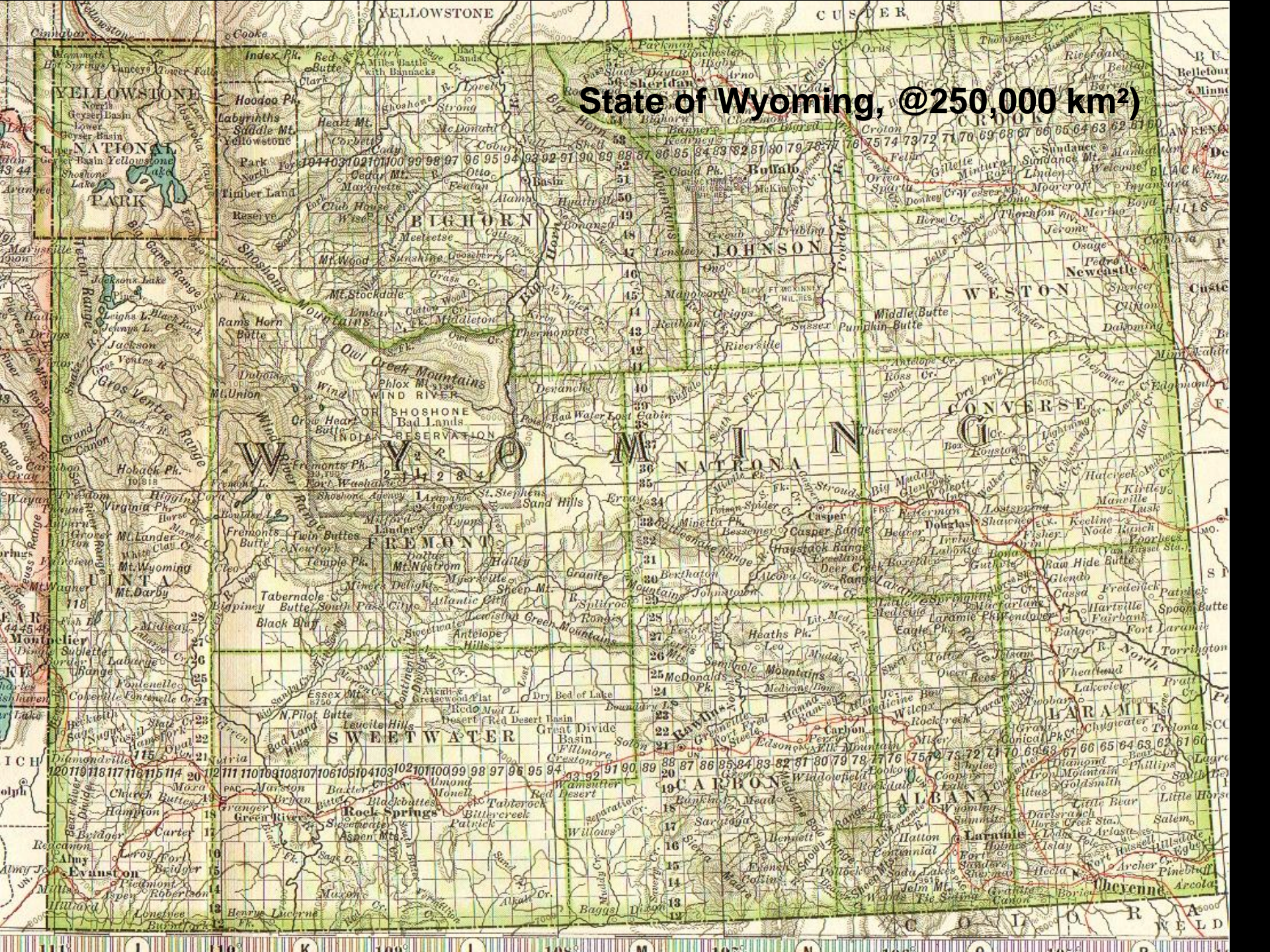


Grand Loop (main visitor automobile route)
Yellowstone NP, Wyoming, @ **225 km**



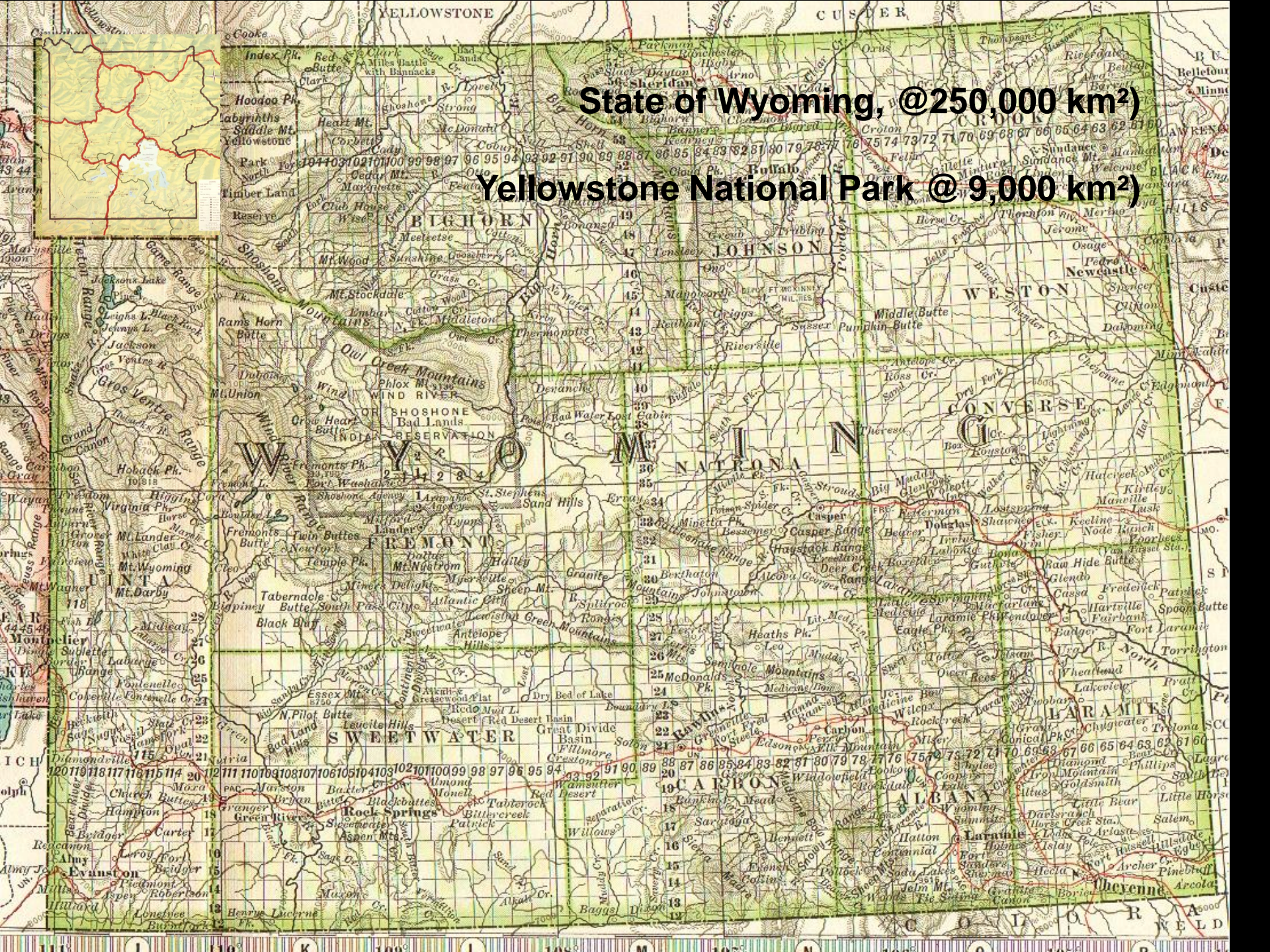
Golden Circle, southwestern Iceland, @ **300 km**

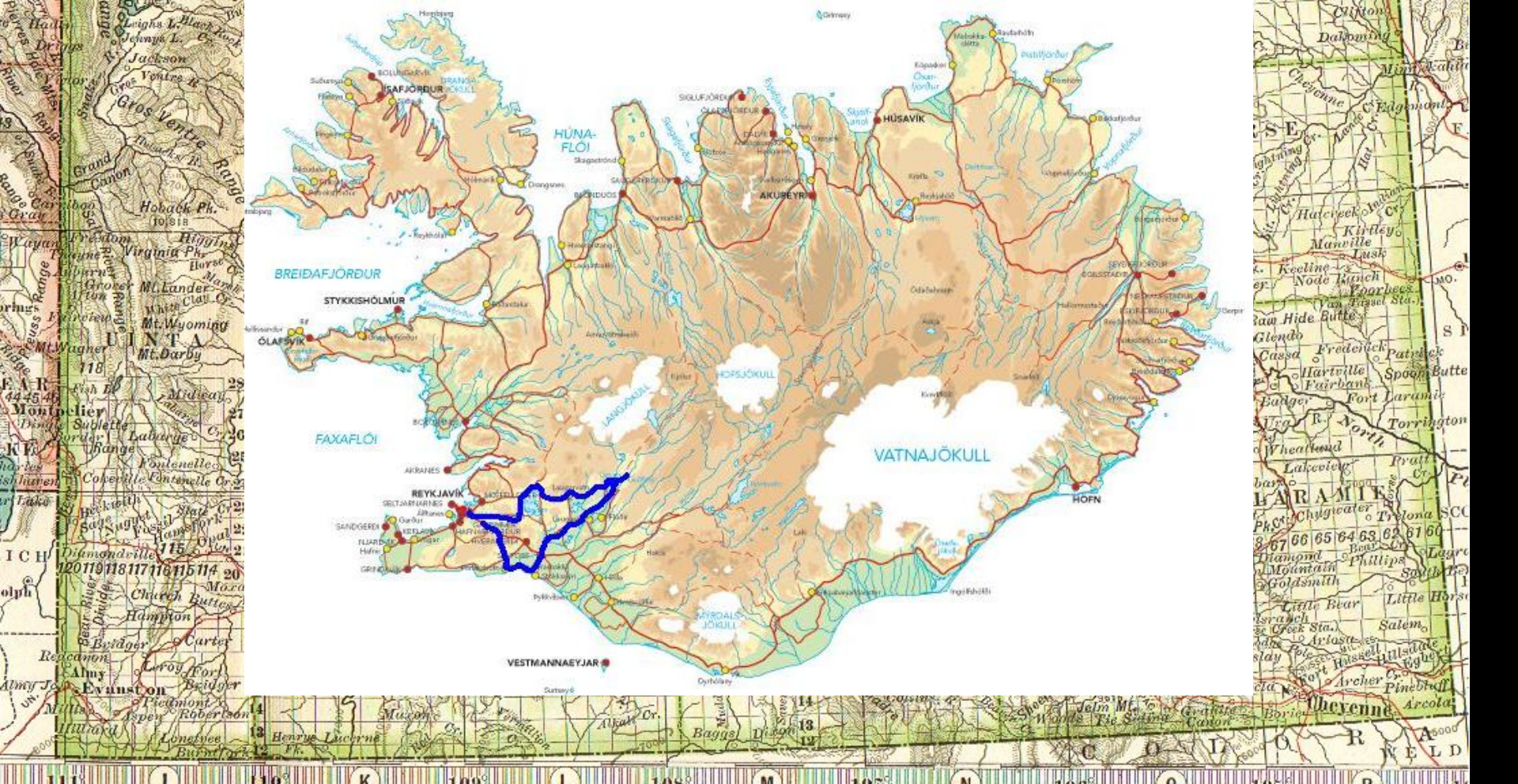
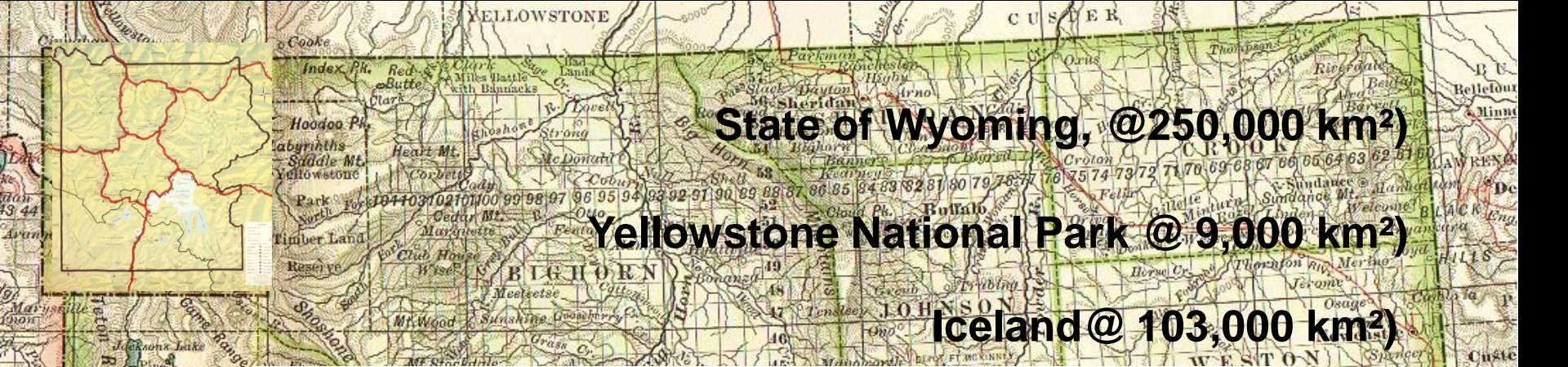
State of Wyoming, @250,000 km²

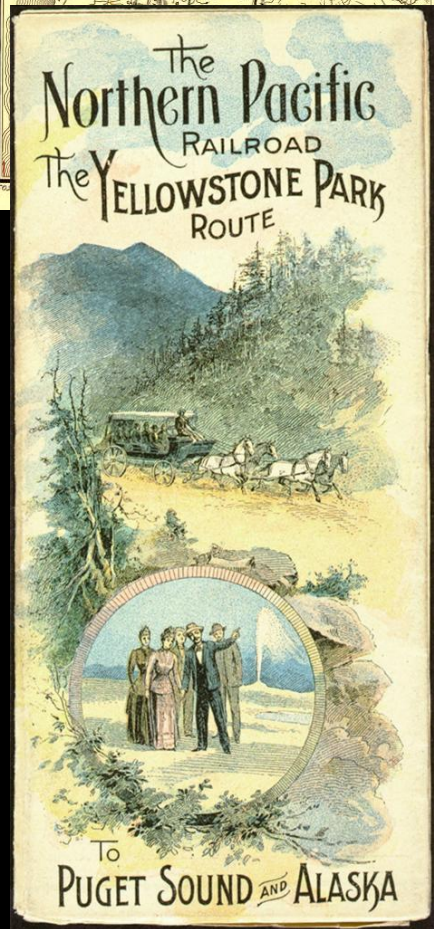
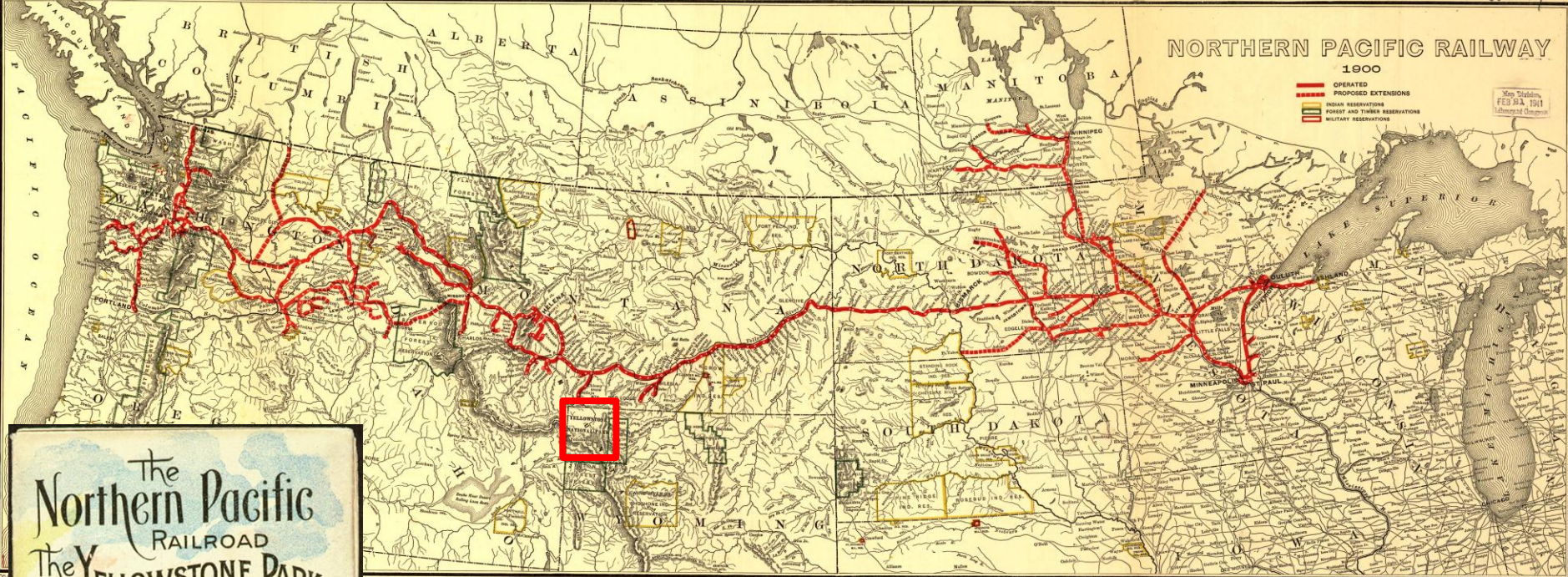


State of Wyoming, @250,000 km²)

Yellowstone National Park @ 9,000 km²)



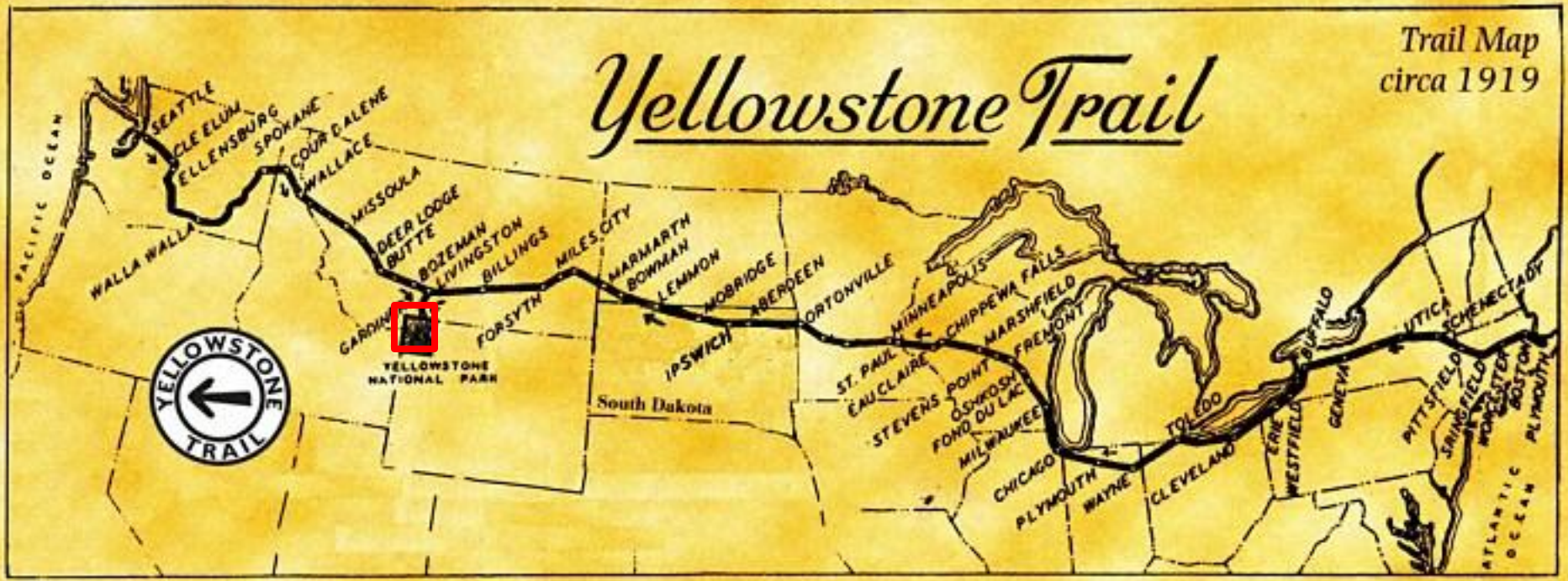




Northern Pacific Railroad reaches Yellowstone in 1883

Grand Loop road system first finished in 1905



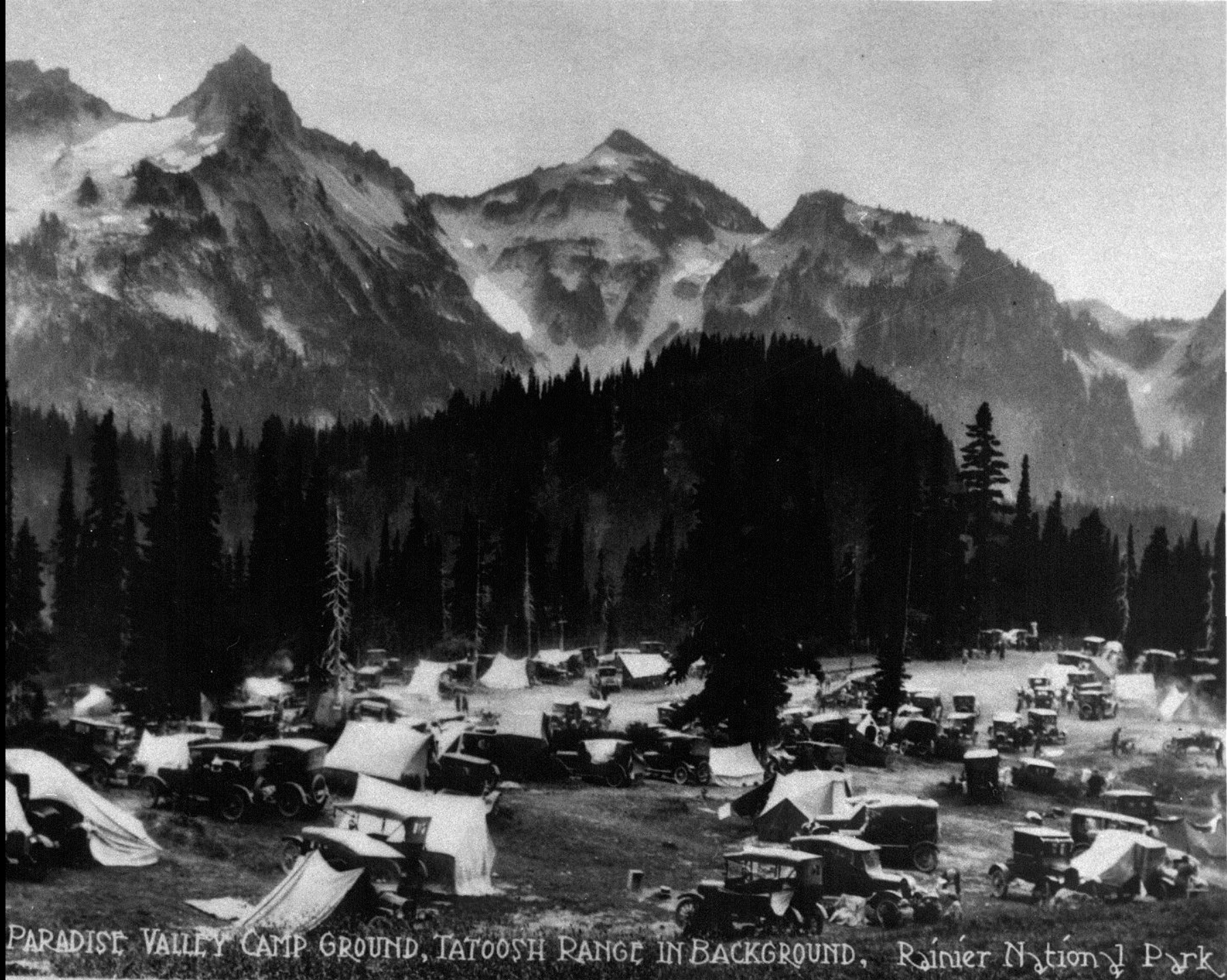


Trail Map
circa 1919

Yellowstone Trail

Yellowstone Trail, an early popular automotive route (above) and cars in Yellowstone ca. 1906





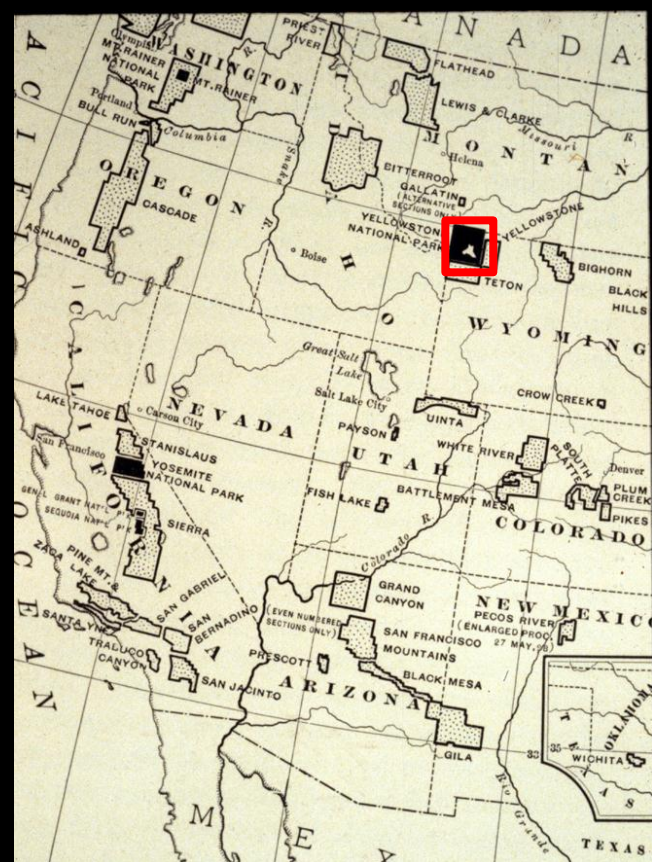
PARADISE VALLEY CAMP GROUND, TATOOSH RANGE IN BACKGROUND, Rainier National Park



Automobile Camping in Yosemite Valley

1916 “Organic Act” creating U.S. National Park Service and stating the PURPOSE of national parks:

Conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.



Map from John Muir's, *Our National Parks*, 1904 (left)

"Park-to-Park Highway" proposal, 1915 (right)



NATIONAL PARK SERVICE

Abbreviations for National Park System Areas

NPS	National Park	NM	National Monument	NH	National Historic Site
NB	National Battlefield	NHS	National Historic Shrine	NM	National Monument
NSE	National Seashore	NH	National Historic Site	NM	National Monument
NS	National Shrine	NH	National Historic Site	NM	National Monument
NM	National Monument	NH	National Historic Site	NM	National Monument
NH	National Historic Site	NM	National Monument	NH	National Historic Site

PACIFIC OCEAN



Puerto Rico and the Virgin Islands

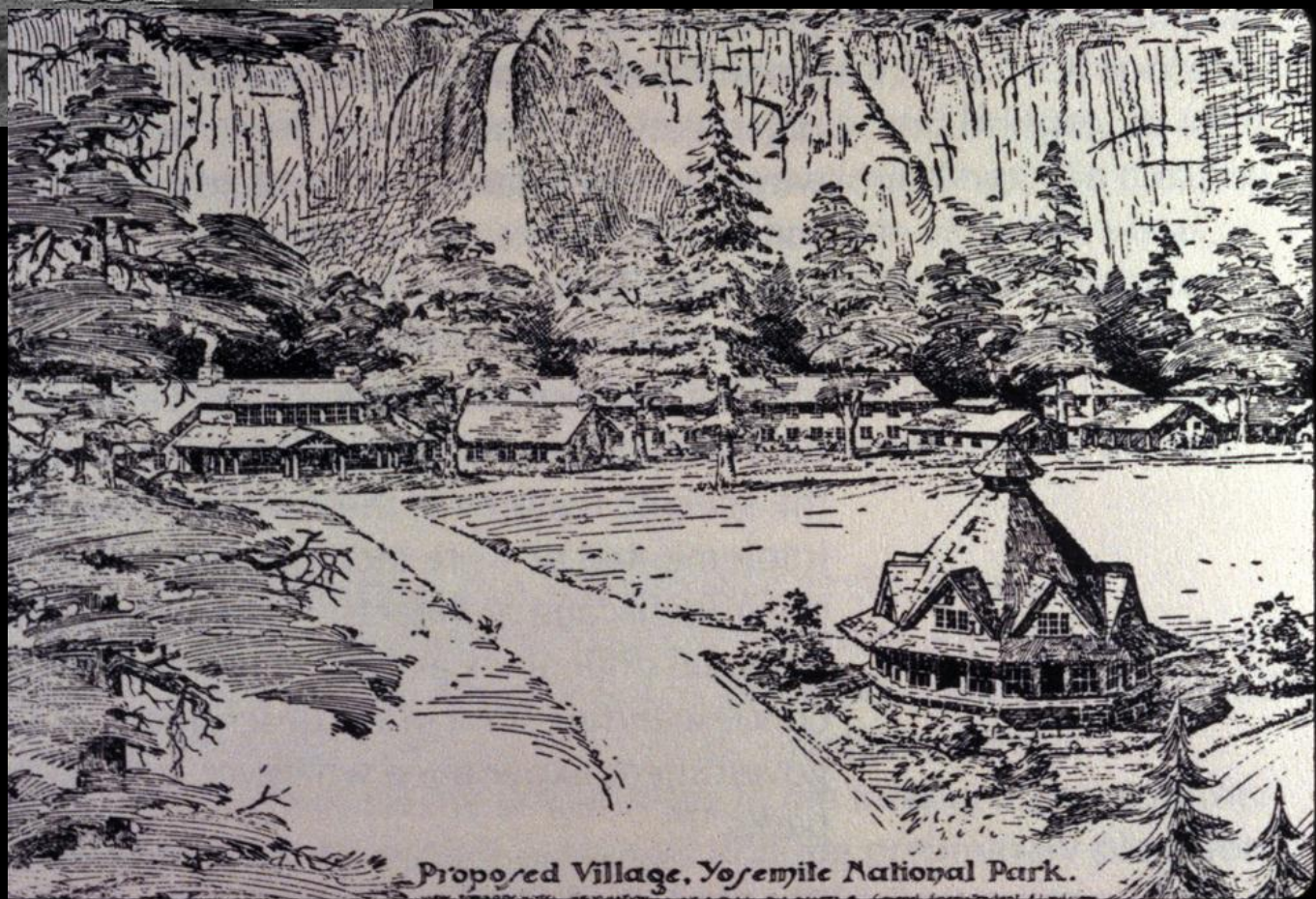


- HAWAII**
 - NIHOA NP
 - KAUAI NP
 - OAHU NP
 - MOLOKAI NP
 - HONOLULU NP
 - MAUI NP
 - KAHOOLAWE NP
 - LANAI NP
 - KAHOOLAWE NP
 - HAWAII NP
- AMERICAN SAMOA**
 - NATIONAL PARK OF AMERICAN SAMOA
- GUAM**
 - NATIONAL PARK OF GUAM

CARIBBEAN SEA

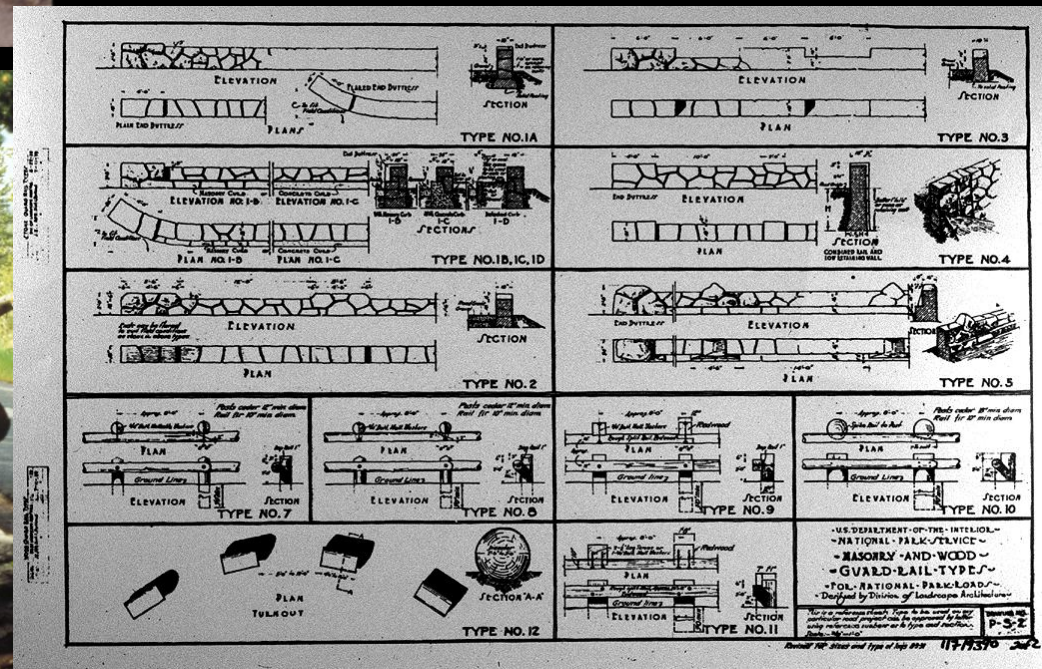
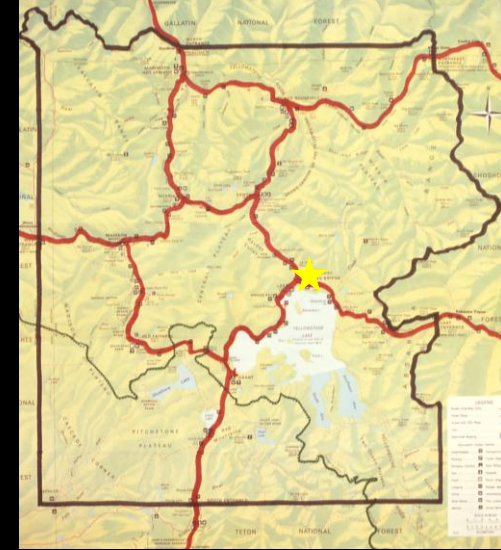


“Old Village,” Yosemite Valley, Yosemite National Park, California, in the 1920s, which was built “ad hoc” by concessioners

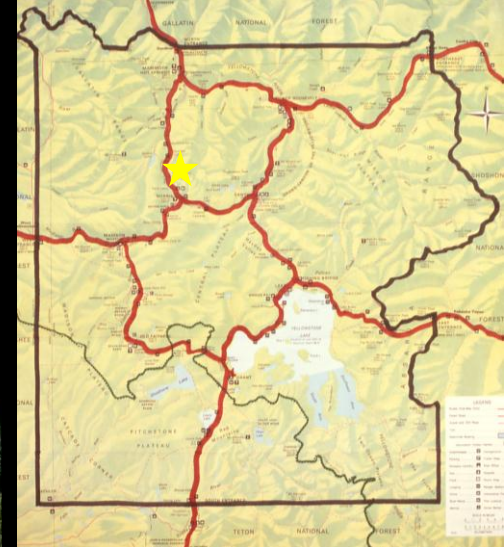
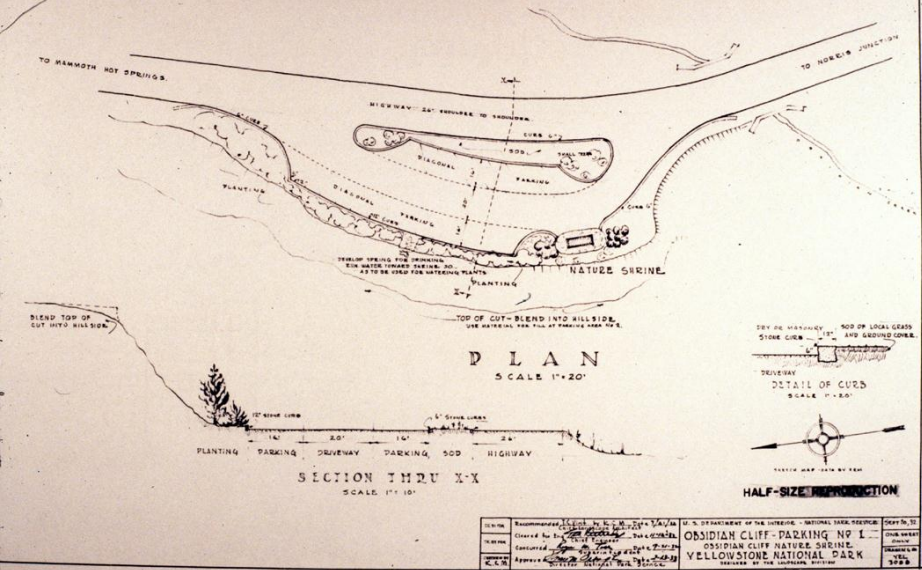


Proposed new village (to replace the scene above), designed by landscape architect Mark Daniels in 1914 (unbuilt)

Proposed Village, Yosemite National Park.



National Park Service construction details for guard rails, retaining walls at Yellowstone, 1920s-30s



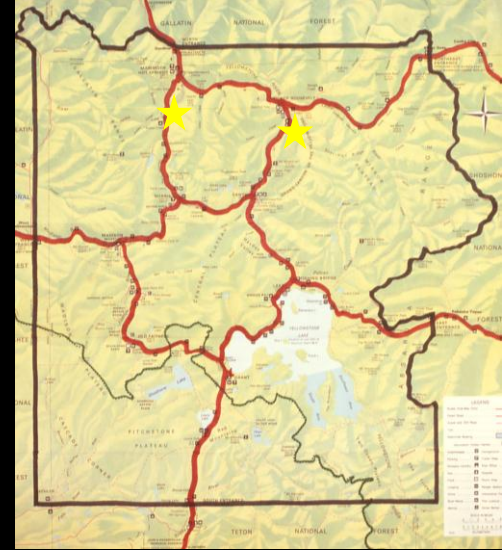
Obsidian Cliff "Nature Shrine," Yellowstone, designed by NPS landscape architects in the 1920s (roadside interpretation of volcanic geology)

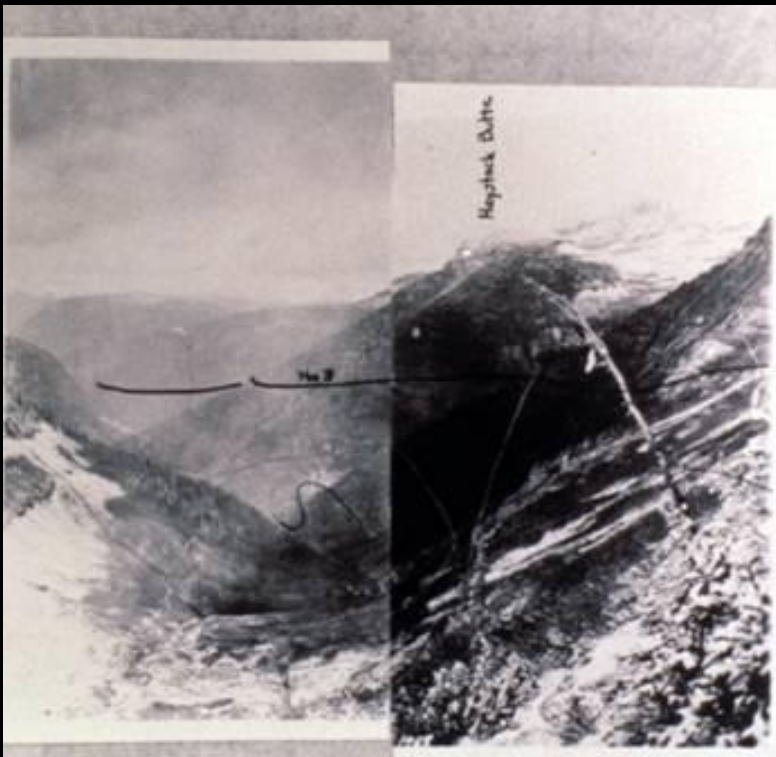




View of Yellowstone Grand Loop road from Tower Falls overlook (1930s, left)

Golden Gate viaduct, Yellowstone Grand Loop (1990s, right)





(1235-9) Looking northwest from Johns Flat, West side.
October 10, 1924.

Route No. 1, surveyed 1918 (approx.) 45° grades,
30 ft. radius curves.

Route No. 2, not surveyed, 45° grade and 100 ft.
radius curves.

Route No. 3, surveyed 1924. 45° grade and 100
and 200 ft. radius maximum curvatures.



Going-to-the-Sun Highway, Glacier National Park, Montana

The approach to Logan Pass in a 1927 planning diagram, and a view of the site today



Going-to-the-Sun Road, Glacier National Park, Montana, 1927-1939



Going-to-the-Sun Road, Glacier National Park, Montana, 1927-1939



Going-to-the-Sun Road, Glacier National Park, Montana, 1927-1939



Central Park, New York
 (established as park 1853, designed by
 Frederick Law Olmsted and
 Calvert Vaux 1857-1873)



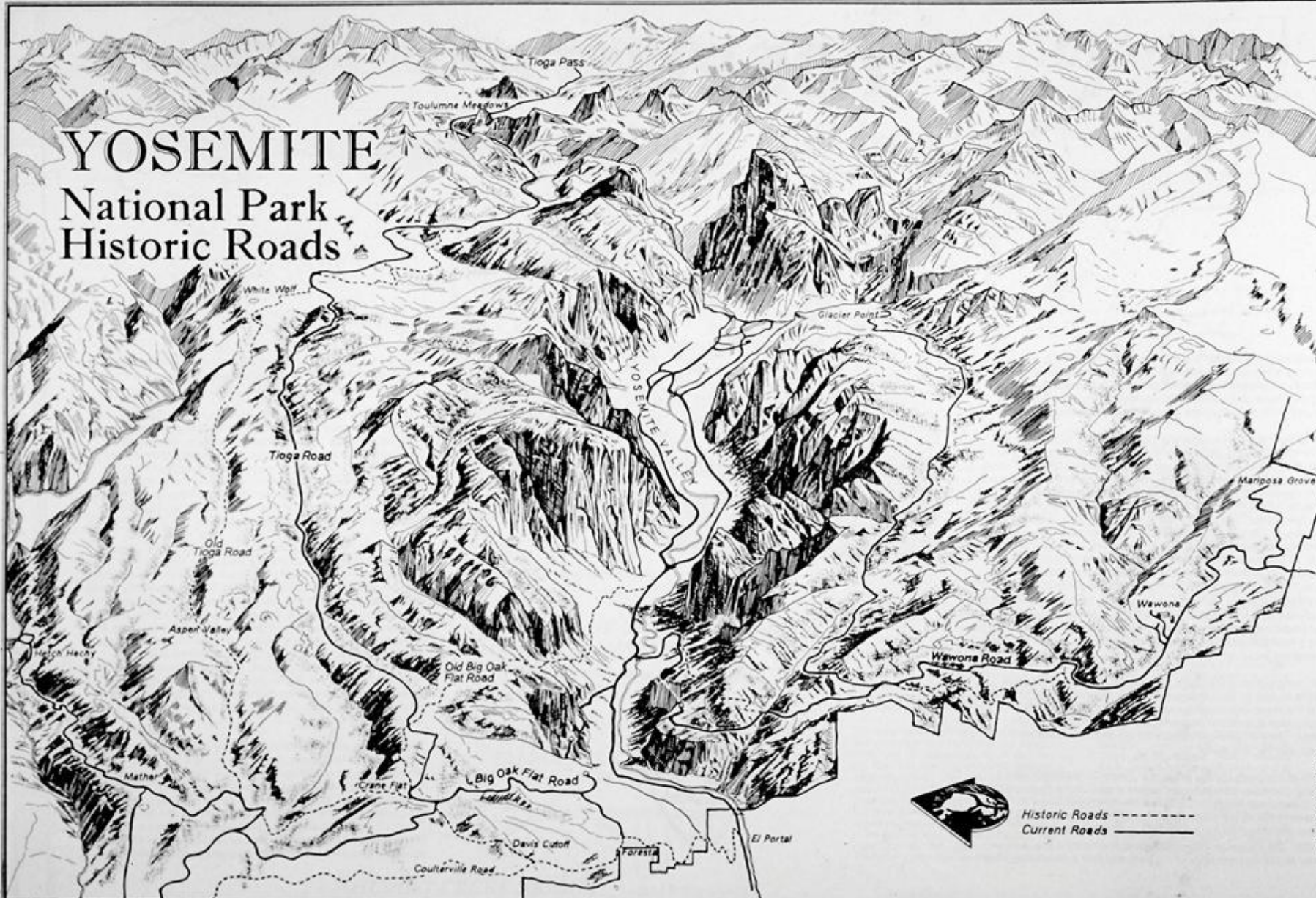
THE DRIVE—CENTRAL PARK—FOUR O'CLOCK.



Yosemite Valley, California
 (established as park 1864, planned by
 Frederick Law Olmsted, 1865)

YOSEMITE

National Park Historic Roads



Historic Roads ———
Current Roads ———

ILLUSTRATED BY: Todd DeJure, 2001
NPS ROADS & BRIDGES
RECORDING PROGRAM
WWW.NPS.GOV/ROADS/RECORDING

YOSEMITE VICINITY

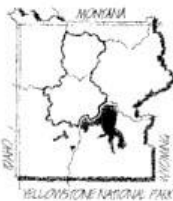
YOSEMITE NATIONAL PARK ROADS
MARIPOSA & TUOLUMNE COUNTIES

SHEET
HISTORIC AMERICAN
ENGINEERING RECORDS
CALIFORNIA 2" = 1"

1984

EXPERIENCING WONDERLAND

A GRAND TOUR OF YELLOWSTONE NATIONAL PARK



Traveling along the Grand Loop Road of Yellowstone National Park, visitors encounter many interesting and magnificent views of both the natural and built environment.



These vignettes representing scenic features and historic structures throughout the park reflect only a few of the many wonders and varied landscapes that Yellowstone has to offer.



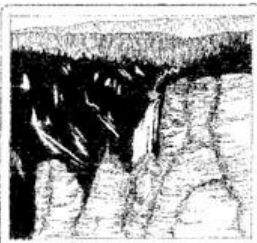
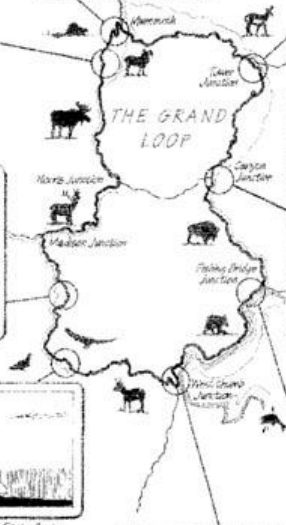
THE 1000000'S / SILVERGATE



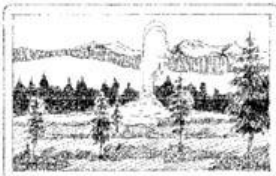
TOBACCO at MAMMOTH HOT SPRINGS



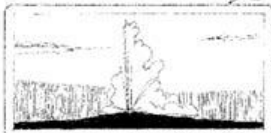
TOWER FALLS below OVERHANGING CLIFF



LOWER FALLS in GRAND CANYON of the YELLOWSTONE



WHITE DOME GEYSER in the Lower Geyser Basin



OLD FAITHFUL INN and GEYSER in the Upper Geyser Basin



LAKE HOTEL



FISHING CREEK at WEST BRASS



Forest P. Higgins, 1999

YELLOWSTONE NATIONAL PARK

APPENDIX TO YELLOWSTONE NATIONAL PARK ROADS & BRIDGES

SCALE

2" = 10'

1:100,000

WY-24

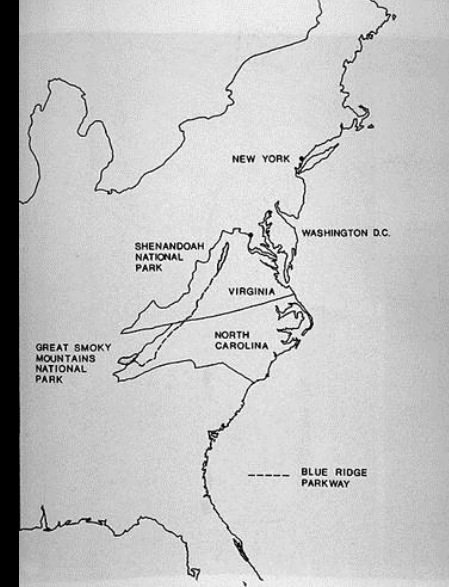
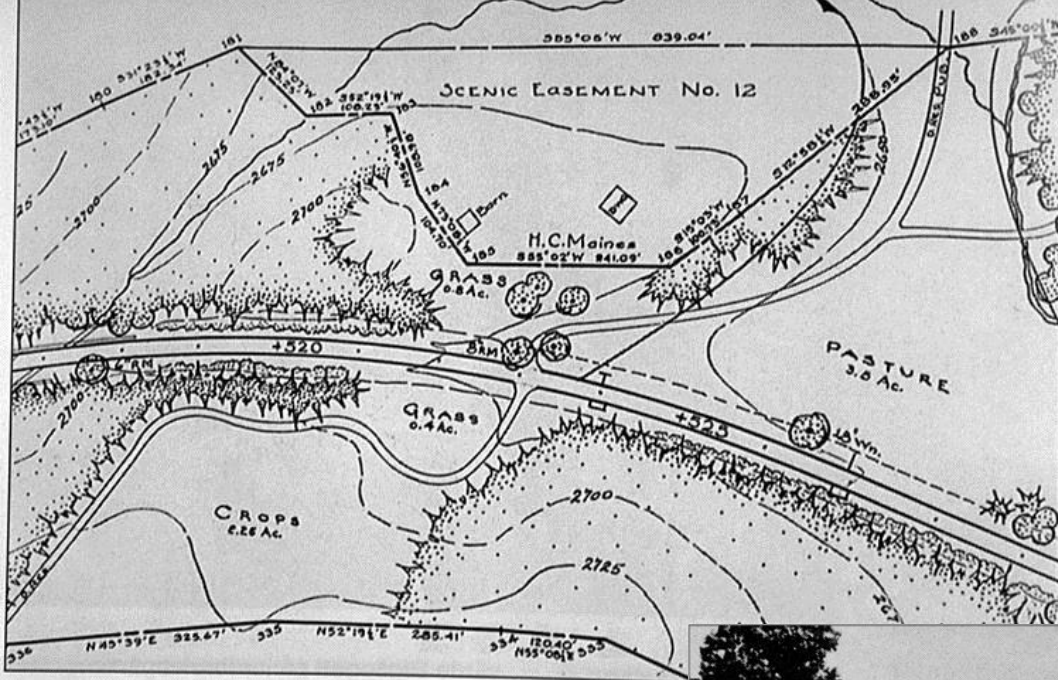


Narada Falls Bridge and park road, Mount Rainier National Park (Washington), 1920s-30s



Generals Highway, Sequoia and Kings
Canyon National Parks (California),
1920s-30s (above)

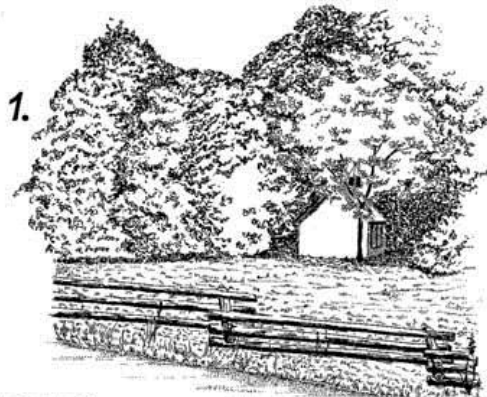
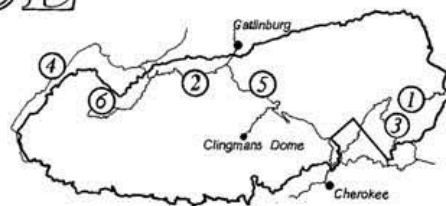
Generals Highway, Sequoia and Kings
Canyon National Parks (California),
1920s-30s (right)



Blue Ridge Parkway
(Virginia and North Carolina)

MOTORIST EXPERIENCE

The roads in Great Smoky Mountains National Park offer a wide range of experiences for the motorist. Scenic overlooks and planned vistas were designed throughout the park to direct the visitor's eye. The roads travel over a variety of topography and provide differing views ranging from; gentle farmlands, deep river valleys, climbing mountain roads, steep gravel switchbacks, sweeping ridgetops, historical and natural points of interest.



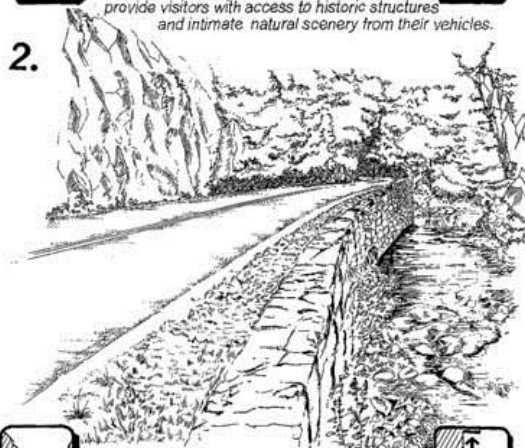
1.



Points of Interest - Several roads are designed to showcase specific natural and historical points of interest. Roads such as Cataloochee provide visitors with access to historic structures and intimate natural scenery from their vehicles.



2.



Deep River Valleys - The Little River and Laurel Creek roads twist and turn between narrow gorge walls and offer only limited views of the scenic river and walls above. The road, carried by a revetment wall, is dimly lit as the tree canopy is dense and the gorge walls are tall.



3.



Steep Switchbacks - Rich Mountain Road and other similar gravel routes maintain the character of historical pioneer travel through the Smoky Mountains. The single-lane roads follow the topography of the land up, over and around ridges in a series of switchbacks.



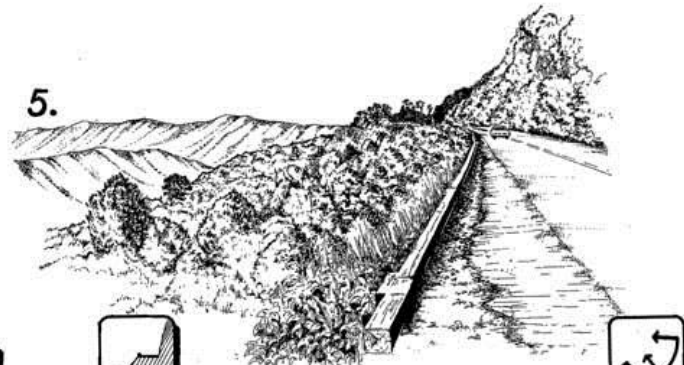
4.



Sweeping Ridgetops - Roads such as the Foothills Parkway follow ridges which offer gentle curving alignments and wider roadways. Broad views of distant mountains and valleys are presented through areas cleared of trees.



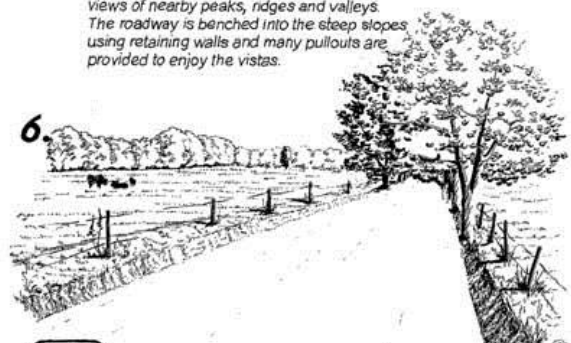
5.



Mountain Climbs - The Newfound Gap Road clings to the side of mountains through most of its ascent with dramatic views of nearby peaks, ridges and valleys. The roadway is banched into the steep slopes using retaining walls and many pullouts are provided to enjoy the vistas.

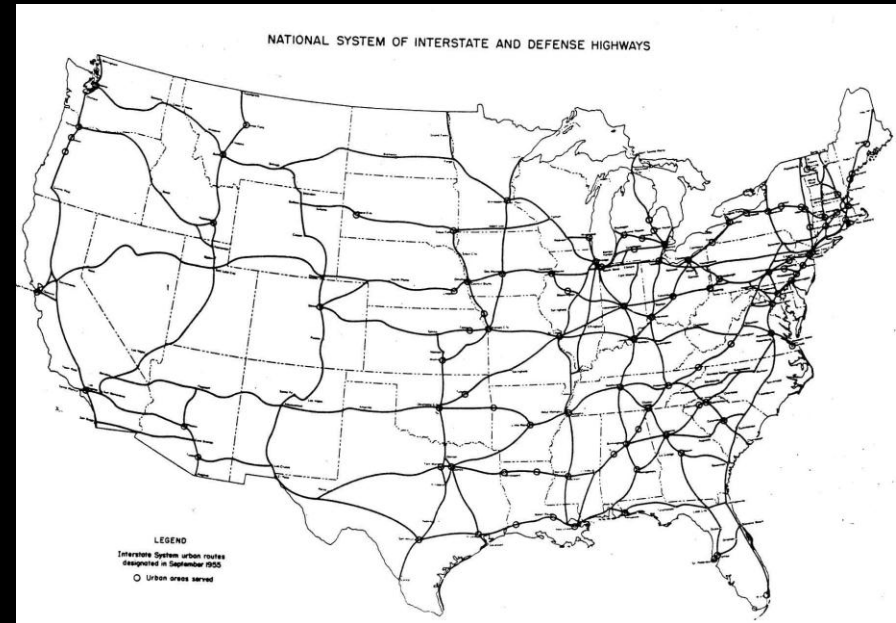
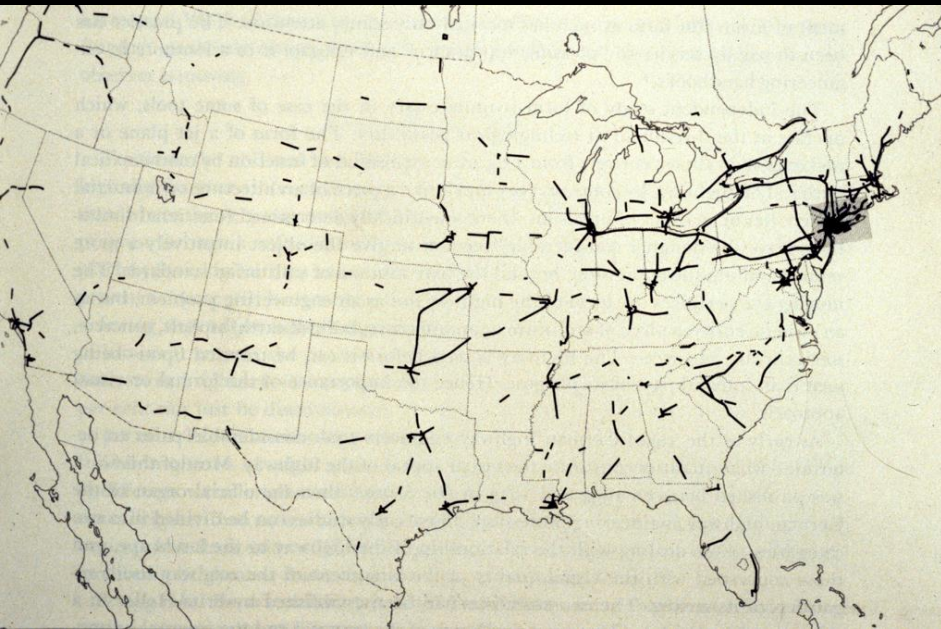


6.

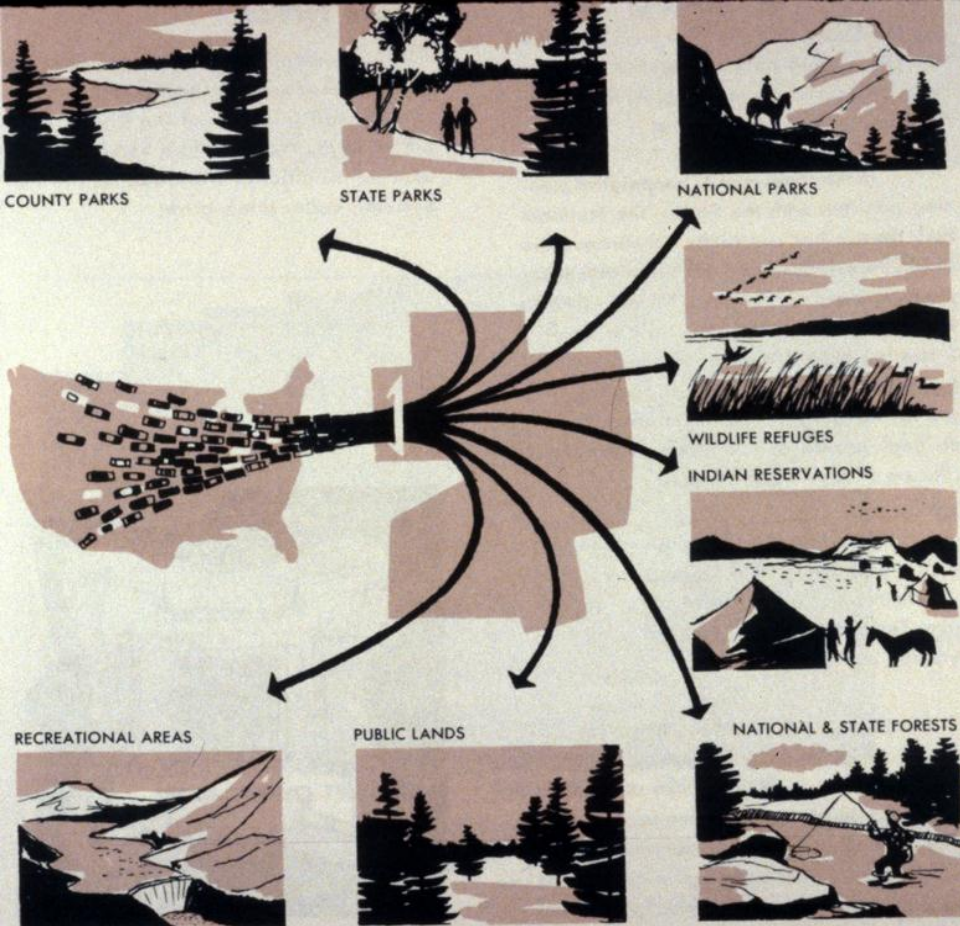


Gentle Farmlands - Areas such as Cades Cove and Cataloochee present the historical farmsteads of pioneers and the open landscapes which they cleared. The Cades Cove Loop meanders along the edge of pastureland and the forest.





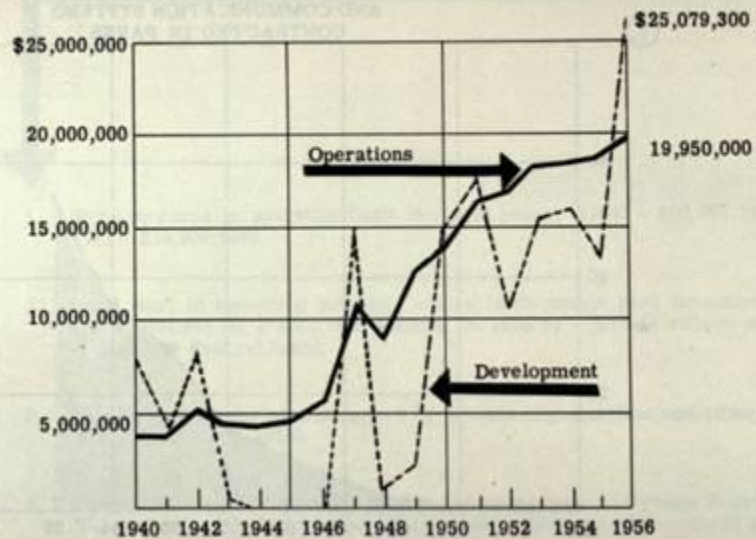
Progress of U.S. Interstate Highway System construction, 1940s-1960s



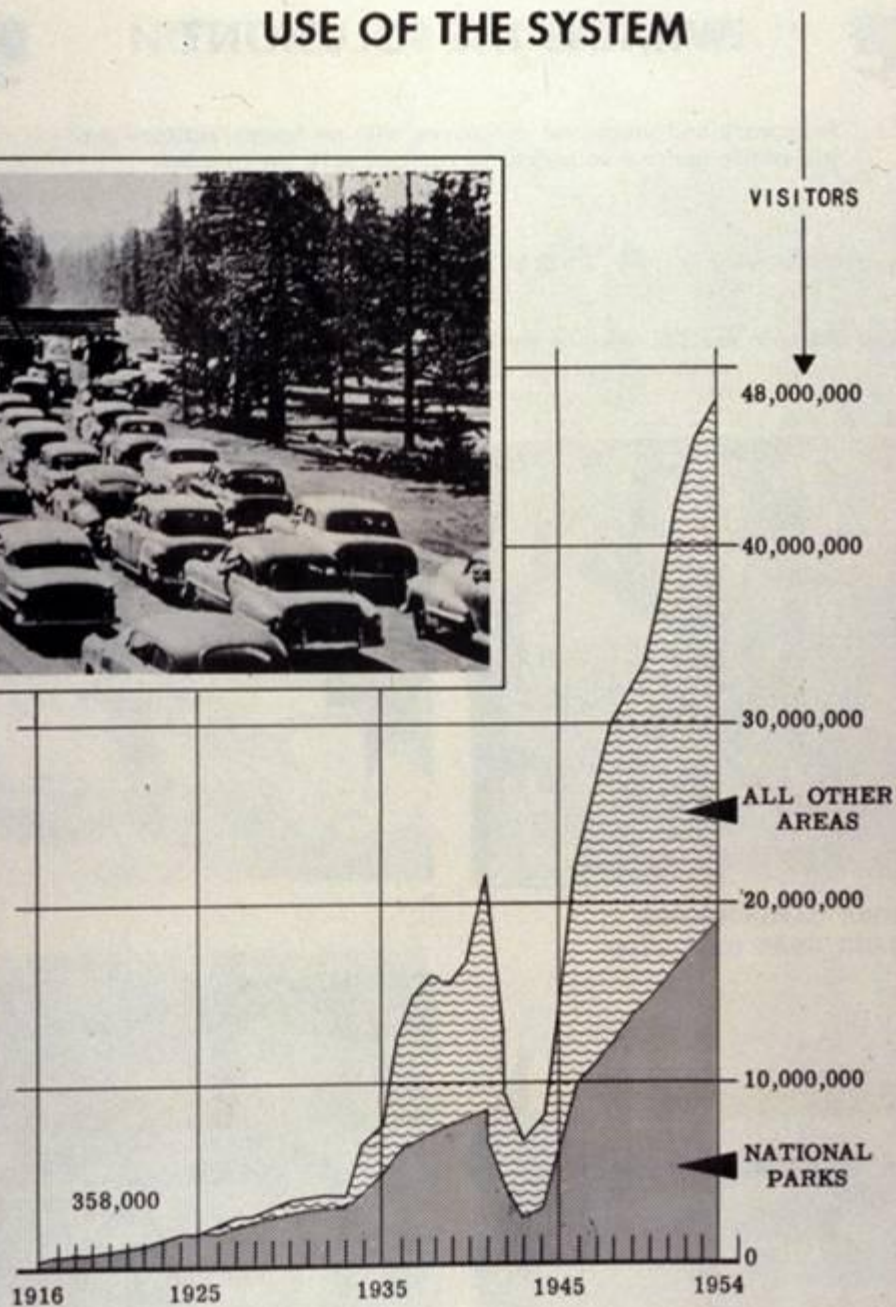
Traffic in Yellowstone National Park, Wyoming, ca.1955

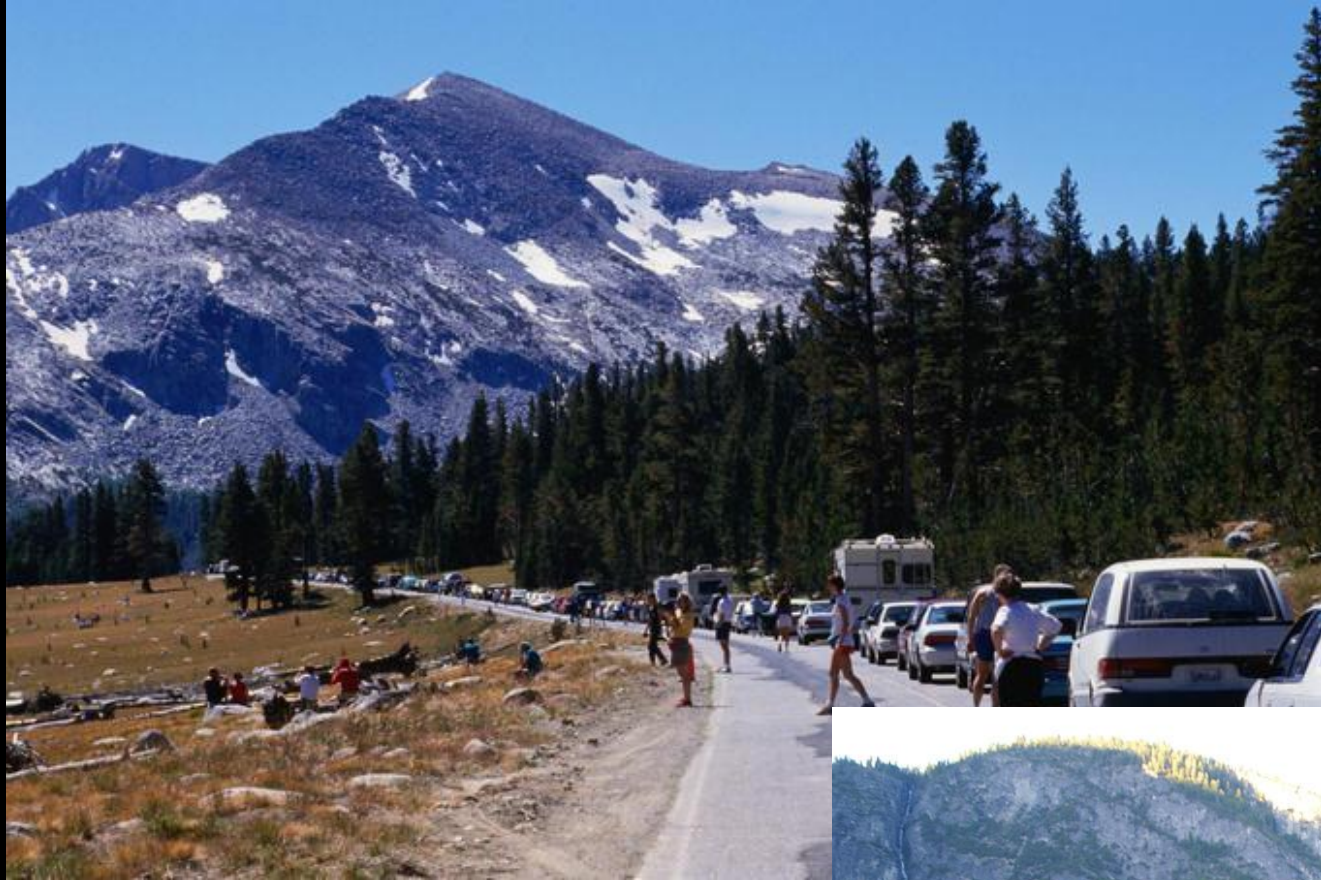
“The dilemma of our parks...”
 Newton Drury, NPS Director, 1949

FUNDS APPROPRIATED



USE OF THE SYSTEM





Traffic in Yosemite National Park, California,
today



“MISSION 66”

- One billion dollars spent between 1956 and 1966 to modernize and expand the U.S. national park system;
- Overall Purpose: to allow great increase in visitors (in cars) while (hopefully) protecting park landscapes—“Enjoyment without Impairment”;
- Capacity increased through construction: widening roads, enlarging parking lots and campgrounds, building visitor centers, etc.;
- Intended (in many cases) to remove overnight lodges and create “day use” destinations in parks (visitor centers, picnic areas, overlooks, etc.) relocated to less “sensitive” areas;
- Success or failure? Still debated! But some good, some bad...



Carlsbad Caverns National Park Visitor Center, New Mexico



Oak Creek Visitor Center, Zion NP, Utah



Panther Junction Visitor Center, Big Bend NP, Texas

MISSION

66

in action





Tioga Road, Yosemite National Park, and contemporary editorial cartoon

“Mission 66”: SUCCESS OR FAILURE?

Expanded the national park system (new parks, new types of parks)

Overemphasis on “recreation” not preservation and appreciation

Increased funding and professional capacity of NPS

Did not integrate science and scientists adequately

Prevented more widespread destruction, considering numbers of tourists involved

Created undesirable new development (road widenings, motel complexes)

Kept the park system “public” in meaningful ways

Limited public experience to “windshield tourism” for TOO MANY PEOPLE AND CARS



Denali Road, Denali National
Park, Alaska

As begun (left) and as
“finished” (above)

Some Lessons of U.S. National Park History

- The status of all U.S. national parks as a **system** of protected landscapes has greatly helped protect them from inappropriate development;
- Centralized **development standards and policy** have been vital, and they have been changed when road widening or other development went too far;
- Above all, **road design** standards (capacity and speed) have enormous implications for visitors' **landscape experiences**...

designing the parks



Phase 3: Refining the Design Principles

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Principles for Public Park Planning and Design

» Principle Concepts

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Preliminary Design Principles

Six design principles emerged from the rich and varied discussion that took place last year during Designing The Parks Part II at Cavallo Point. They are:

Park planning and design must demonstrate:

- Reverence for place;
- Engagement of all people;
- Expansion beyond traditional boundaries;
- Sustainability;
- Informed decision-making;
- An integrated research, planning, design, and review process.



designing the parks

Phase 3: Refining the Design Principles

Search this site:



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What's New

For the most recent updates, check our 'Latest News' tab!!

Visit our Forum, on the home page and comment on our new principles!!

Just uploaded a new Case Study under 'Resources.' Check it out!!

Home » Principles » Communicate Clearly »

NEW PRINCIPLES!!! Tell us what you think

With the wonderful completion of our newest award program, Parks for the People: A Student Competition to Reimagine America's National Parks, we have released our newly refined design principles! These new principles have been created by reexamining the draft principles from 2008, and really analyzing what we have learned from our awards programs. The Designing the Parks Awards Winners and Parks for the People student proposals were incredibly inspiring and ultimately forced us to take another look at condensing and improving our previous principles. Here is what we have:

Park Planning and Design Principles:

Respect Place

Engage All

Model Sustainability

Design Beyond Boundaries

Communicate Clearly

We would love to get some feedback, so please feel free to comment with suggestions!

Login or register to post comments

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Submitted by ThomasWALTON1976 on Thu, 2013-05-02 00:50.

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<http://ciprorxpharma.com/#yqaqdsko> cheap cipro

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Refined Design Principles

Our newly refined Park Planning and Design Principles!!!

- Respect Place
- Engage All
- Model Sustainability
- Design Beyond Boundaries
- Communicate Clearly

Please visit our Forum on the home page to leave any comments on these new principles!

Then (1966)

Less diverse nation, less diverse public

Growing size of visiting public

Threats inside park borders: public “loving parks to death”

Automotive public tourism accommodated

Passive public experience (through a windshield?)

Now (2016)

More diverse population (but often not in national parks!)

Flat or declining visitation (?)

Threats outside borders: climate change, habitat loss, sprawl

Alternative transportation and experience sought

Reclaimed, more direct relationship between public and park landscapes sought

Then (1966)

No public participation, no environmental “compliance”

Almost 100% public funding

No public process; centralized control of planning, design

Perceived monolithic public and “public interest”

Single interpretive narrative to serve “the” public

Now (2016)

Lots of public participation—resources better protected

Partnership funding/user fees, in addition to public funding

Local initiative, meetings, partnerships, consultants

Multiple publics, interests, sources of funding

Multiple and layered meanings for diverse publics

BEYOND the “Visitor Center”?

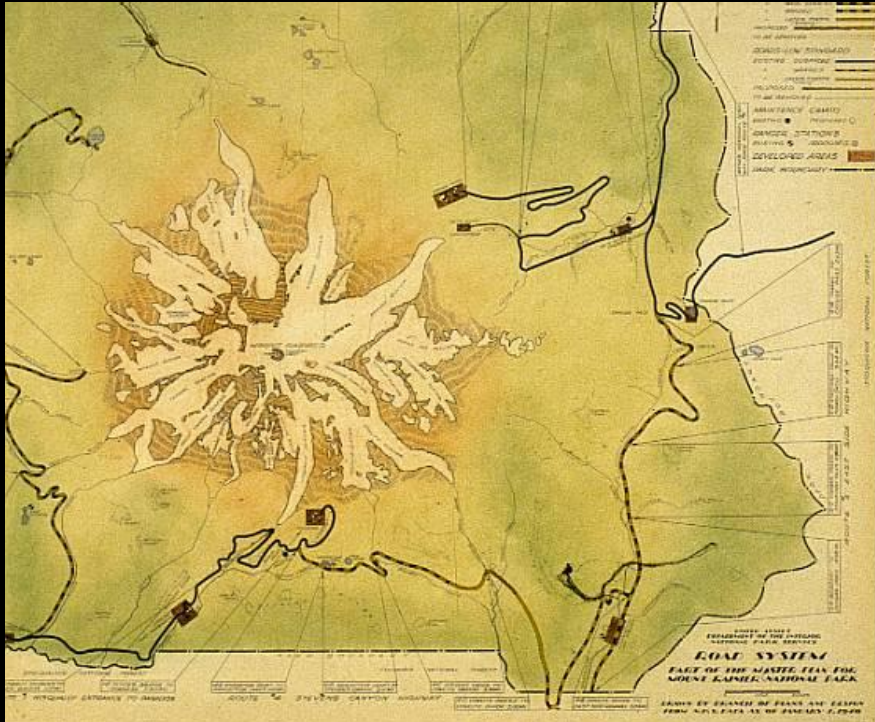
- An idea (and a name) created by U.S. National Park Service planners in 1955—linked to automotive tourism.
- VCs today include more office space, retail space, etc.—
- Is all the added program needed?
- Do some VCs dominate the park experience rather than enhance it (IMAX theaters, etc.)?
- Are large buildings affordable, sustainable, or desirable in park landscapes?
- Are there “DE-centralized” options that encourage less passive forms of landscape engagement?
- Are there other options to the VC/automotive tourism concept?

MISSION 66:

Parks as “day use” or overnight destinations? Or often BOTH—

Paradise Inn (1917) not demolished as planned...

Paradise Visitor Center, completed 1967





NOT THIS

BUT THIS



MORE AND MODERN COMFORT FACILITIES



IMPROVED PARK ROADS



MORE AND MODERN VISITOR ACCOMMODATIONS



NOT THIS

BUT THIS



IMPROVED VISITOR SERVICES BY MORE PERSONNEL



ADEQUATE MAINTENANCE FACILITIES



MORE EMPLOYEE HOUSING



Craters of the Moon Visitor Center (Idaho)




Quarry Visitor Center, Dinosaur National Monument, Anshen and Allen, 1957

YOUR MISSION 66 AND THE NATIONAL PARKS

A PASSPORT TO ADVENTURE



Presented by:  **PHILLIPS PETROLEUM COMPANY**



From coast to coast *Mission 66* means better vacations for you...

...filling mountains... breath-taking gorges... vistas to
take the pulse... historic sites to stir the heart - all
are part of the National Park System, and all these
... now have more to offer to more Americans - thanks
Mission 66.

initiated by Conrad L. Wirth, National Parks Director,
and endorsed by the 84th Congress, Mission 66 is a 10-
year program to conserve, develop and staff the National
Parks, so that by 1966, they may accommodate an esti-
mated 50 million vacationers a year. Technically the pro-
gram includes expansion of overnight facilities, better
roads and sanitation and enlarged interpretive activities.
Really it is an investment in America's heritage.

Our far-flung system of National Parks, the greatest in

the world, had its beginning in 1870. A small group of
public-spirited men, after exploring the Yellowstone, huddled
around a campfire in the Wyoming wilds and decided
that these natural wonders should be preserved as a
public park for the benefit of future generations.

It is good to know that, thanks to Mission 66, the camp-
fire is still burning bright...

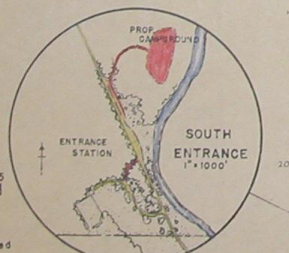
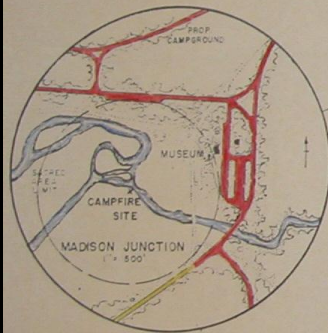
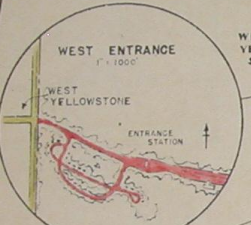
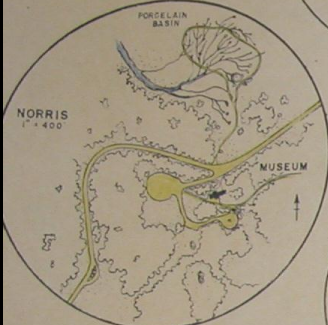
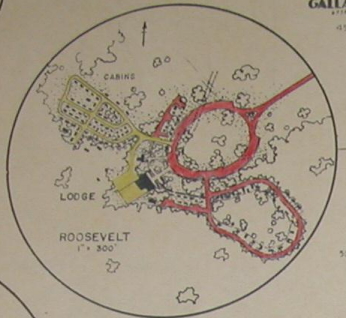
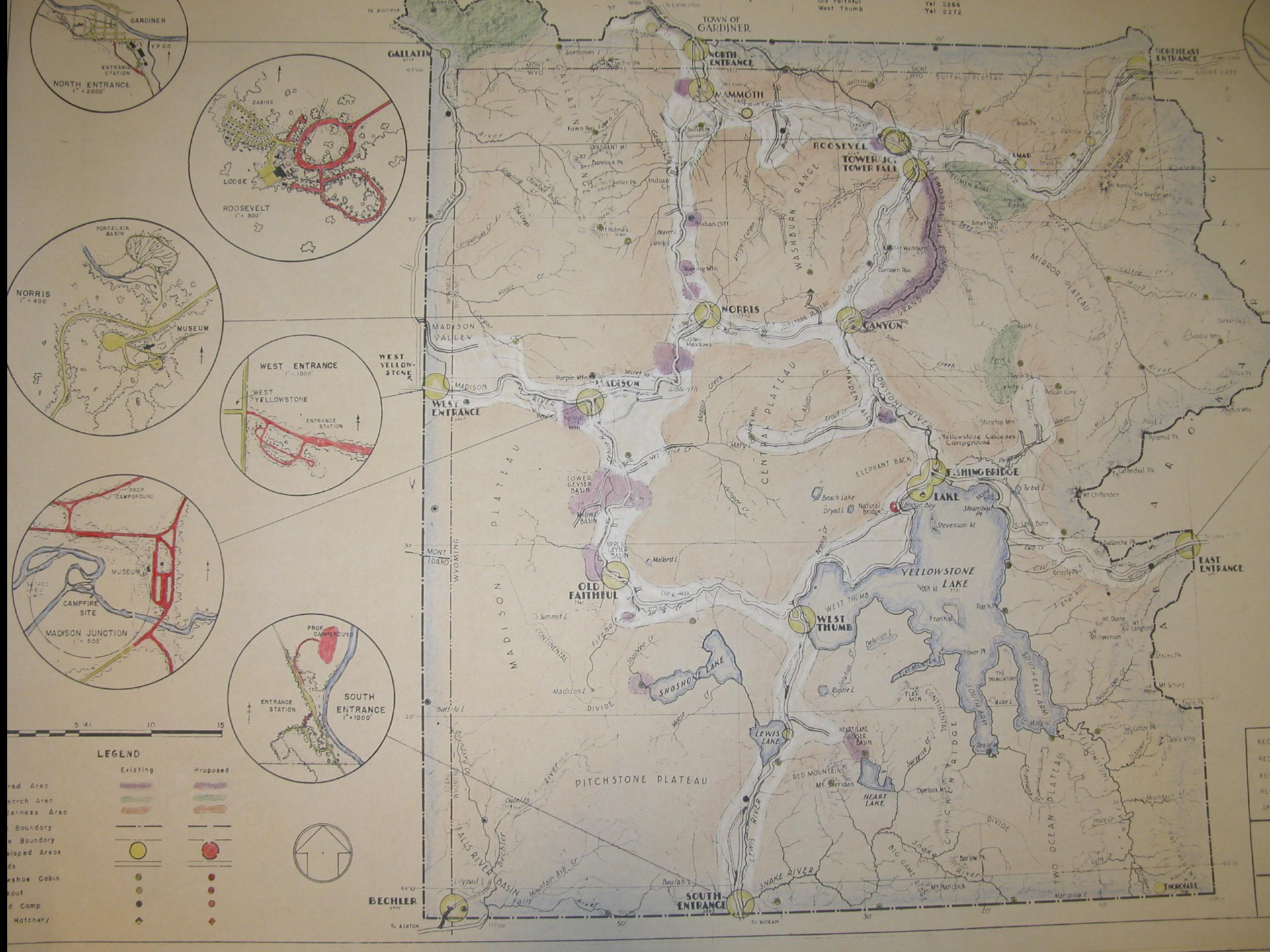
FREE Tour Information

If you would like to visit the National Parks on your next
vacation, or drive anywhere in the U.S.A., let us help plan
your motor trip. Write: Tour Bureau, Sinclair Oil Corporation,
600 Fifth Avenue, New York 20, N. Y. - ask for our colorful
National Parks Map.

SINCLAIR HAILS MISSION 66 and the public officials, the Con-
gress, conservation agencies and private citizens who have made
this important project an actuality.

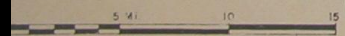


Such public service messages like this one are appearing in:
TIME • U. S. NEWS & WORLD REPORT • NATIONAL GEOGRAPHIC MAGAZINE • NATIONAL GRANGE
MONTHLY • NATURAL HISTORY MAGAZINE • SATURDAY REVIEW • BROADCASTING-TELECASTING



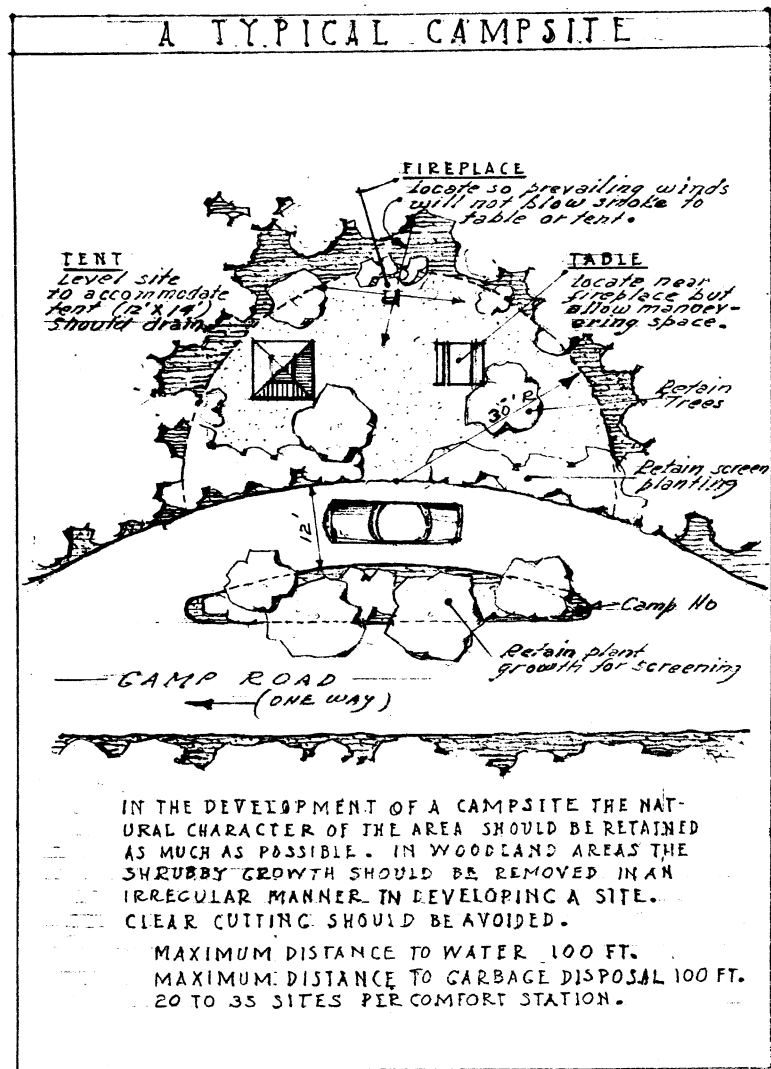
LEGEND

- | | |
|--------------|--------------|
| Existing | Proposed |
| Red Area | Green Area |
| Arch Area | Yellow Area |
| Serres Area | Blue Area |
| Boundary | Boundary |
| Boundary | Boundary |
| Sloped Areas | Sloped Areas |
| Shoe Cabin | Shoe Cabin |
| Out | Out |
| Camp | Camp |
| Hatchery | Hatchery |



BECHLER

REC
RE
RE
AP



Yellowstone National Park Campground, ca. 1956

MYRIAD SPRINGS

154 Sewage Pump

OLD FAITHFUL

LODGE AND CABINS

HOTEL AREA

ADMINISTRATION MUSEUM

AUTO PARKING

AUTO PARKING

AUTO PARKING

AUTO PARKING

Employee Dormitories

Busin. Bldg.

Busin. Bldg.

AUTO PARKING

PARKING

Busin. Site

GAS Garage

AUTO PARKING

Swimming Pool

TOURIST CABIN AREA

Maximum Guest 1235
Approx. 13.7 Acres.

GARAGE

GAS

Garage

Garage

Gas

Garage

PUBLIC CAMPGROUND

N.E.S. POWER 159

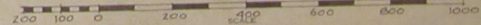


LEGEND

- EXISTING: Solid lines for roads/drives, dashed lines for walks/paths, solid rectangles for buildings.
- PROPOSED: Dashed lines for roads/drives, dotted lines for walks/paths, dashed rectangles for buildings.
- Improvements proposed for removal: Dotted lines for roads/drives, dotted rectangles for buildings.

See EXISTING DEVELOPMENT for Topographic features YEL 2764

TRANSITIONAL STAGE



RECOMMENDED	Regional Director	DATE
RECOMMENDED	Chief of Development	DATE
APPROVED	Director	DATE

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
PLANS AND DESIGN DIVISION
REGIONAL OFFICE

OLD FAITHFUL DEVELOPMENT
PART OF THE MASTER PLAN
YELLOWSTONE NATIONAL PARK

REGION	II
MARCH 19	19
DRAWING NO.	ND
YEL 2269	
SHEET	



CASTLE GEYSER

FIRENHOLE RIVER

1/8 mile zone

OLD FAITHFUL

154 Sewage Pump

2342

155

2338

2339

2337

2305

PARKING

2312

2313

2314

2306

ADMINISTRATION MUSEUM

176

PARKING

MYRIAD SPRINGS

Swimming Pool

2326

PARKING

STORE

GAS Garage

PARKING

Employee Dormitories

Business Site

Business Site

PARKING

Business Site

Empl Dorms

Caretaker Firetruck Jail

PUBLIC CAMPGRO

TOURIST CABIN AREA
Maxim Guests 1235 - Appr 13.7 Acres

GARAGE

GAS

Amphitheater
Concession
conven.
Hall







TO NORRIS JUNCTION
11 MI.

CASCADE
CREEK

TO CASCADE LAKE
TO NORRIS JUNCTION

PROPOSED PROJECTION
NORRIS ROAD

GOVERNMENT SERVICE AREA

TRAILER
CAMP

RESIDENCES

CANYON VILLAGE

GAS &
OIL

PARKING

LODGE CABINS

BUS COMPOUND

TOURIST
CABINS

CAMPGROUND

HOTEL

5701
5702
5703

LODGE

LOWER
FALLS

CRYSTAL
FALLS

UPPER
FALLS

SUNSET
TRAIL

LODGE
CABINS

HORSE
CORRAL

UNCLE TOM'S
TRAIL

RED ROCKS
POINT

LOOKOUT
POINT

GRANDVIEW
POINT

WRANGLER'S
TRAIL

ARTIST
POINT

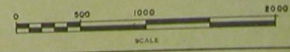
NORTH RIM
TRAIL

HOWARD EATON TRAIL
TO TOWER FALLS

INSPIRATION
POINT

TO CLEAR LAKE
&
RIBBON LAKE

TO POINT
SUBLIME
&
RIBBON LAKE



RECOMMENDED _____ SUPERINTENDENT _____ DATE _____

RECOMMENDED _____ ASSISTANT REGIONAL DIRECTOR _____ DATE _____

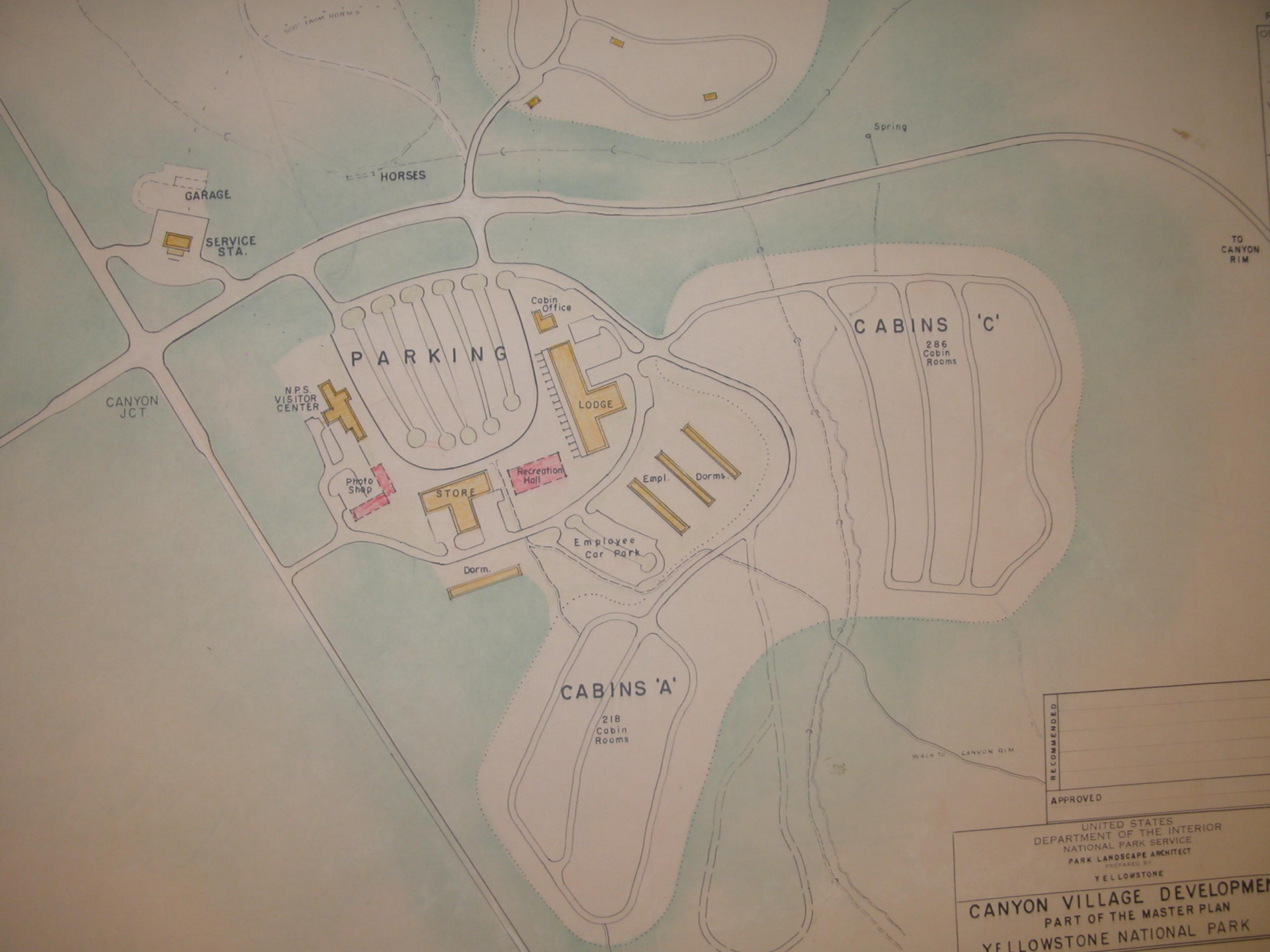
RECOMMENDED _____ REGIONAL DIRECTOR _____ DATE _____

RECOMMENDED _____ CHIEF OF PLANNING & CONSTRUCTION _____ DATE _____

APPROVED *Conrad L. Furtch* DIRECTOR DATE *8-26-54*

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
LANDSCAPE ARCHITECTURE DIVISION
PREPARED BY
REGION TWO - FIELD
OFFICE
CANYON REGIONAL PLAN
PART OF THE MASTER PLAN
YELLOWSTONE NATIONAL PARK





RECOMMENDED

APPROVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
PARK LANDSCAPE ARCHITECT
PREPARED BY
YELLOWSTONE

CANYON VILLAGE DEVELOPMENT
PART OF THE MASTER PLAN
YELLOWSTONE NATIONAL PARK





Draft Park Design Principles, Fort Baker, San Francisco, December 2008

Park planning and design must demonstrate:

- Reverence to place
- Engagement of all people
- Expansion beyond traditional boundaries
- Advancement of sustainability
- Knowledge-informed decision making
- An integrated research, planning, design, and review process



Cars in new Yosemite Village, as built in 1920s, Yosemite National Park, California



**Wilderness
by Design:**

Landscape
Architecture &
the National
Park Service

Ethan Carr

Some (State/National) Park Design Principles, ca. 1916-1942 at the U.S. NPS

- Facilitation of automotive tourism (“enjoyment”), while still “conserving” scenic and historic landscapes “unimpaired”;
- Standardization throughout the “system” of building types, signs, uniforms, visitor amenities, interpretive approach;
- Rustic construction defined in terms of “native” materials, “pioneer” and other historical/ethnographic references;
- Typology of conservation, recreational, historical areas;
- Zoning at level of town (park “villages”) and region (park “master plan”).



Scene near Madison Junction, purported birthplace of the “National Park Idea,” Yellowstone National Park



Wright Brothers National Historic Site Visitor Center, Mitchell ,Giurgola



Gettysburg Visitor Center and Cyclorama, Richard Neutra, 1962



Beaver Meadows Visitor Center, Rocky Mountain National Park, Colorado, Taliesin Associates



A Student Competition
to Reimagine America's
National Parks



ABOUT
THE SITES
COMPETITION PROGRESS
STUDIO TO PRACTICE

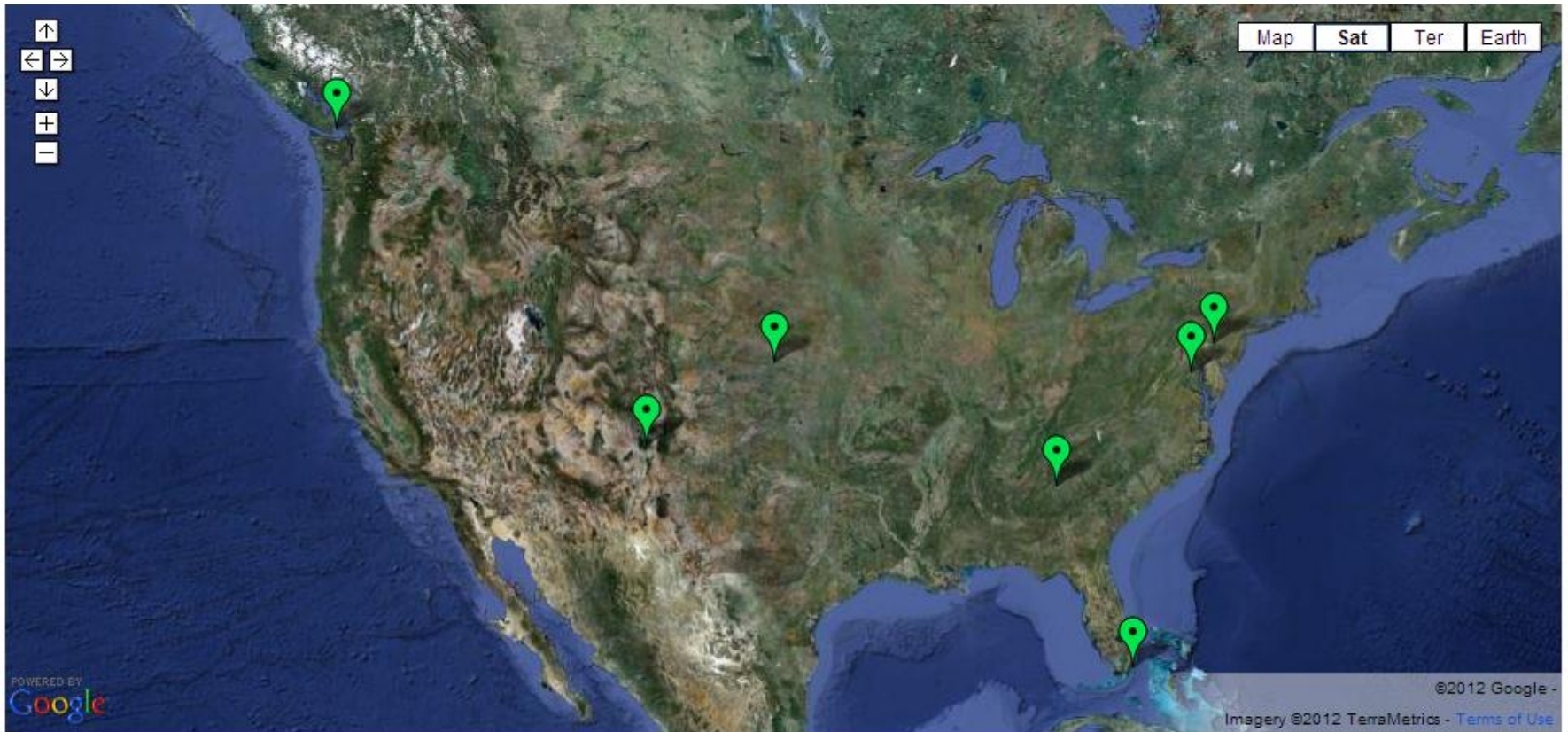
THE SITES

In the fall of 2011, faculty in architecture, landscape architecture, urban design, planning, ecology, preservation, communications, and related fields organized research teams to investigate one of seven national park sites as the focus of their studio proposal. Below is a Google map showing the location of each site. Beneath the map are links to information about each site provided by the National Park Service. You can also view the map at [Parks for the People Competition Sites](#).

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Northeast Region
Hopewell Furnace National Historic Site

National Capital Region
[Civil War Defenses of Washington](#)





A Student Competition to Reimagine America's National Parks



ABOUT THE SITES
COMPETITION PROGRESS
STUDIO TO PRACTICE

COMPETITION WINNERS > CITY COLLEGE OF NEW YORK

Logic Trees
The logic tree structure is a graphic device for communicating systemic relationships. It is a method for assessment of the hierarchies of relationships between institutions, individuals and communities, taking many diverse entities and organizing them in terms of scales of impact or degrees of significance to the whole system.

2. Nicodemus NHS presents the future mode of park establishment it must be managed within a living community in territory federally owned. Tied to this requirement is a shift in the site's interpretive mandate. In an era where Black American ownership is declining, Nicodemus Descendants' tenacity to their land is a triumph of resilience. At Nicodemus NHS preservation is not a constraint it is the message.

The CCNY site plan proposal demarcates the original Town Plat, and most and interpretive features are located within the public domain of the plat's rights-of-way. In addition, the CCNY studio proposes a strategy for establishing agreements as a method of engaging the local residents and land-owning a process to stabilize the damaged and declining structures on the site, as domestic landscape to reflect a living community.

	public land		Exist
	city spaces (camping, gathering/event areas/facilities)		SP1
	usufruct agreements for domestic land management		SP2
	production zone (trussery, organic specialty produce)		Food
	Dugout Archeology Zone		Bike
	Private to Farms Landscape Management Phase 1 Phase 2		VP



A Student Competition to Reimagine America's National Parks



ABOUT THE SITES COMPETITION PROGRESS STUDIO TO PRACTICE

COMPETITION WINNERS > RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

SIX PRINCIPLES & FOURTEEN INTERVENTIONS

- 1. Maximize the use of existing infrastructure
- 2. Create a network of paths
- 3. Create a network of paths
- 4. Create a network of paths
- 5. Create a network of paths
- 6. Create a network of paths
- 7. Create a network of paths
- 8. Create a network of paths
- 9. Create a network of paths
- 10. Create a network of paths
- 11. Create a network of paths
- 12. Create a network of paths
- 13. Create a network of paths
- 14. Create a network of paths

THE WINNING INTERVENTIONS

The winning interventions include: 1. Maximize the use of existing infrastructure, 2. Create a network of paths, 3. Create a network of paths, 4. Create a network of paths, 5. Create a network of paths, 6. Create a network of paths, 7. Create a network of paths, 8. Create a network of paths, 9. Create a network of paths, 10. Create a network of paths, 11. Create a network of paths, 12. Create a network of paths, 13. Create a network of paths, 14. Create a network of paths.

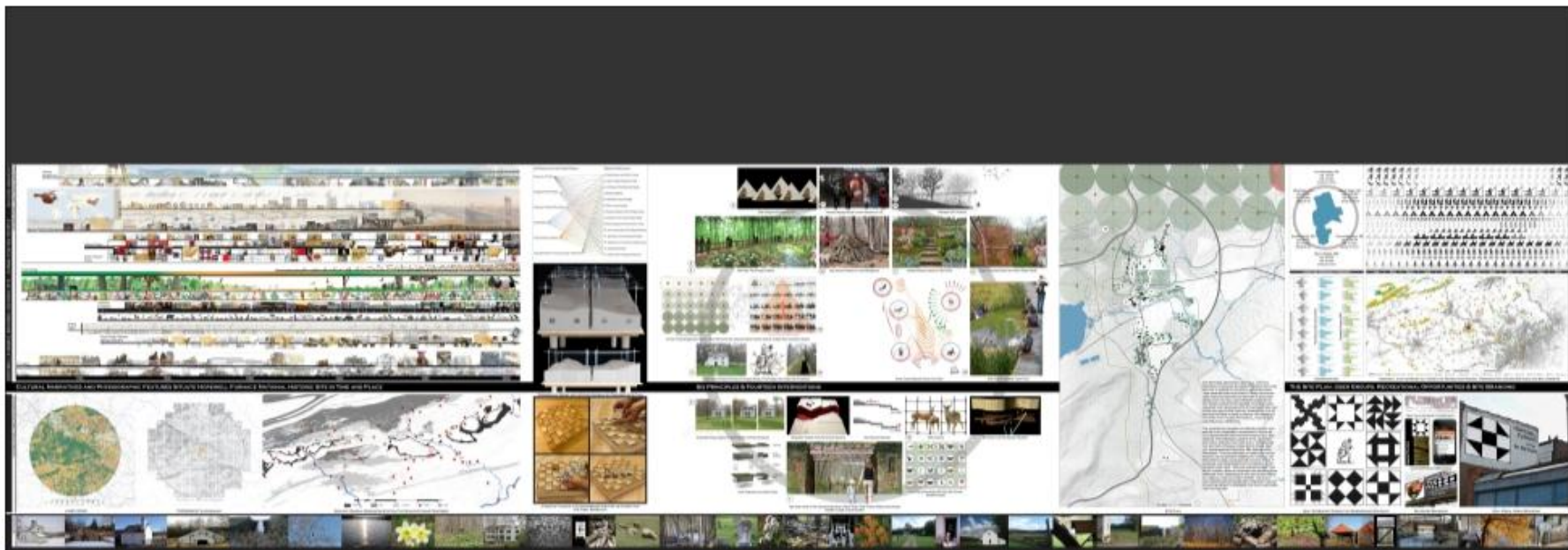


A Student Competition to Reimagine America's National Parks



ABOUT THE SITES COMPETITION PROGRESS STUDIO TO PRACTICE

COMPETITION WINNERS > RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY



Some (National) Park Design Principles, ca. 1942-1966

- Increased facilitation of automotive tourism through extensive development for higher levels of (more often) day-use visitation;
- Centralization of services (one-stop shopping) in “visitor centers,” with related road, parking, campground enlargement;
- Expansion of park system (recreation areas, seashores, historic sites), as well as of visitor capacities of individual parks;
- Harmonization (visual) in building achieved through horizontal massing, minimal ornament, efficient planning—not “rustic”;
- Professionalization of staff, permanently increased levels of funding per unit of system.



Mary E. J. Colter, Lookout Studio, 1914, Grand Canyon National Park



Norris Geyser Basin Trailside Museum,
Yellowstone National Park, Herbert Maier, 1929

Further Development of Fort Baker Statement

Desirable principles (easy ones):

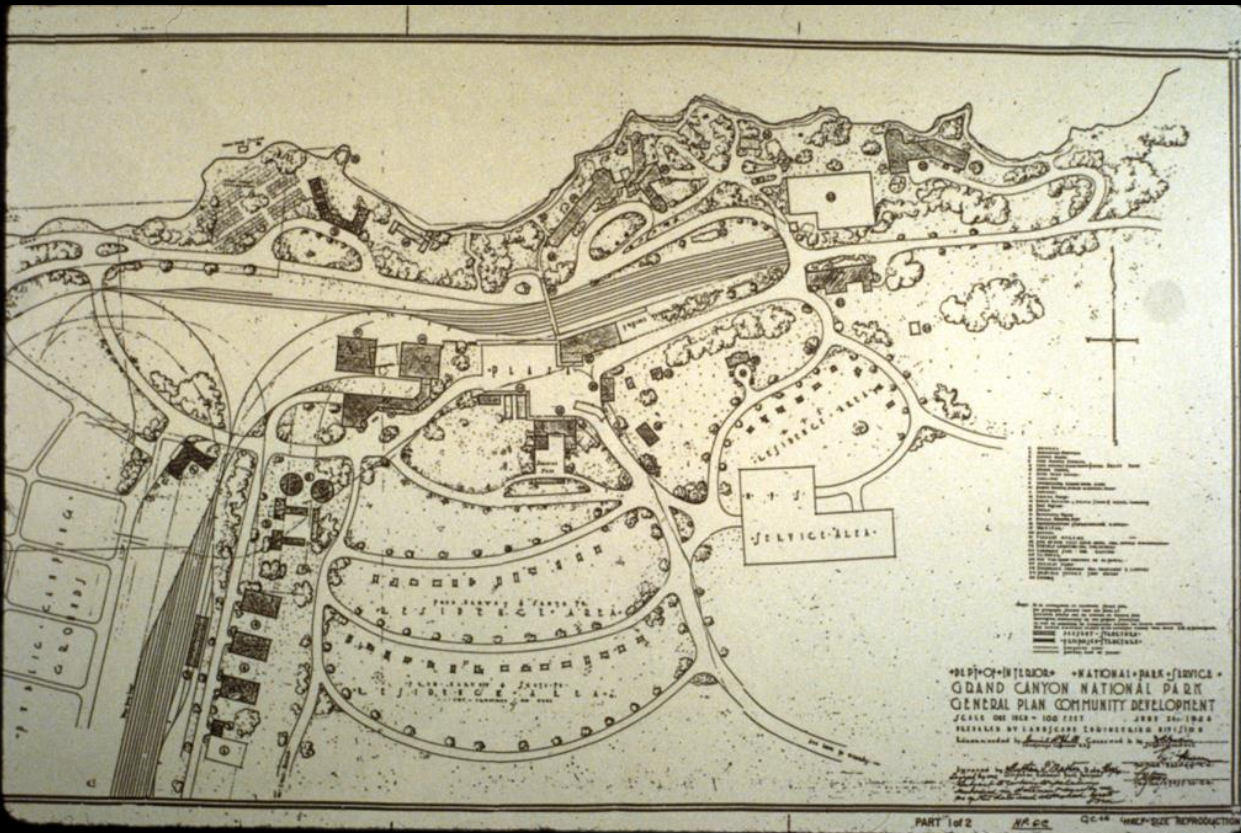
- A **more diverse public** must be reflected in park design and interpretation for parks to remain valued;
- Environmental disruption and **climate change** and must be anticipated in order for parks to remain functional;
- Guidelines for **sustainability** (LEED standards, 2009 ASLA Sustainable Sites Initiative, 1994 NPS sustainability guidelines) should be incorporated into park design principles;
- Decision making must be based in **science**;
- Architectural **historicism**—including rustic, neo-traditional, and modernist varieties—does not constitute a park design strategy.

Further Development of Fort Baker Statement

Desirable principles (up for discussion):

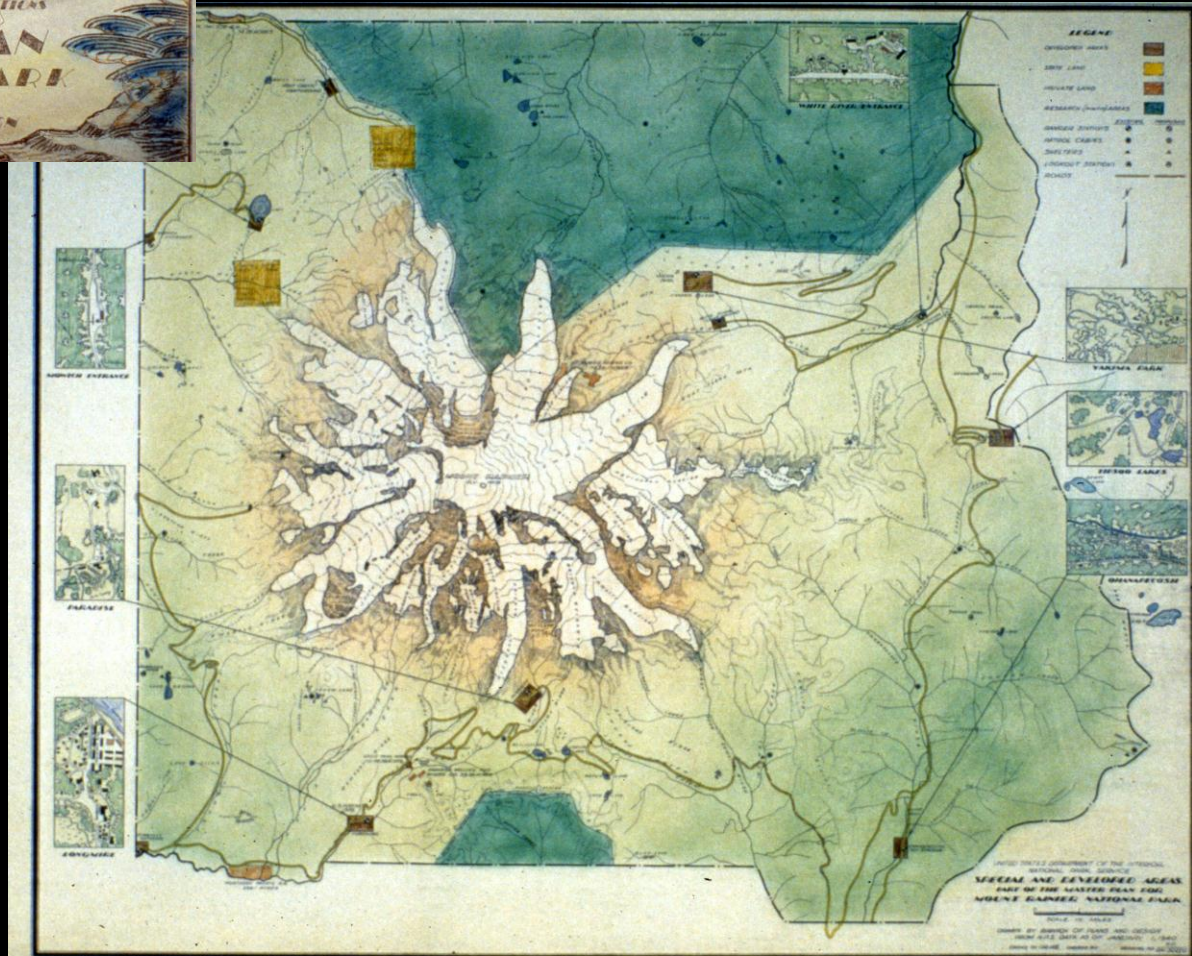
- Visitors should have varied and **direct experiences** of nature and natural processes in park “developed areas”;
- New technologies and intents in park interpretation should mean significant change in the pattern, pace, and content of park visits, and in the design of new **interpretive landscapes**;
- Alternative circulation (transportation) must be considered in terms of new **modes of experience**, not just infrastructure;
- The principle of “**harmonization**” of conflicting uses, groups, or purposes remains valuable;
- The function of the park “**visitor center**” must be reconsidered— which services are essential and consistent with social and environmental goals? How are they best delivered?
- Contemporary **municipal park design** should continue to be a source of inspiration in the design of “developed areas.”





South Rim Village plan, ca.1920, Daniel Hull, landscape architect.
Grand Canyon National Park, Arizona

Top to bottom on right: South Rim trail (1930s); Second Administration Building, 1929, Thomas Vint; First Administration Building, 1921, Daniel Hull, Grand Canyon National Park



“Master Plan” sheets for Mount Rainier National Park, Washington, 1930s

Dormant volcano with largest system of glaciers in the U.S. (except Alaska)

AREA: 5.5 km²



Old Faithful geyser and Old Faithful Inn, Robert Reamer, 1903, Yellowstone National Park



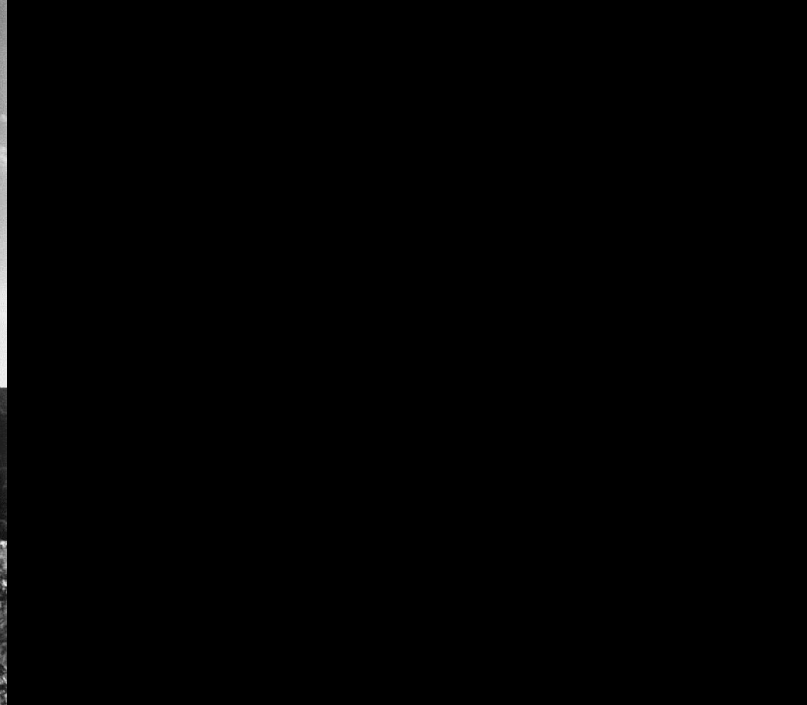
Old Faithful Inn, Robert Reamer, 1903, Yellowstone National Park



Central Park, New York (established as park 1853,
developed 1856-1873)



Yosemite Valley, California (established as park 1864,
FLO management report 1865)



Skyline Drive, Shenandoah National Park
(Virginia) 1920s-30s



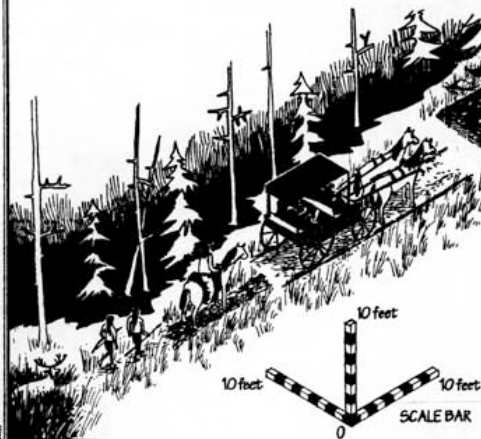




ROADWAY CONSTRUCTION METHODS AND EVOLUTION

Archaeological digs prove that throughout history, travelers used the same or similar corridors for travel throughout the Park. For centuries, game trails have led Native Americans to hunting grounds, which also proved convenient for travel to distant destinations. These same trail corridors were then used by fur trappers and later for official explorations that led to the birth of the first National Park in 1872. After the official opening of the Park, visitor numbers continued to double every year, creating the need to vastly improve and expand the existing trail system. Trailways were widened and straightened to accommodate oncoming wagons and coaches. Although widened, these narrow roads offered visitors the wilderness experience they came looking for. As visitor numbers increased, the dusty, rough, week-long tour through the Park became too much the wilderness experience and improvements were made. Of the many improvements, water stations were constructed to dampen the many dry and dusty sections of dirt road. Through boggy and marsh sections, roadbed surfaces were raised on a gravel base over log corduroy construction. This roadbed surface averaged fifteen feet wide with drainage ditches along both sides.

When new road building slowed to a crawl in 1905, the existing roadway surfaces demanded furrows for straightening, widening and annual maintenance. Further attempts at controlling dust were made by applying layers of gravel and oil to roadway surfaces. As roadways continued to widen and straighten, bituminous (asphalt) layers completely solved dust and erosion problems thus reducing maintenance costs. Throughout the Park, main roadway locations have changed little since the thirties but have seen minor re-routes, many widening projects and considerable maintenance improvements. Today, ensuing a twenty-year road rehabilitation program, action is being taken to create bicycle lanes and to increase recovery zones for both lanes, creating in many areas, a substantial change in the visitors' experience.



EARLY ROADS



1930'S & 1940'S

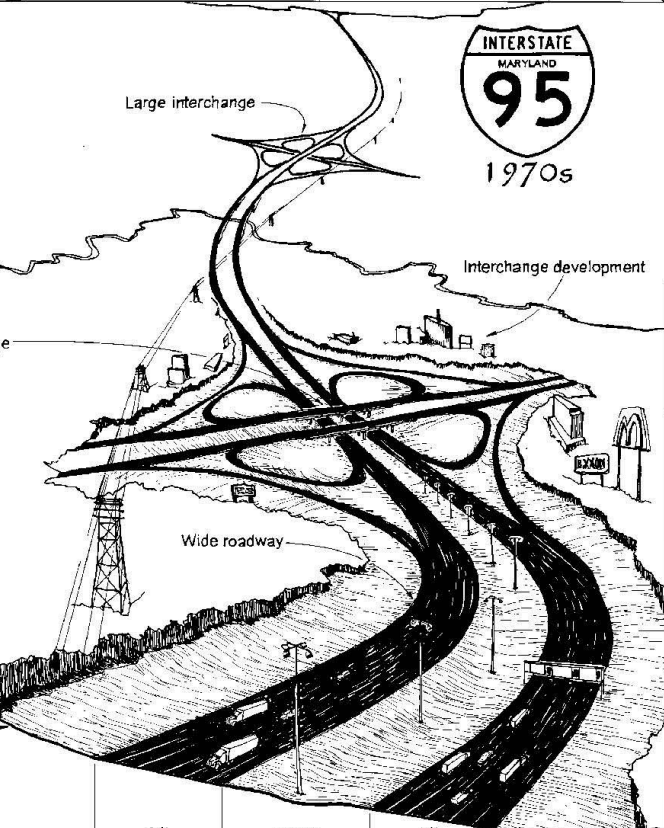
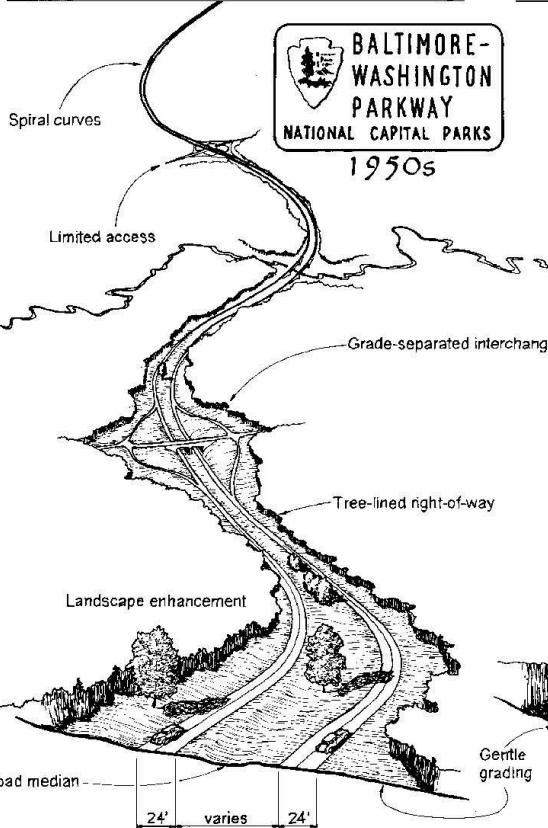
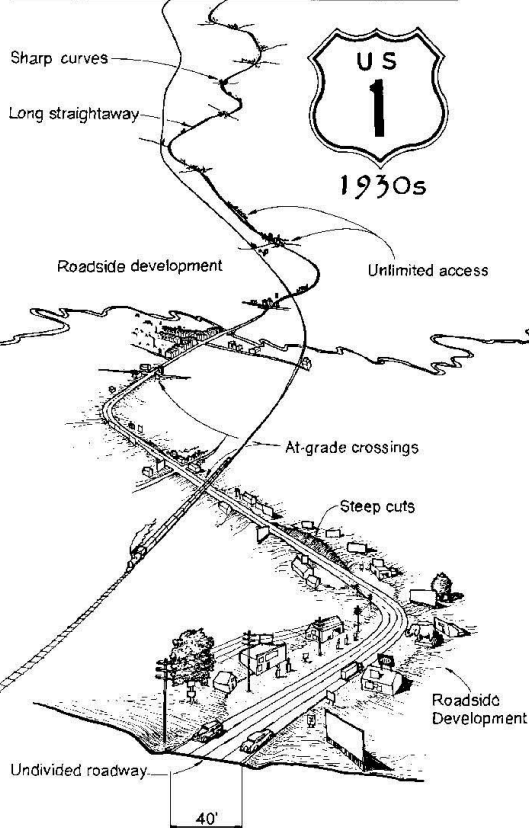


1950'S & 1960'S



- Although a dusty and rough procession, early trails and roadways followed local topography allowing an intimate wilderness traveling experience where both driver and passenger participated. As visitor numbers increased, steam shovels and large machinery allowed cut and fill techniques that straightened roadway alignment, which provided safer driving conditions.
- Later, large diesel and heavy earth moving equipment allowed construction of even wider and straighter road surfaces, creating a much faster travel procession through the park. Although roadway design today is wider, straighter and somewhat safer, opportunity for driver experience and participation is eroding, diminishing the intimate wilderness experience most visitors come looking for.

EVOLVING ROADWAY TYPES



U.S. Route 1 typified the problems associated with ordinary highways. While it was paved with modern asphalt and concrete, most design features were unchanged from horse and buggy days. The road itself was a haphazard mix of sharp curves, long straightaways and uneven grades. Multiple at-grade intersections, unrestricted access from roadside properties and the lack of median dividers produced an unsafe and inefficient transportation corridor. Billboards, gas stations, roadside eateries and telephone poles lined the narrow right-of-way, distracting motorists and obscuring roadside scenery.

Parkways provided an attractive and efficient alternative to conventional highway construction. Carefully designed roadways with gentle grades and sweeping spiral curves were safer and more attractive than traditional alignments. Broad medians, grade-separated interchanges, and strict limitations on access from cross-streets and abutting properties greatly enhanced safety and efficiency. A wide, tree-lined right-of-way screened out unsightly roadside development and provided opportunities for landscape enhancement. Prohibitions on trucks and other commercial traffic made driving safer and more comfortable.

Interstate highways employed many of the basic design features pioneered by motor parkways but placed less emphasis on scenic values. Wider, straighter roadways with additional lanes and longer merging zones accommodated higher speeds and traffic volumes but took up a larger portion of the right-of-way. Access was tightly controlled, but viewshed protection was often limited, especially at interchanges. Landscape enhancements were minimal and the roadway dominated the forward view. Grade-separation structures were larger and less artistically designed. Interstates accommodated all types of modern motor traffic, including large trucks and buses.



Blue Ridge Parkway (Virginia and North Carolina), 1930s



Logan Pass and Going-to-the-Sun Road,
Glacier National Park, Montana, 1927-1939

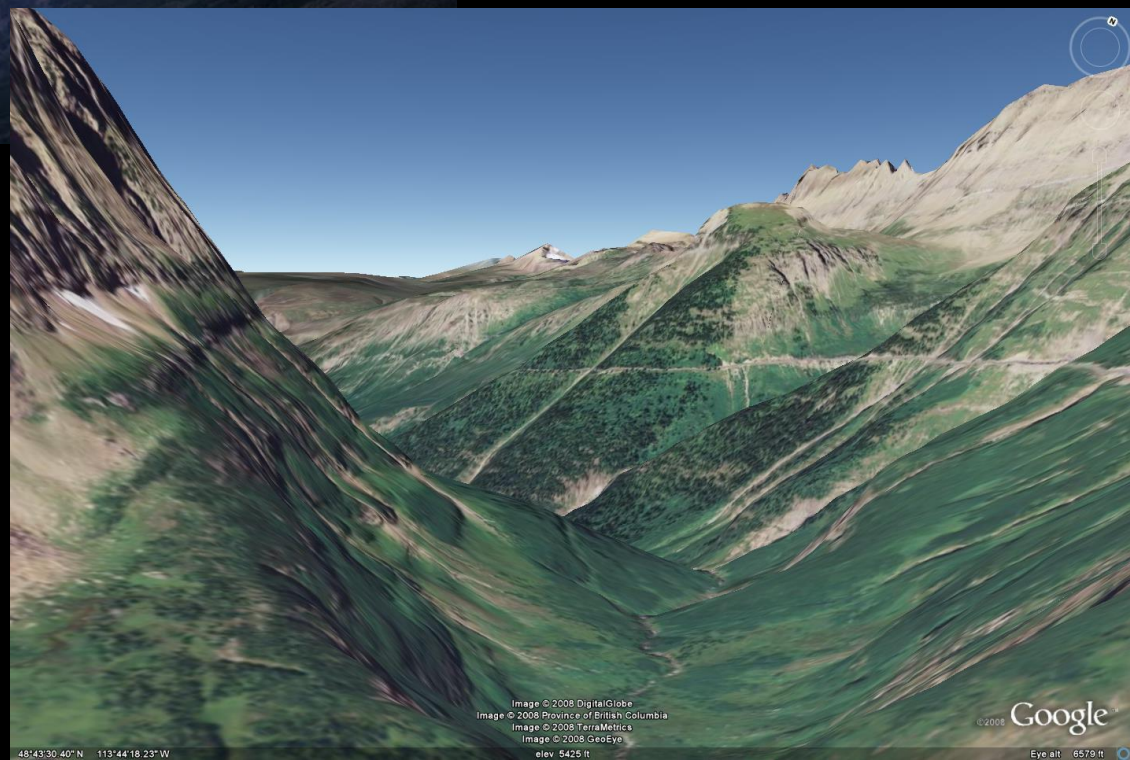
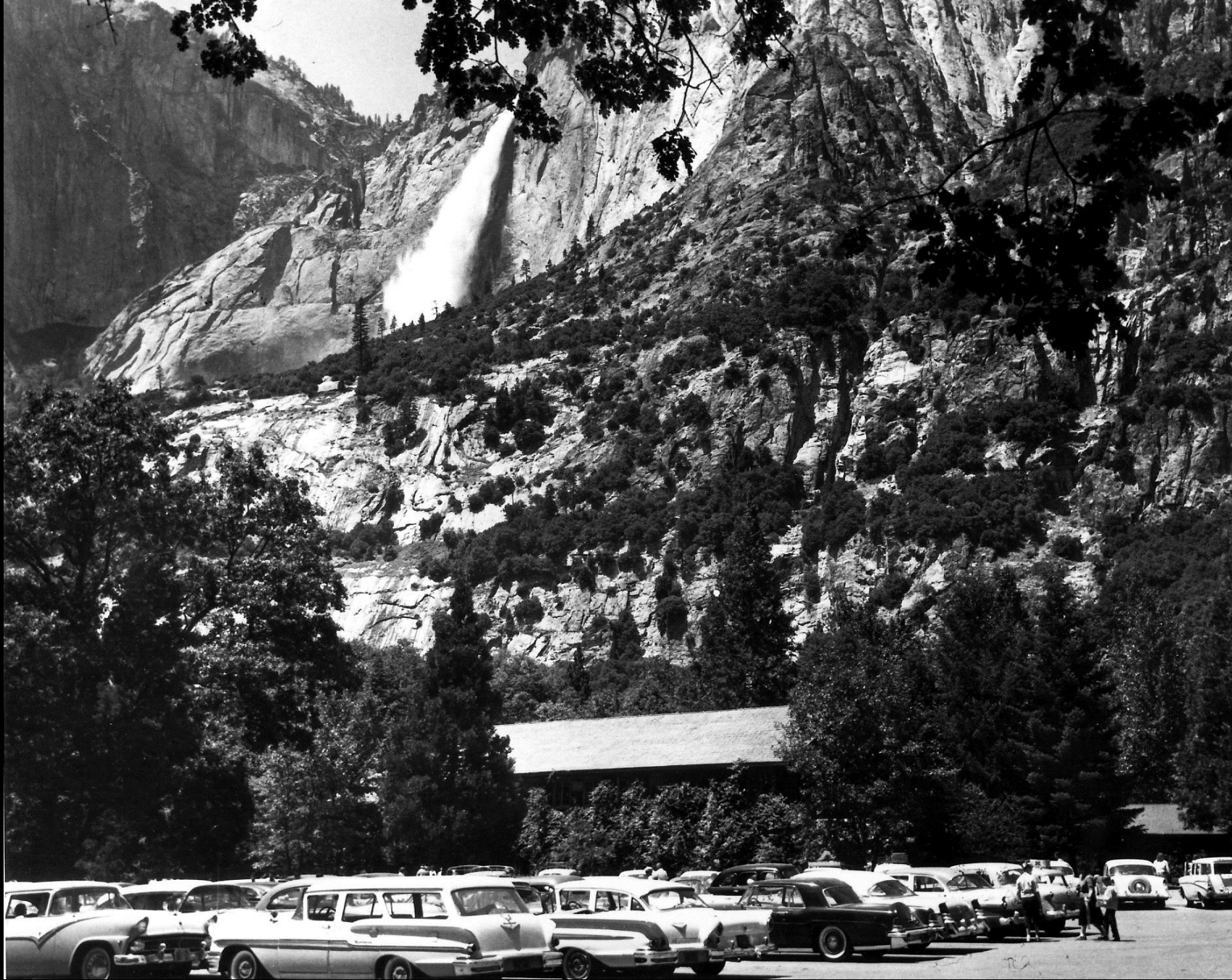


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Image © 2008 TerraMetrics
Image © 2008 GeoEye
elev 5425 ft

© 2008 Google

Eye alt: 6579 ft

48°43'30.40" N 113°44'18.23" W



Cars in Yosemite Village, 1960s

MISSION 66

MODERNISM AND THE NATIONAL PARK DILEMMA

ETHAN CARR





Canyon Village Lodge, Welton Becket, Yellowstone National Park, 1956



Zion-Mount Carmel Highway, Zion National Park (Utah), 1930s



Colorado National Monument, park road (Colorado), 1930s



Generals Highway, Sequoia and Kings
Canyon National Parks (California),
1920s-30s