


**SURVEY METHODS AND PROCEDURES OF  
THE ADIRONDACK SURVEY AND THE  
NYS LAND SURVEY 1872-1900**  
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**1. GEODETIC TRIANGLES  
2. STATIONS  
3. SIGNALS & TOWERS  
4. INSTRUMENTS  
5. BASELINES  
6. BOUNDARY LINES**

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**WHY DOES VERPLANCK COLVIN'S WORK MATTER?**

Chapter 589 of the Laws of 1895, Section 5

"All maps or field notes prepared and issued by the superintendent of the State Land Survey under his certificate, hand and official seal, shall be accepted in the courts of this State as prima facie evidence of the particular boundaries and locations shown ---"

Chapter 661 of the Laws of 1900, Section 2

"All of Chapter 598 of the Laws of 1895 -- except Section 5 thereof -- are hereby repealed"

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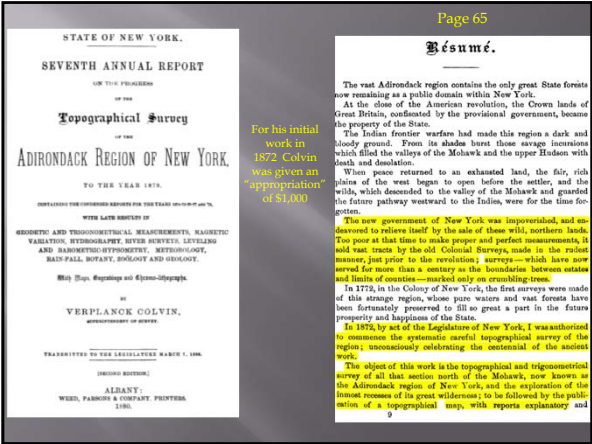
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Résumé.

The vast Adirondack region contains the only great State forests now remaining as a public domain within New York.

At the close of the American revolution, the Crown lands of Great Britain, confiscated by the provisional government, became the property of the State.

The Indian frontier warfare had made this region a dark and bloody ground. From its shades burst those savage incursions which filled the valleys of the Mohawk and the upper Hudson with death and desolation.

When peace returned to an exhausted land, the fair, rich glades of the west began to open before the settler, and the wilds, which descended to the valley of the Mohawk and guarded the future pathway westward to the Indian, were for the time forgotten.

The new government of New York was impoverished, and one moment to relieve itself by the sale of these wild, northern lands. Too poor at that time to make proper and perfect measurements, it sold vast tracts by the old Colonial Surveys, made in the rudest manner, just prior to the revolutionary surveys—which have now served for more than a century as the boundaries between estates and limits of counties—marked only on crumbling trees.

In 1772, in the Colony of New York, the first surveys were made of this strange region, whose pure waters and vast forests have been fortunately preserved to fill so great a part in the future prosperity and happiness of the State.

In 1872, by act of the Legislature of New York, I was authorized to commence the systematic careful topographical survey of the region, unconsciously celebrating the centennial of the ancient work.

The object of this work is the topographical and trigonometrical survey of all that section north of the Mohawk, now known as the Adirondack region of New York, and the exploration of the finest routes of its great wilderness; to be followed by the publication of a topographical map, with reports explanatory and

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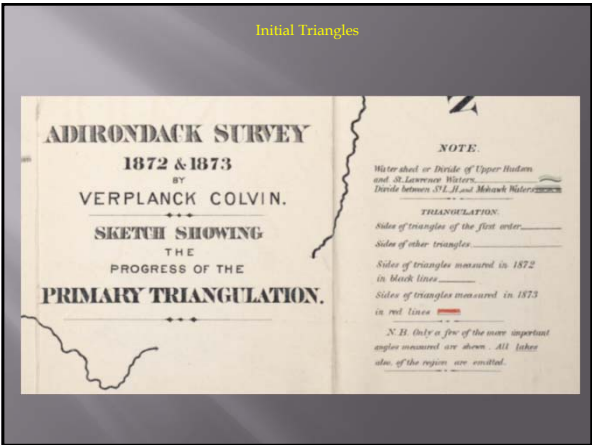
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NOTE.

Water shed or Divide of Upper Hudson and St. Lawrence Rivers. ————

Divide between St. Lawrence and Mohawk Rivers. ————

TRIANGULATION.

Sides of triangles of the first order. ————

Sides of other triangles. ————

Sides of triangles measured in 1872 in black lines. ————

Sides of triangles measured in 1873 in red lines. ————

N. B. Only a few of the more important angles measured are shown. All lakes also of the region are omitted.

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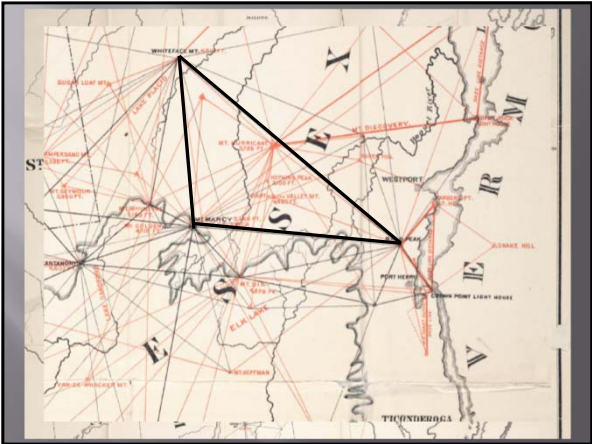
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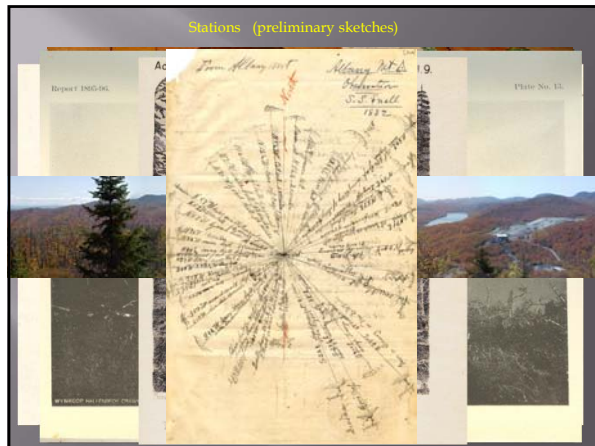
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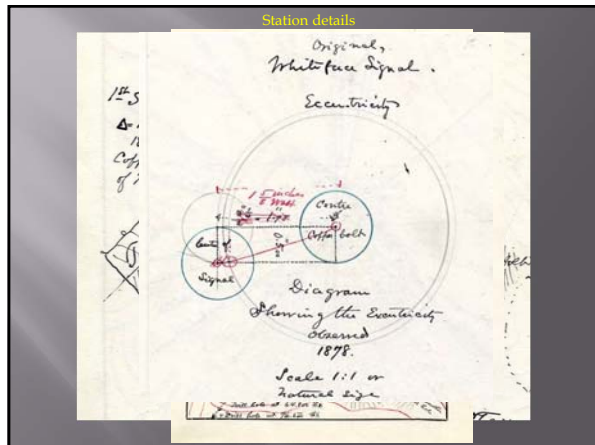
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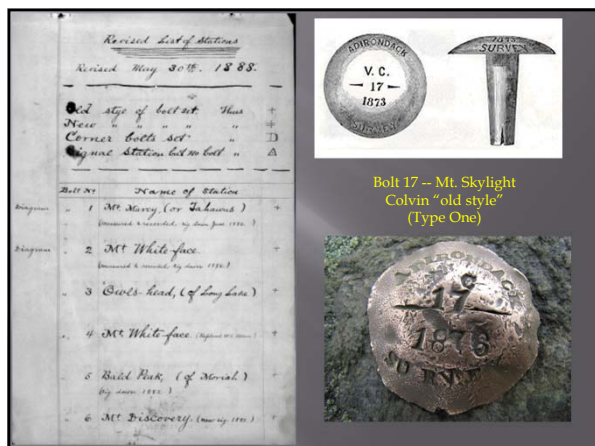
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The "Steel Wedge"




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"Foot Holes"

At most of the stations on peaks other holes were drilled to hold the feet of the theodolite tripod. The surveyor desiring to avail himself of our work, and proceed from these stations for local measurements, will find it to his advantage to set his tripod by these *foot holes*, his instrument being almost instantly centered. As mentioned in last




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Signals & Towers



on the tower were wonderful success, having been visible to the naked eye at a distance of twenty-one miles. Without its aid we should have been unable to have accomplished our work. To this automatic reflector I have given the name of *Stan-helo signal*, and I take pleasure in introducing it into topographical engineering. Mirrors might have been substituted for the tin; but they would probably have been broken in carrying, or certainly have failed shattering before the first heavy hailstorm, or been fractured by the swaying of the signal, in a gale, against its support.

Of these Stan-helo signals there were different orders.

**First order** is a signal composed of twelve sheets of heavy tin, each 14 by 30 inches; having together, as reflecting surface, 3,560 square inches. This signal, when folded together and packed for carrying, occupied a space of only 1 1/2 cubic inches, and weighs eleven pounds and ten ounces.

**Second order** signal is constructed of nine sheets of tin, each 10 by 14 inches; reflecting surface, 2,520 inches.

**Third order** signal is constructed of twelve sheets of tin, each 10 by 14 inches; having a reflecting surface of 1,680 square inches; weight, 5 pounds 13 ounces.

**Fourth order** signal is made of the same sized tin as those of the third order, but of only nine sheets, being like the second order, triangular at the top.

**Fifth order** consisted of two double truncated tin cones; one inverted and the other upright, united at the base, and suspended by wires above the station.

**Sixth order** consisted of small, simple, single cones of bright tin.

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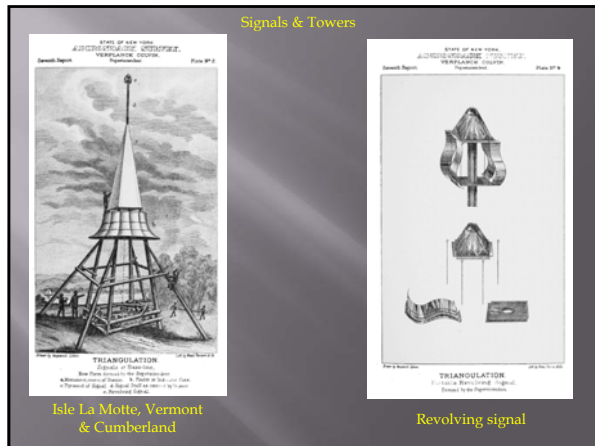
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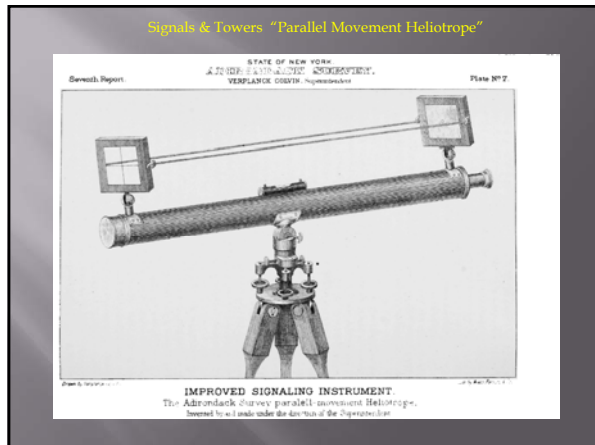
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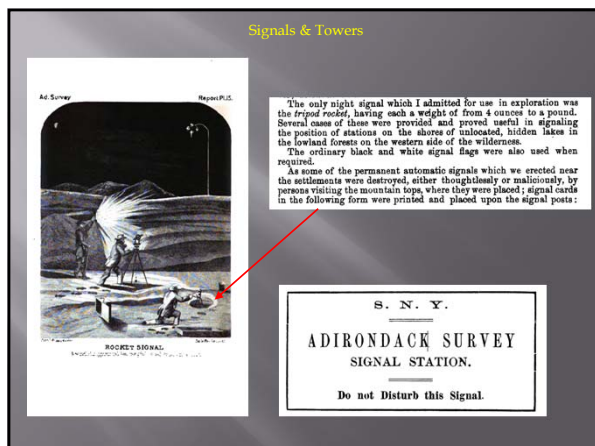
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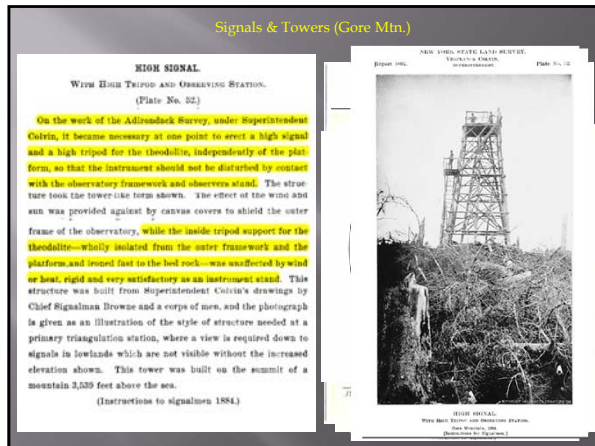
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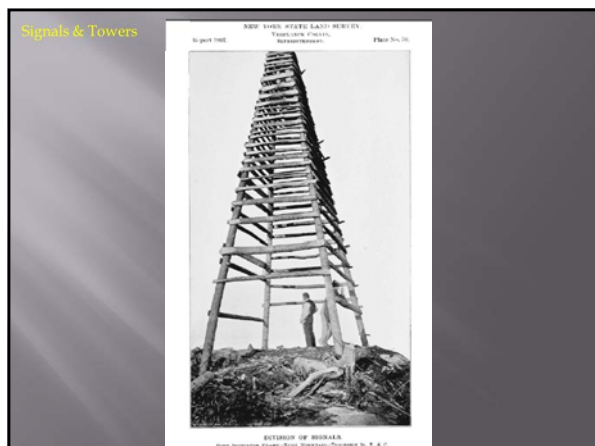
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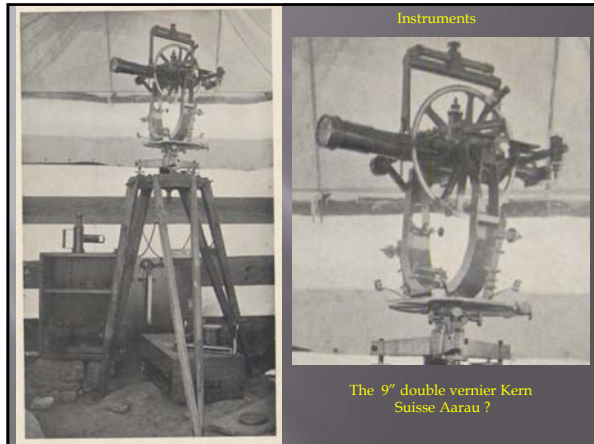
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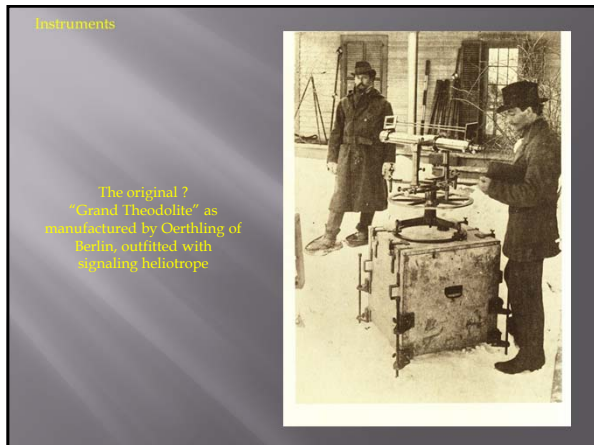
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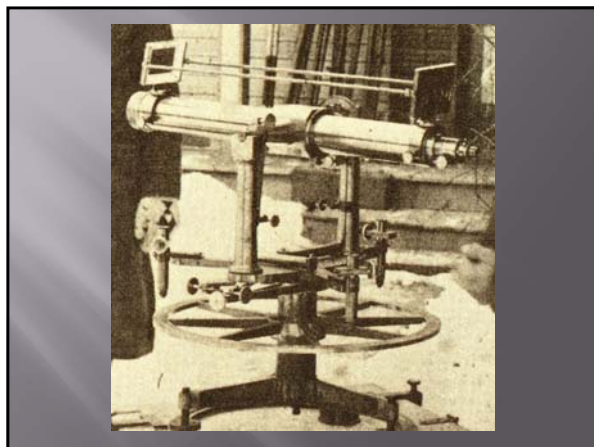
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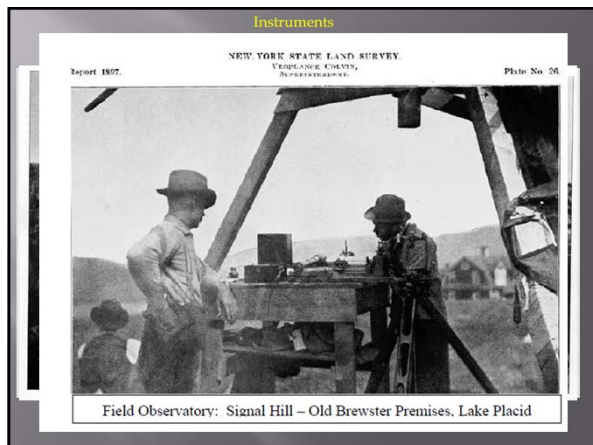
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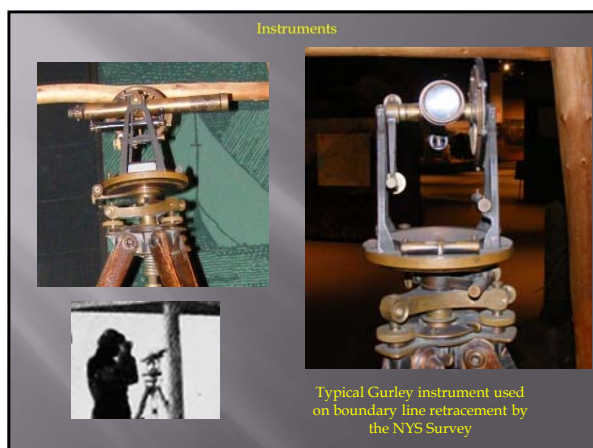
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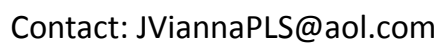
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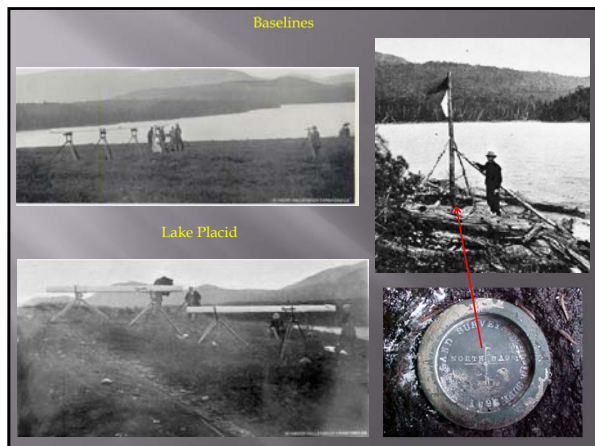
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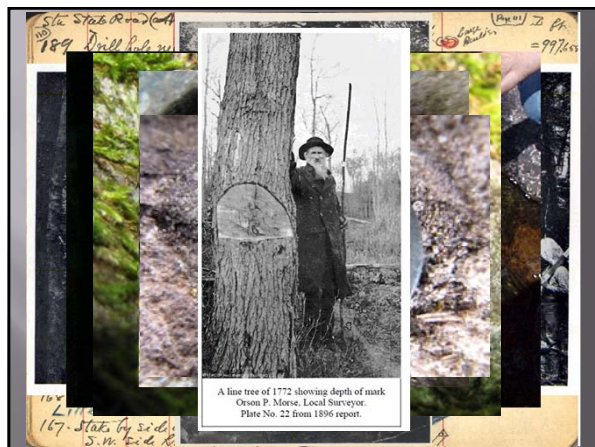
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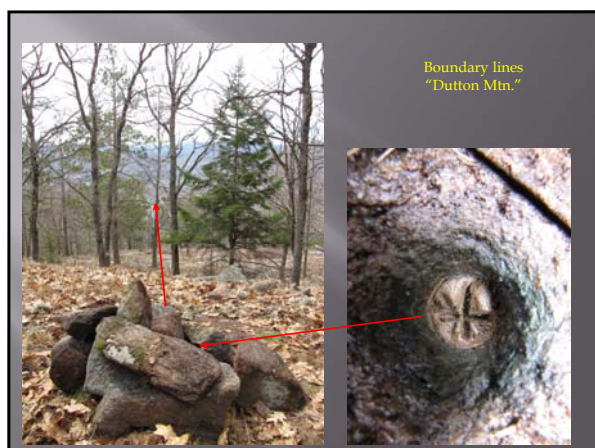
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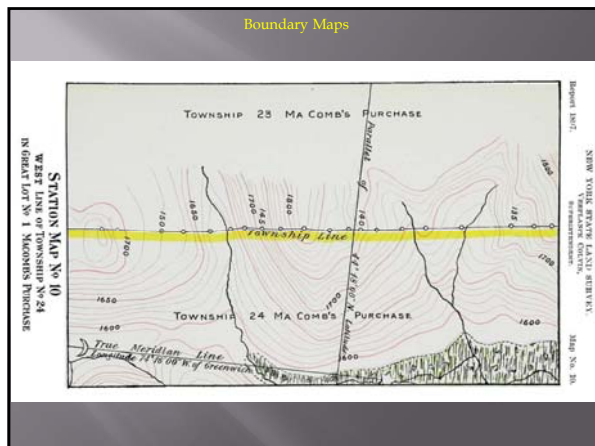
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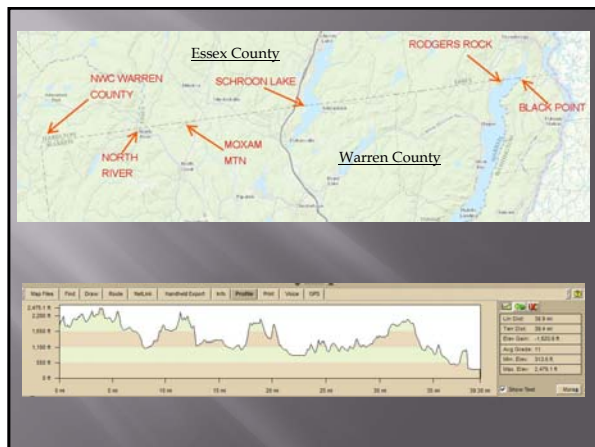
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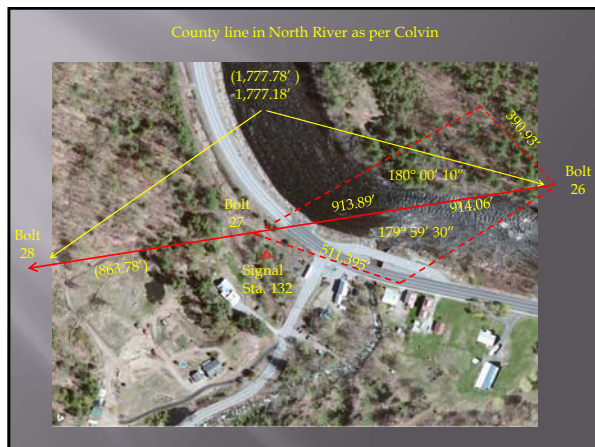
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*"The Mapping of New York State: A Study in  
the History of Cartography"*  
David Yehling Allen

"The best (and apparently only) formal evaluation of his work by professional surveyors is a report on state mapping activities made for the Assembly in 1885. This report—which was prepared by W.P. Trowbridge of Columbia College and W.S. Chaplin of Union College—purported to "have examined critically and in detail the methods employed in the Adirondack survey." Its authors remarked that: "these examinations were begun with strong prejudices, on our part, against what may be termed the scientific integrity of this survey—prejudices which were produced by an examination of Mr. Colvin's several annual reports." They concluded, however, that the triangulation and other technical work done by Colvin was of high caliber: "it is doubtful whether the survey is excelled in accuracy and detail by any survey of a similar character conducted under similar circumstances"

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Colvin & Blake at the  
"Elms" Albany NY  
Circa 1918  
Courtesy of  
Dennis Collinsworth  
Heir of Colvin's brother



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