Field Guides to The Invisible – Chicago, IL, USA

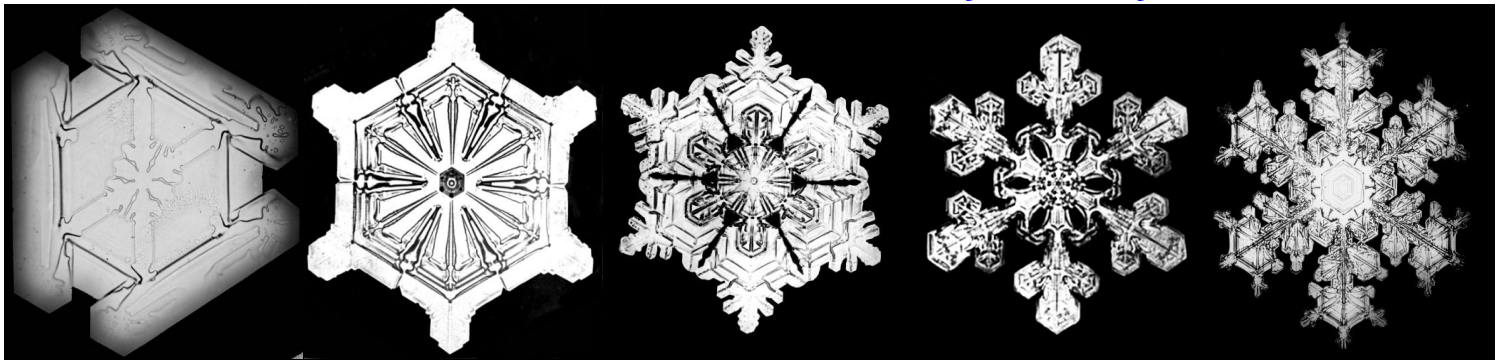
Snowflakes from the Field Museum Photo Archives

Sara Raposo[1]

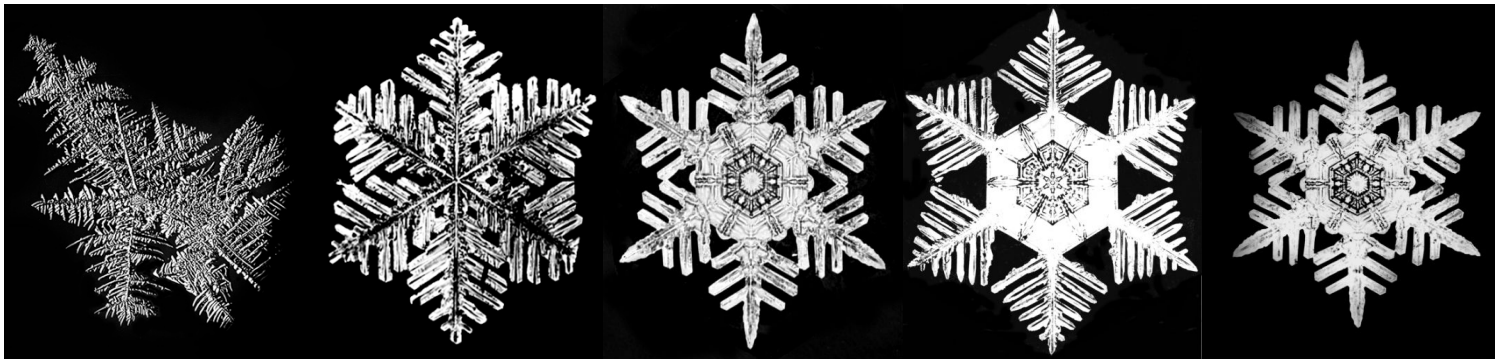
[1]Museum of Science and Industry Chicago, Former Volunteer at the Field Museum Photo Archives

Photos: Field Museum Photo Archives. Photographer: Unknown. Produced by: Sara Raposo.
 Acknowledgments: Nina Cummings.

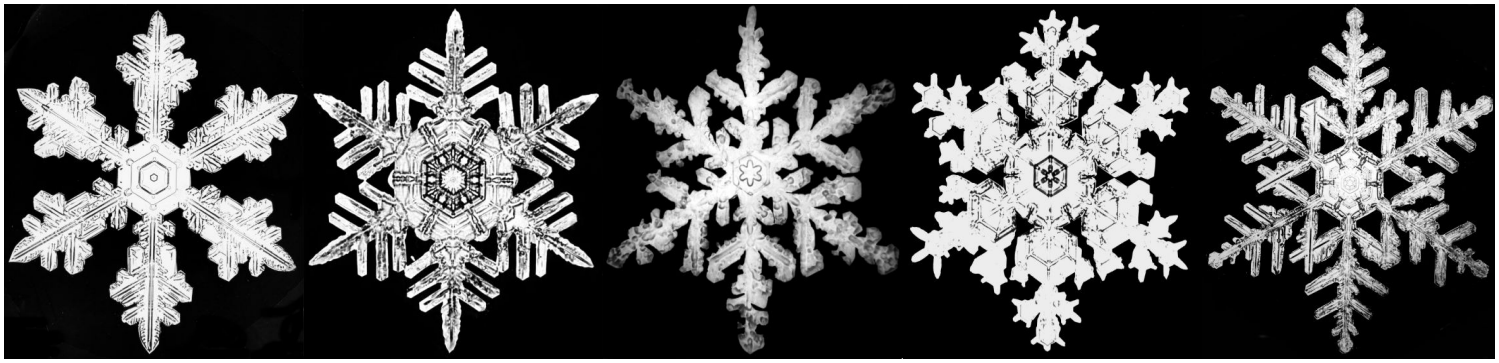
[fieldguides.fieldmuseum.org] [**1231**] version **1** 12/2019



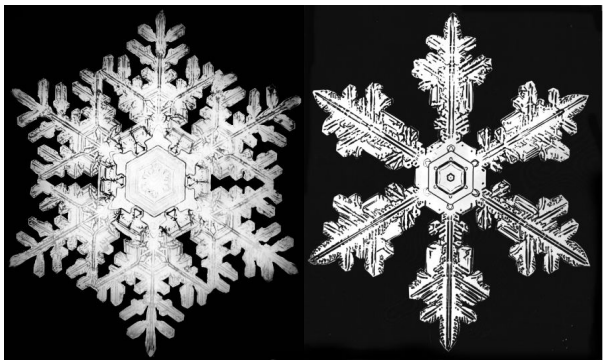
1 G2 – Plane-type Ice Crystal CSGEO3611 **2** P2 – Sector-type Crystal CSGEO3620 **3** P5 – Multiple Dendrite-type CSGEO3619 **4** P3 – Dendrite-type Crystal CSGEO3613_B **5** P3 – Dendrite-type Crystal CSGEO3630



6 P7- Radiating Plane Crystal CSGEO3222 **7** P3 – Dendrite-type Crystal CSGEO3613_C **8** P5 – Multiple Dendrite-type CSGEO3613 **9** P5 – Multiple Dendrite-type CSGEO3621 **10** P5 – Multiple Dendrite-type CSGEO3622



11 P5 – Multiple Dendrite-type CSGEO3632 **12** P5 – Multiple Dendrite-type CSGEO3693 **13** P5 – Multiple Dendrite-type CSGEO3625 **14** P5 – Multiple Dendrite-type CSGEO3626 **15** P5 – Multiple Dendrite-type CSGEO3627



16 P5 – Multiple Dendrite-type CSGEO3629 **17** P5 – Multiple Dendrite-type CSGEO3631

The snow crystals or snowflakes photo collection is composed of 19 glass plate negatives (4×5 and 5×7) from the 19th-century (1896-1898), and 20 prints. Part of the Geology Department, the prints are tagged by 'Physical Geology' and 'Frost Action' items.

The photographs were made using the photomicrographic technique used by Wilson A. Bentley (1865-1931), who developed the equipment and techniques to take photographs of individual snowflakes.

SNOWFLAKES

Classifications & shapes

COLUMN CRYSTALS

PLANE CRYSTALS

COMBINATION OF COLUMN & PLANE CRYSTALS

AGGREGATION

RIMED SNOW CRYSTALS

GERM OF ICE CRYSTALS

IRREGULAR PARTICLES

OTHER SOLID PRECIPITATION

KEY

Shape CODE

Snowflakes can occur in a huge variety of shapes. This chart shows the general and intermediate levels of classification for these shapes; they can also be divided further into elementary levels, which are not shown here.

GENERAL	INTERMEDIATE	ELEMENTARY
8 CATEGORIES	39 CATEGORIES	121 CATEGORIES

- C1 Needle-type crystal
- C2 Sheath-type crystal
- C3 Column-type crystal
- C4 Bullet-type crystal
- P1 Plate-type crystal
- P2 Sector-type crystal
- P3 Dendrite-type crystal
- P4 Composite plane-type crystal
- P5 Separated & multiple dendrite-type crystal
- P6 Spatial assemblage of plane-type crystal
- P7 Radiating assemblage of plane-type
- P8 Asymmetrical plane-type crystal
- CP1 Column with plane-type crystals
- CP2 Combination: bullets & plane-type
- CP3 Plane crystals with column-type
- CP4 Crossed plate-type crystal
- CP5 Irregular combo: column/plane-type
- CP6 Skeletal-type crystal
- CP7 Gohei twin-type crystal
- CP8 Spearhead-type crystal
- CP9 Seagull-type crystal
- A1 Aggregation of column-type crystals
- A2 Aggregation of plane-type crystals
- A3 Aggregation of column & plane-type
- R1 Rimed crystal
- R2 Densely rimed crystal
- R3 Graupel-like snow
- R4 Graupel
- G1 Column-type ice crystal
- G2 Plane-type ice crystal
- G3 Polyhedral ice-type crystal
- G4 Polycrystalline-type ice crystal
- I1 Ice particle
- I2 Rimed snow particle
- I3 Broken snow particle
- H1 Frozen hydrometeor particle
- H2 Sleet particle
- H3 Ice particle
- H4 Hailstone