

Viridis colour scales from viridisLite

Source: `R/scale-viridis.r` (<https://github.com/tidyverse/ggplot2/blob/master/R/scale-viridis.r>), `R/zxx.r` (<https://github.com/tidyverse/ggplot2/blob/master/R/zxx.r>)

The `viridis` scales provide colour maps that are perceptually uniform in both colour and black-and-white. They are also designed to be perceived by viewers with common forms of colour blindness. See also <https://bids.github.io/colormap/> (<https://bids.github.io/colormap/>).

```
scale_colour_viridis_d(..., alpha = 1, begin = 0, end = 1,
  direction = 1, option = "D", aesthetics = "colour")

scale_fill_viridis_d(..., alpha = 1, begin = 0, end = 1,
  direction = 1, option = "D", aesthetics = "fill")

scale_colour_viridis_c(..., alpha = 1, begin = 0, end = 1,
  direction = 1, option = "D", values = NULL, space = "Lab",
  na.value = "grey50", guide = "colourbar", aesthetics = "colour")

scale_fill_viridis_c(..., alpha = 1, begin = 0, end = 1,
  direction = 1, option = "D", values = NULL, space = "Lab",
  na.value = "grey50", guide = "colourbar", aesthetics = "fill")
```

Arguments

... Other arguments passed on to `discrete_scale()` ([discrete_scale.html](#)) or `continuous_scale()` ([continuous_scale.html](#)) to control name, limits, breaks, labels and so forth.

alpha The alpha transparency, a number in $[0,1]$, see argument `alpha` in `hsv` (<https://www.rdocumentation.org/packages/grDevices/topics/hsv>).

begin The (corrected) hue in [0,1] at which the viridis colormap begins.

end The (corrected) hue in [0,1] at which the viridis colormap ends.

direction Sets the order of colors in the scale. If 1, the default, colors are ordered from darkest to lightest. If -1, the order of colors is reversed.

option A character string indicating the colormap option to use. Four options are available: "magma" (or "A"), "inferno" (or "B"), "plasma" (or "C"), "viridis" (or "D", the default option) and "cividis" (or "E").

aesthetics Character string or vector of character strings listing the name(s) of the aesthetic(s) that this scale works with. This can be useful, for example, to apply colour settings to the `colour` and `fill` aesthetics at the same time, via `aesthetics = c("colour", "fill")`.

values if colours should not be evenly positioned along the gradient this vector gives the position (between 0 and 1) for each colour in the `colours` vector. See `rescale()` for a convenience function to map an arbitrary range to between 0 and 1.

space colour space in which to calculate gradient. Must be "Lab" - other values are deprecated.

na.value Missing values will be replaced with this value.

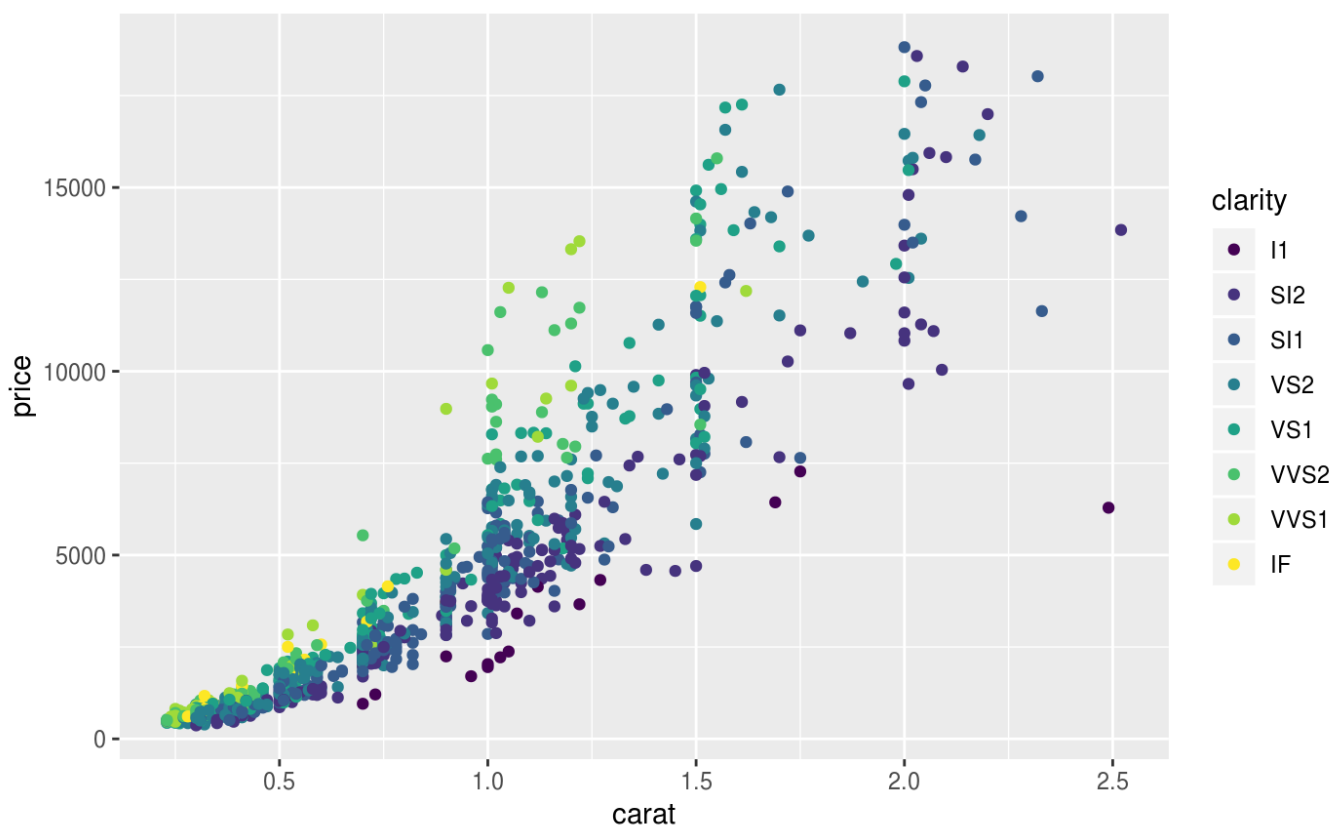
guide A function used to create a guide or its name. See `guides()` ([guides.html](#)) for more info.

See also

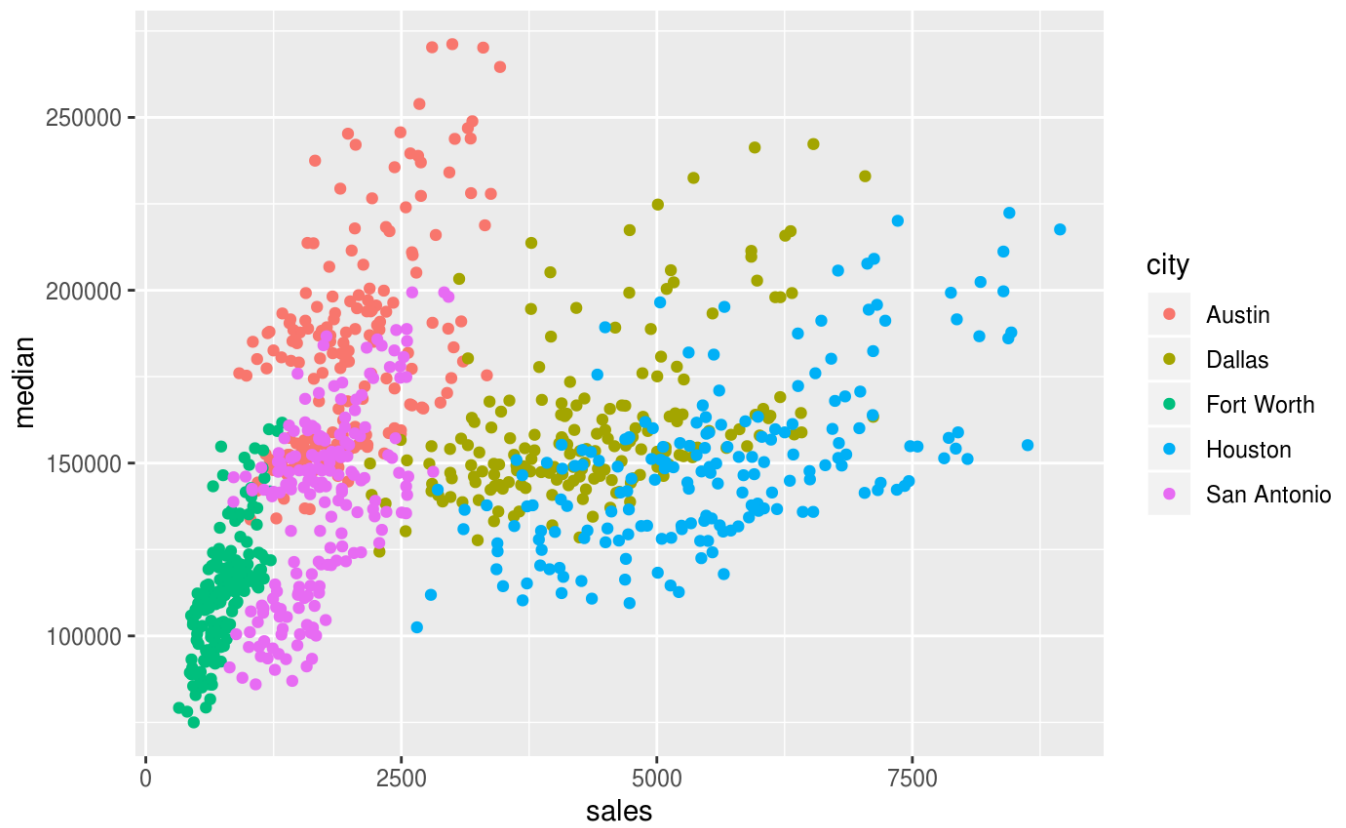
Other colour scales: `scale_alpha` ([scale_alpha.html](#)), `scale_colour_brewer` ([scale_brewer.html](#)), `scale_colour_gradient` ([scale_gradient.html](#)), `scale_colour_grey` ([scale_grey.html](#)), `scale_colour_hue` ([scale_hue.html](#))

Examples

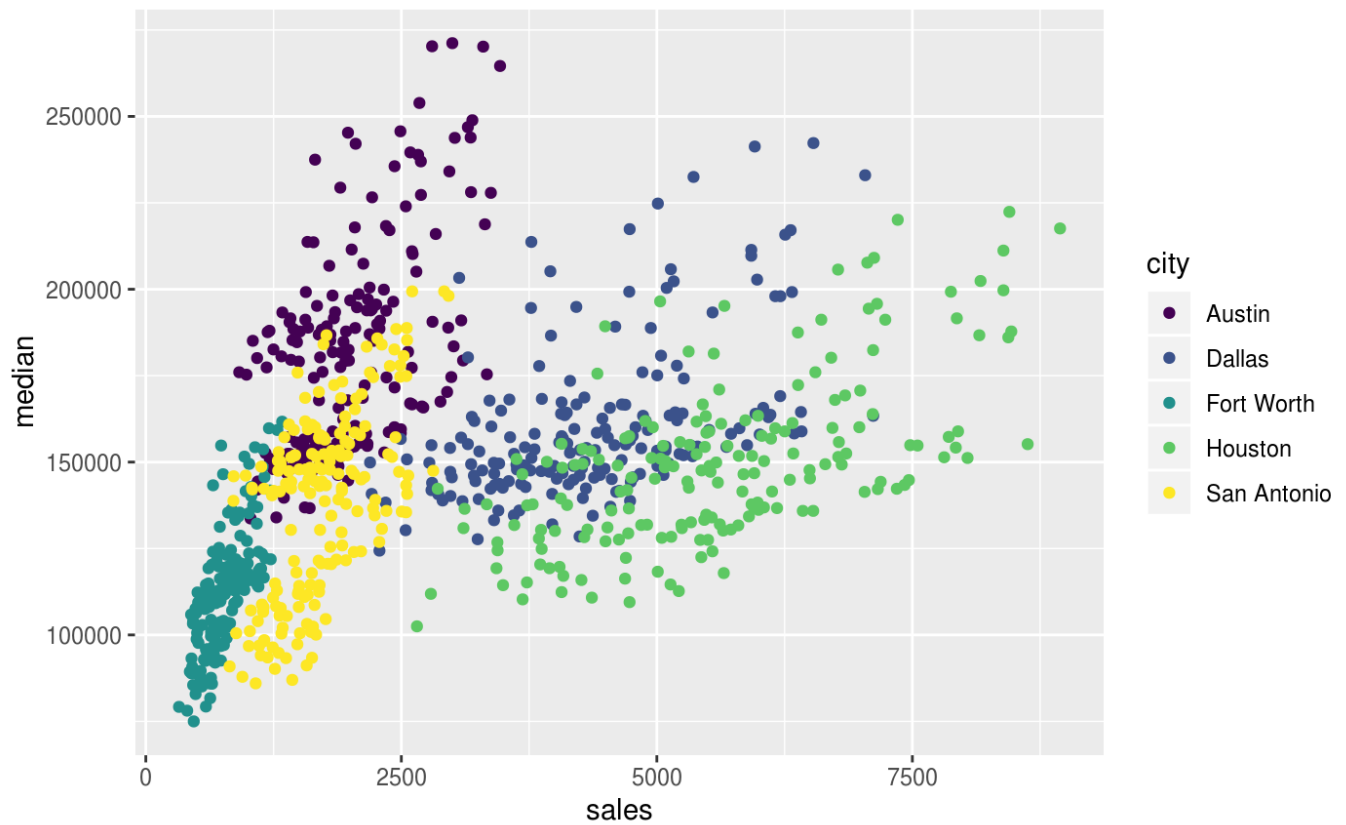
```
# viridis is the default colour/fill scale for ordered factors
dsamp <- diamonds[sample (https://www.rdocumentation.org/packages/base/topics/samp
ggplot (ggplot.html)(dsamp, aes (aes.html)(carat, price)) +
  geom_point (geom_point.html)(aes (aes.html)(colour = clarity))
```



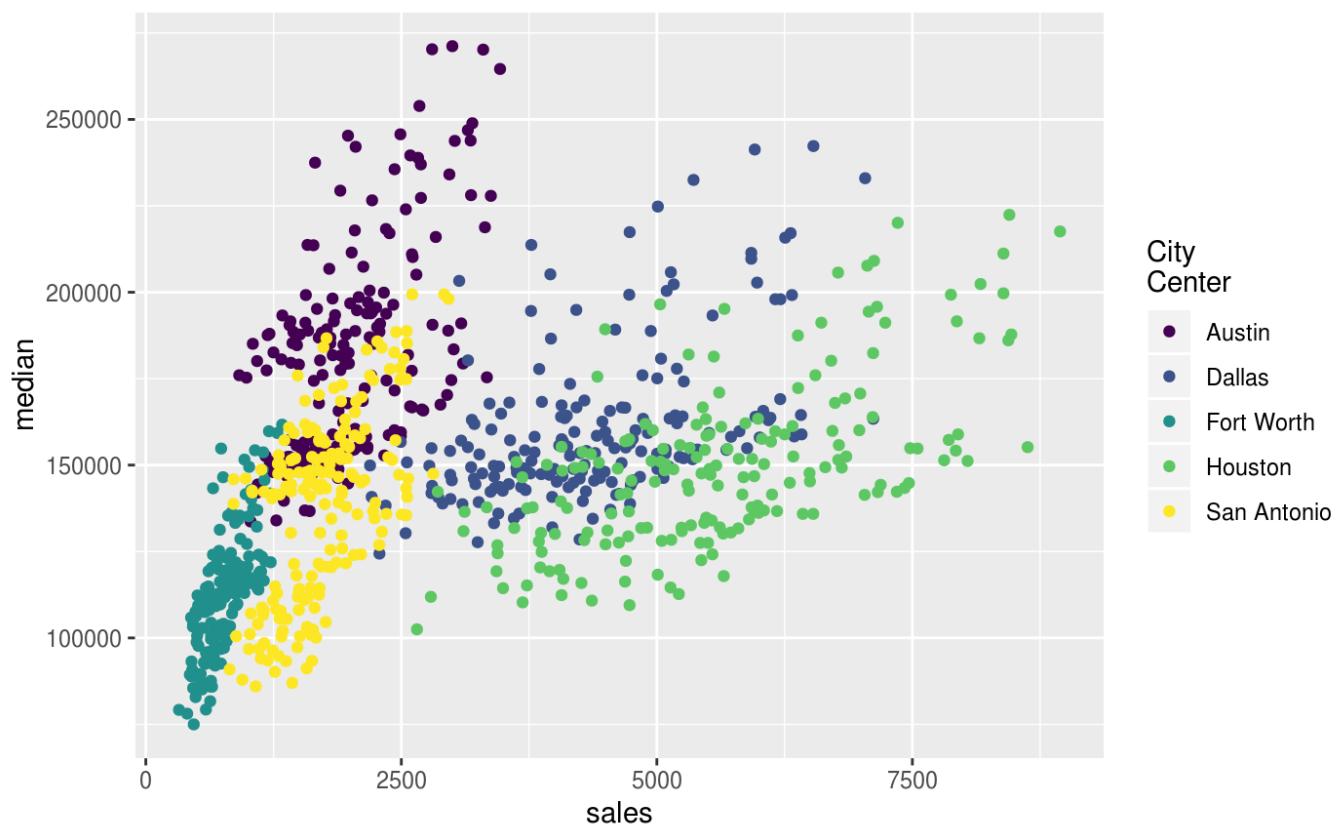
```
# Use viridis_d with discrete data
txsamp <- subset (https://www.rdocumentation.org/packages/base/topics/subset)(txho
  c (https://www.rdocumentation.org/packages/base/topics/c)("Houston", "Fort Worth
(d <- ggplot (ggplot.html)(data = txsamp, aes (aes.html)(x = sales, y = median)) +
  geom_point (geom_point.html)(aes (aes.html)(colour = city)))
```



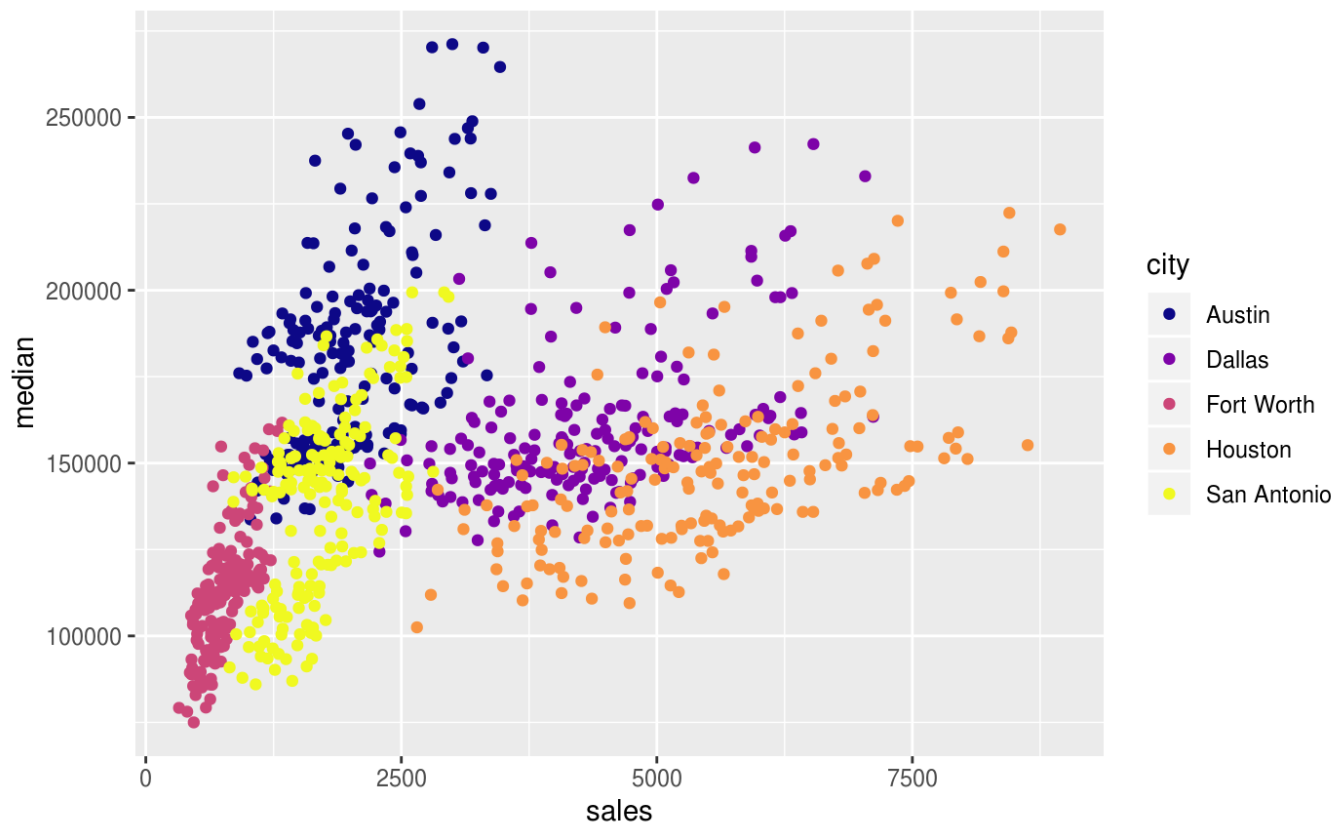
```
d + scale_colour_viridis_d()
```



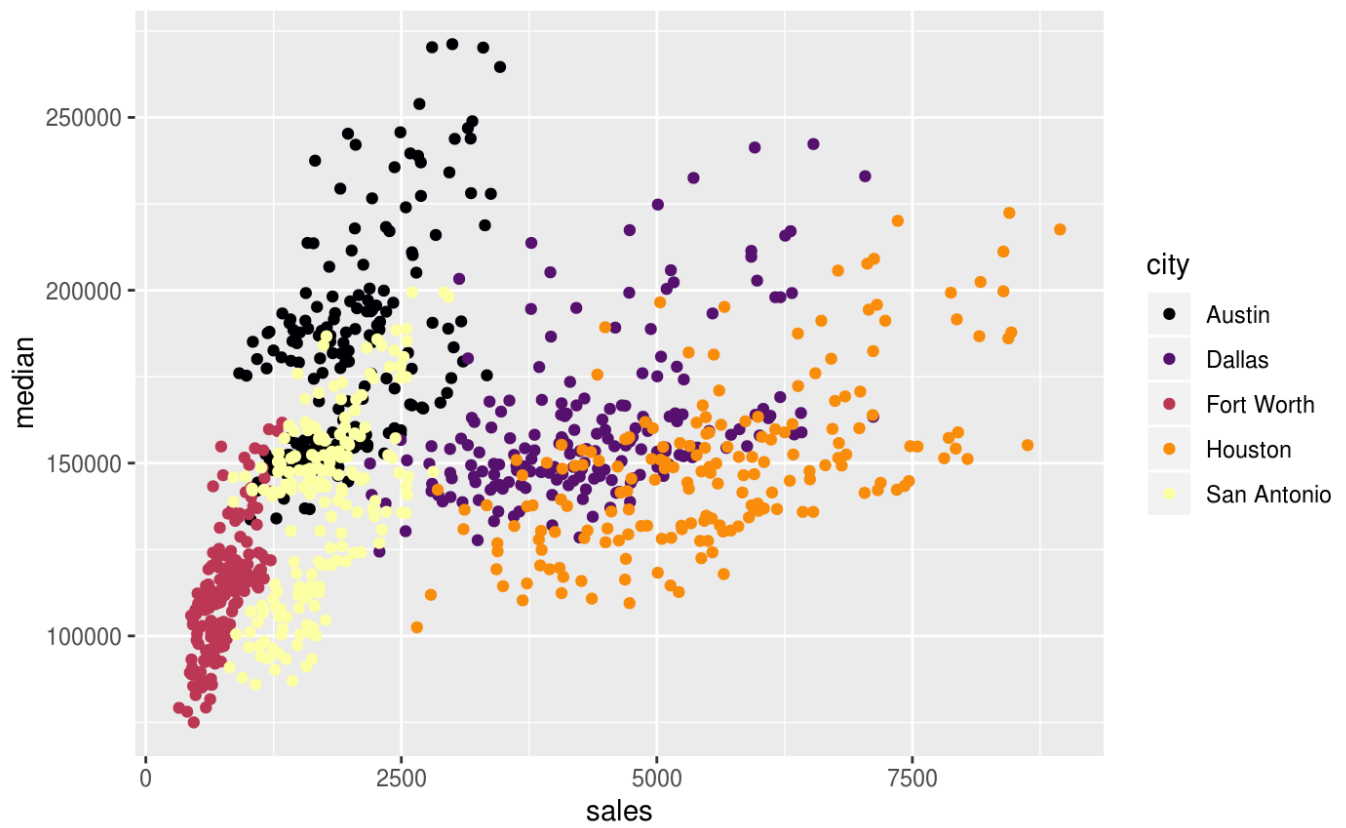
```
# Change scale label
d + scale_colour_viridis_d("City\nCenter")
```



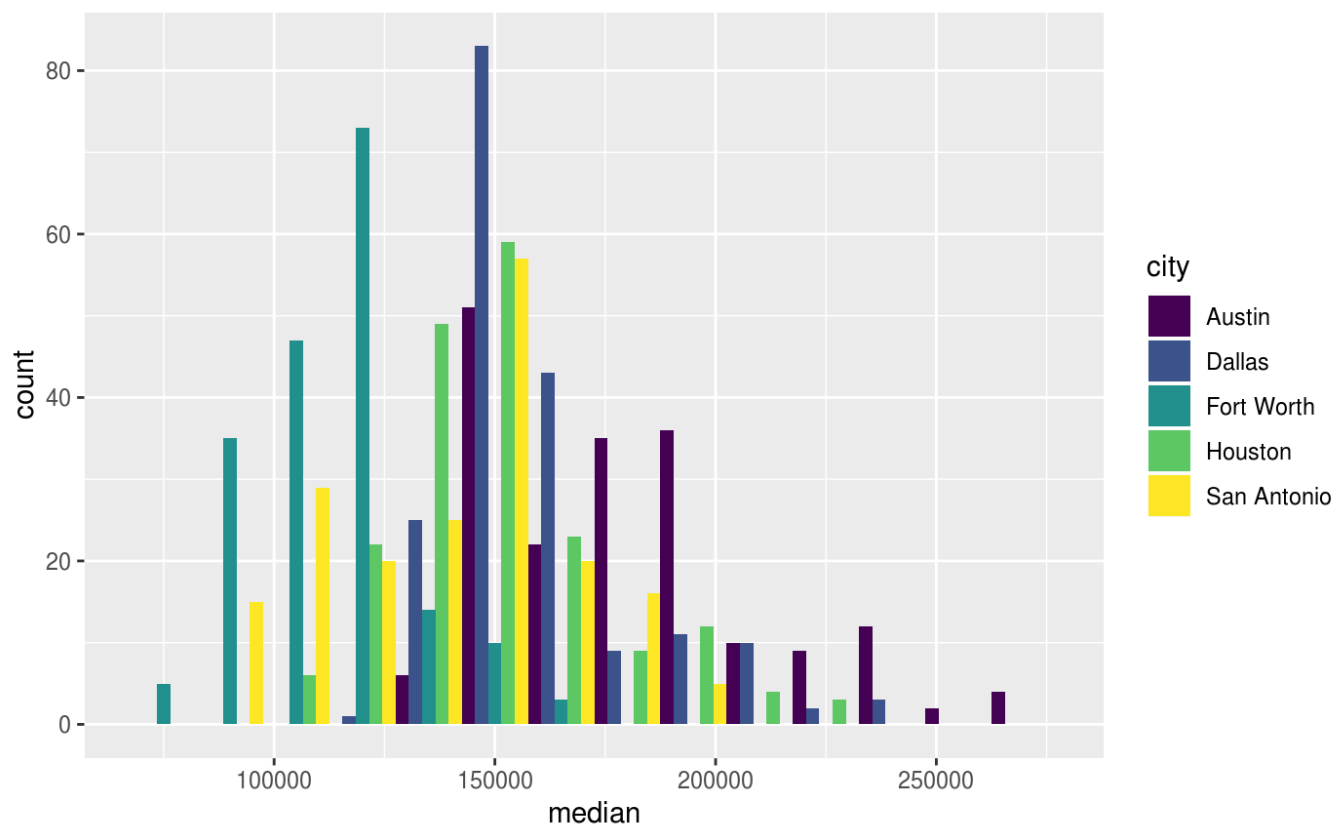
```
# Select palette to use, see ?scales::viridis_pal for more details
d + scale_colour_viridis_d(option = "plasma")
```



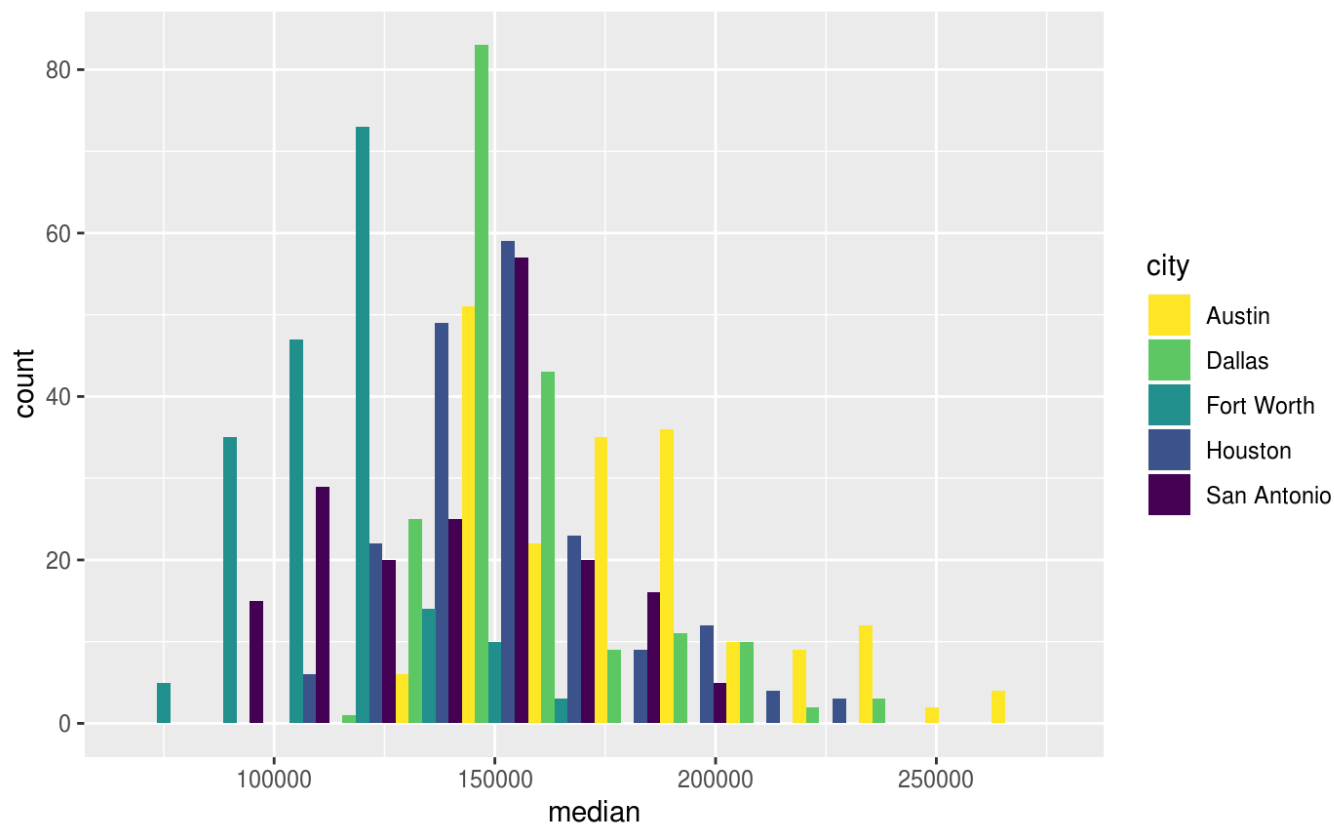
```
d + scale_colour_viridis_d(option = "inferno")
```



```
# scale_fill_viridis_d works just the same as
# scale_colour_viridis_d but for fill colours
p <- ggplot (ggplot.html)(txsamp, aes (aes.html)(x = median, fill = city)) +
  geom_histogram (geom_histogram.html)(position = "dodge", binwidth = 15000)
p + scale_fill_viridis_d()
```

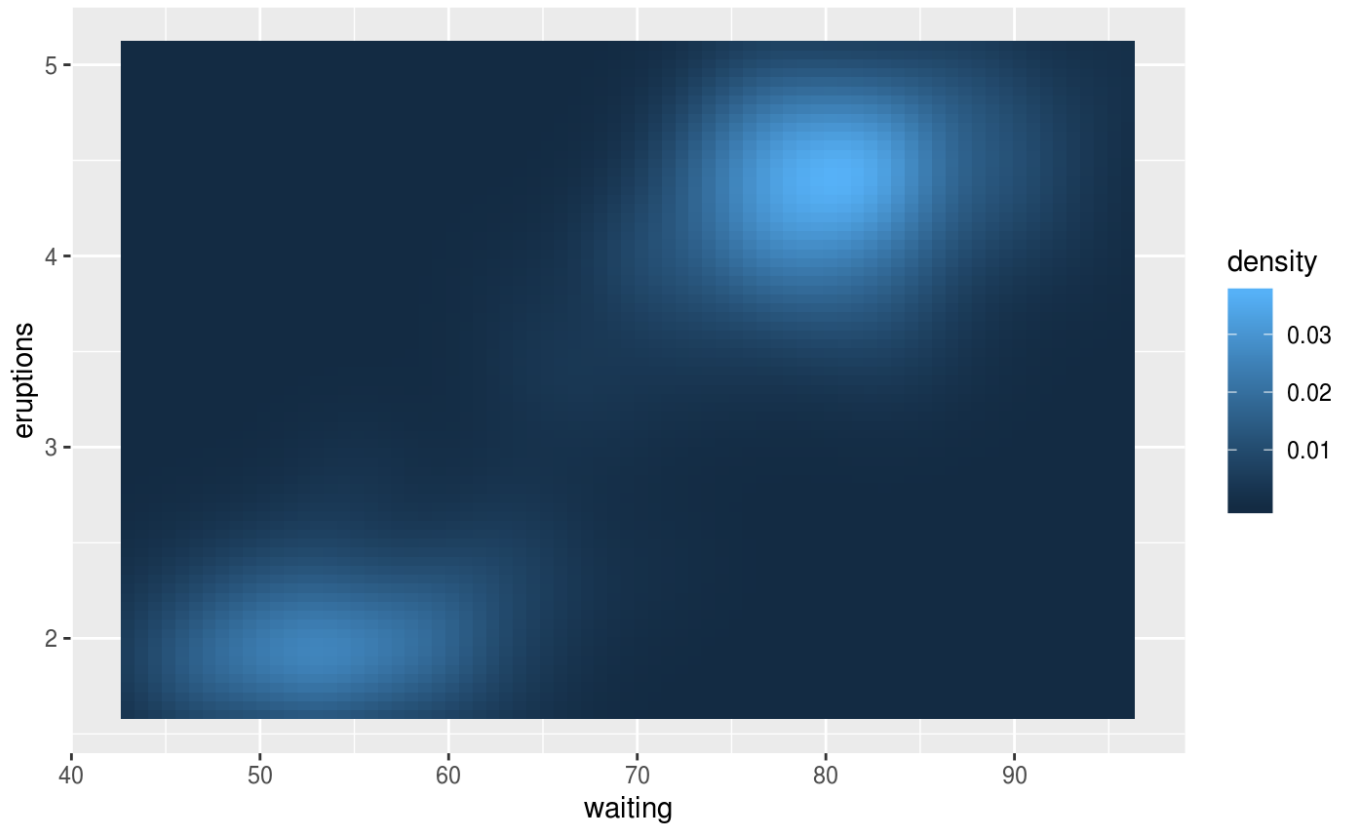


```
# the order of colour can be reversed
p + scale_fill_viridis_d(direction = -1)
```

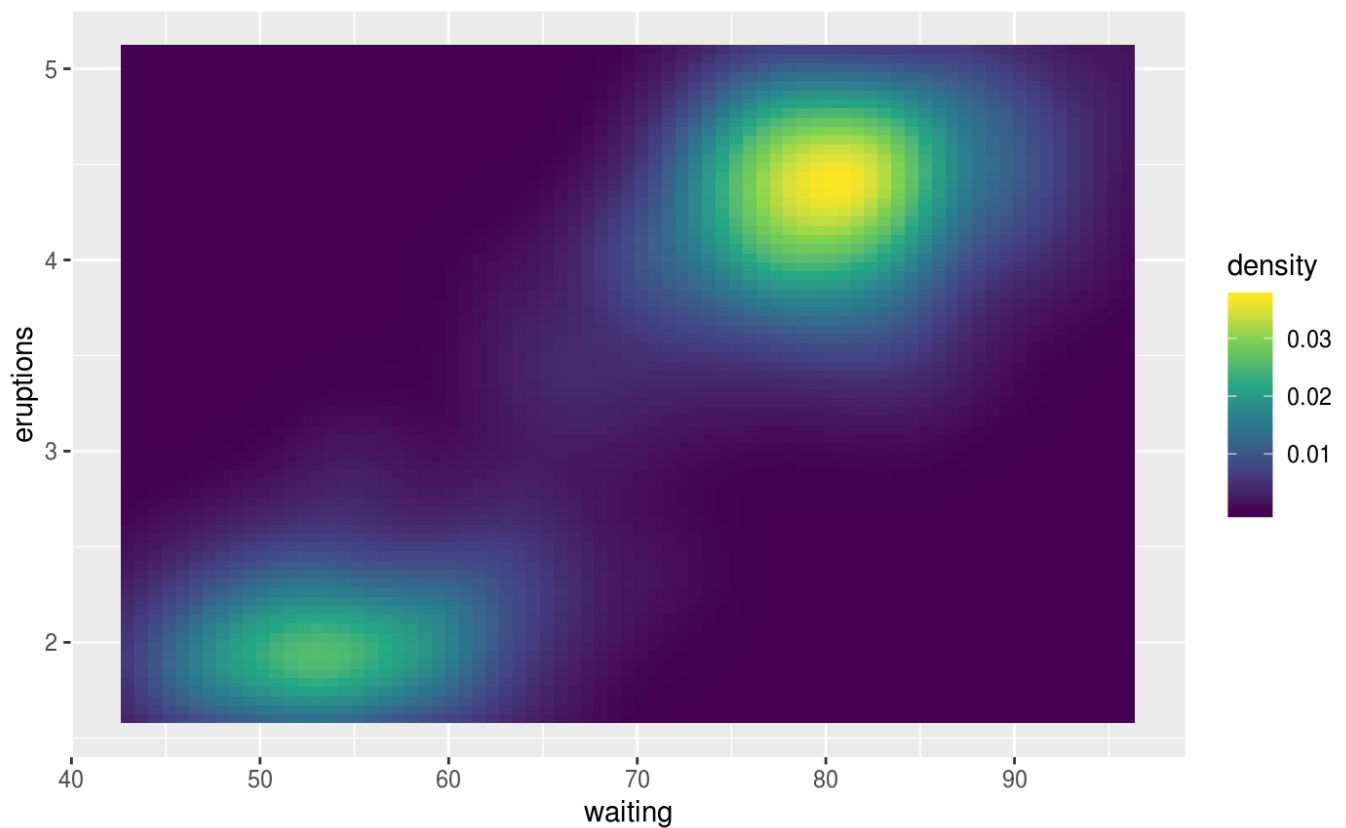


```
# Use viridis_c with continuous data
```

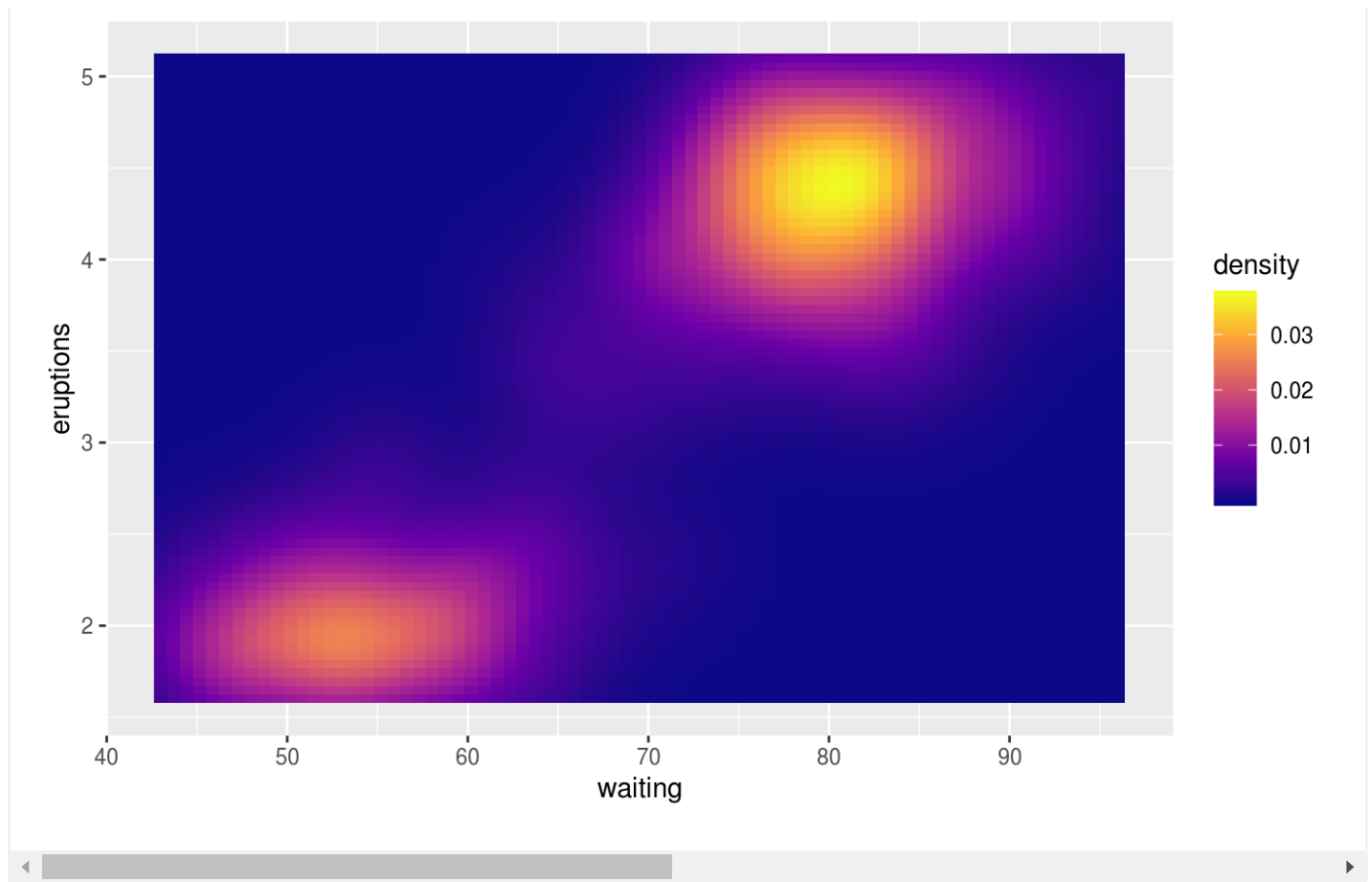
```
(v <- ggplot (ggplot.html)(faithfuld) +  
  geom_tile (geom_tile.html)(aes (aes.html)(waiting, eruptions, fill = density)))
```



```
v + scale_fill_viridis_c()
```



```
v + scale_fill_viridis_c(option = "plasma")
```

ggplot2 is a part of the **tidyverse**, an ecosystem of packages designed with common APIs and a shared philosophy. Learn more at tidyverse.org (<https://tidyverse.org>).

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