What follows here is a current work-in-progress, an outline of sorts, your feedback is welcome. Please let me know if anything is missing or incorrect, or misguided, or could use more clarity.

Fundamental terminology:
- Dimension = A pill that is configured as a Dimension, meaning its field is in the Group By clause in the query to the data source, setting the level of detail.
- Measure = A pill that is configured as a Measure or Attribute, meaning an aggregation.
- Discrete = A blue pill - each value individually
- Continuous = A green pill - each value on a scale

The combination of these two binary options are the 4 Pill Types of Tableau:
- Discrete Dimension
- Discrete Measure
- Continuous Dimension
- Continuous Measure

General Concepts:
- Compute using = Specified Dimensions to be used for Addressing, all other Dimensions (or Discrete Measures set to not be ignored in table calculations) will Partition.
- Relative Compute using = Compute using setting that does not specify Dimensions directly, eg Table Down, Cell.
- Effective Compute using = The Dimensions that the Relative Compute using currently translates to, eg if the only Dimension pill on the Rows shelf is a Date pill, and the Compute using is Table Across, then the Effective Compute using is that Date pill. (The TOTAL() and quick table calc Percent of Total also include Dimensions on the Marks card for addressing when using a Relative Compute using)
- Range Aware = A Dimension pill with a field data type of either Date, Date Time, or Bin. The exception is a Date Time set to Exact Date.
- Opposing Shelves = The Rows and Columns shelves are Opposing Shelves

Concepts directly related to our discussion:
- Sparse Data = Data where not all potential combination of Dimension values exist in the data returned from the data source.
- Data Densification = Umbrella term that encompasses all situations where Tableau adds Marks for Dimension value combinations.
- Domain Completion = Marks are added for potential Dimension value combinations
- Domain Padding = Marks are added for potential values in the range of a Range Aware pill

It is possible for Domain Completion and Domain Padding to happen at the same time.

Initiation, requirement to turn on:
- Domain Completion = Initiated with 2 or more Dimensional pills
- Domain Padding = Initiated with Show Missing Values from a Range Aware pill

(These are necessary conditions, not always sufficient, because there are exceptions)

Ways to turn on Domain Completion:
Crosstab - this occurs when there are discrete dimensions on opposing Shelves, and a table calculation configured with 1 or more, but not all Dimensions as Addressing (Compute Using).

Date - Tableau automatically completes the domain for date data type discrete dimensions when there's a table calculation configured to use only a single date field for addressing (Compute Using).

Line/Area/Polygon Mark Type - When the mark type is Line Area or Polygon, and either with a Discrete Dimension on rows or columns, or with a Continuous Dimension on the Rows or Columns and Stack Marks on.

At the Level - With a Discrete Dimension on the Rows or Columns, and another Discrete Dimension on the Marks Card, and a table calculation with an Advanced Compute Using, with the Dimension that is on the Marks card at the top, and At the Level set to use that dimension that is on the Marks card.

Ways to turn on Domain Padding:
Show Missing Values - Using a Range Aware pill on the Rows or Columns shelf, it can be turned on from its right-click context menu

Ways to turn on Turns on Both:
Show Empty Rows/Columns - The Menu option Analysis->Table Layout->Show Empty Rows/Columns can turn on both types of Data Densification when there is a date data type discrete dimension on the Rows/Columns shelf, respectively.

Turning off:
Filtering on a table calculation is NOT turning off data densification because the densification is still happening, the a filter just removes marks from the view, the filter happens after the densification.

- Domain Completion = 1. Turned off when all Dimensions used for addressing are on neither the Row or Columns shelf as Discrete Dimensions. 2. Turned off when all Dimensions are on

the same shelf, either Rows or Columns. 3. No Dimension pills on either the Columns or Rows shelf, can be Measure pills
- Domain Padding = 1. Turned off when Range Aware pill is Continuous and there is a Continuous pill on the Opposing Shelf. 2. Turned off when Range Aware pill is moved off of the Rows/Columns shelf.

Discrete Dimension pills can be replaced with Discrete Measure pills to replicate the same view. The downside of using a Measure instead of a Dimension on the Rows/Columns shelves is we lose the ability to sort the pill values directly with a Measure.

Exceptions to Turning off:
- Domain Completion = 1. None Known. 2. When the effective Compute using is a Date or Datetime data type, then Domain Completion will not turn off. 3. None Known
- Domain Padding = For both 1. and 2. Add a table calculation to the worksheet that uses the Range Aware pill Effectively for Compute using to keep Domain Padding on.