

Package ‘MetBrewer’

March 21, 2022

Type Package

Title Color Palettes Inspired by Works at the Metropolitan Museum of Art

Version 0.2.0

Author Blake Robert Mills

Maintainer Blake Robert Mills <blakerobertmills@gmail.com>

Description Palettes Inspired by Works at the Metropolitan Museum of Art in New York. Currently contains over 50 color schemes and checks for colorblind-friendliness of palettes. Colorblind accessibility checked using the '{colorblindcheck}' package by Jakub Nowosad<<https://jakubnowosad.com/colorblindcheck/>>.

Imports ggplot2

License CC0

Encoding UTF-8

RoxygenNote 7.1.2

NeedsCompilation no

Repository CRAN

Date/Publication 2022-03-21 13:30:02 UTC

R topics documented:

colorblind.friendly	2
colorblind_palettes	2
display_all	3
met.brewer	4
MetPalettes	5
scale_color_met_c	6
scale_color_met_d	6
scale_colour_met_c	7
scale_colour_met_d	8
scale_fill_met_c	9
scale_fill_met_d	9

Index	11
--------------	-----------

colorblind.friendly *Colorblind-Friendly Palette Check*

Description

Checks whether a palette is colorblind-friendly. Colorblind-friendliness tested using the 'colorblindcheck' package. To be colorblind-friendly, all colors in the palettes must be distinguishable with deuteranopia, protanopia, and tritanopia.

Usage

```
colorblind.friendly(palette_name)
```

Arguments

palette_name Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing

Value

TRUE/FALSE value whether palette is colorblind-friendly

Examples

```
colorblind.friendly("Veronese")
```

colorblind_palettes *Names of colorblind-friendly palettes*

Description

Lists all palettes that are colorblind-friendly in the package. To be colorblind-friendly, all colors in the palettes must be distinguishable with deuteranopia, protanopia, and tritanopia. Use [met.brewer](#) to construct palettes or [colorblind.friendly](#) to test for colorblind-friendliness.

Usage

```
colorblind_palettes
```

Format

An object of class character of length 24.

`display_all`*View all Palettes available*

Description

Function for viewing all palettes available in MetBrewer.

Usage

```
display_all(  
  n,  
  sequential = FALSE,  
  colorblind_only = FALSE,  
  direction = 1,  
  override.order = FALSE  
)
```

Arguments

<code>n</code>	Number of requested colors. If <code>n</code> is left blank, default palette is returned.
<code>sequential</code>	Should palettes displayed all at once, or one at a time. Default is all at once (FALSE).
<code>colorblind_only</code>	Should only colorblind friendly palettes be returned? Default is set to FALSE.
<code>direction</code>	Sets order of colors. Default palette is 1. If <code>direction</code> is -1, palette color order is reversed
<code>override.order</code>	Colors are picked from palette to maximize readability and aesthetics. This means that colors are not always selected in sequential order from the full palette. If <code>override.order</code> is set to TRUE, colors are selected in sequential order from the full palette instead. Default is FALSE.

Examples

```
# All Palettes  
display_all(sequential = FALSE, colorblind_only = FALSE)  
  
# All Colorblind Palettes  
display_all(sequential = FALSE, colorblind_only = TRUE)  
  
# 5 Colors of all Palettes  
display_all(5, sequential = FALSE, colorblind_only = FALSE)
```

met.brewer

*Met Palette Generator***Description**

Color palettes inspired by works at The Metropolitan Museum of Art. Complete list of palette colors and the works that inspired them can be found [on Github](#). Use `colorblind.friendly` to check whether palettes are colorblind-friendly.

Usage

```
met.brewer(
  name,
  n,
  type = c("discrete", "continuous"),
  direction = c(1, -1),
  override.order = FALSE
)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
n	Number of desired colors. If number of requested colors is beyond the scope of the palette, colors are automatically interpolated. If n is not provided, the length of the palette is used.
type	Either "continuous" or "discrete". Use continuous if you want to automatically interpolate between colors.
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
override.order	Colors are picked from palette to maximize readability and aesthetics. This means that colors are not always selected in sequential order from the full palette. If override.order is set to TRUE, colors are selected in sequential order from the full palette instead. Default is FALSE.

Value

A vector of colors.

Examples

```
met.brewer("VanGogh1")

met.brewer("Greek", direction=-1)

met.brewer("Cassatt2", 4, override.order=TRUE)

library(ggplot2)
ggplot(data=iris, aes(x=Species, y=Petal.Length, fill=Species)) +
  geom_violin() +
  scale_fill_manual(values=met.brewer("Greek", 3))

ggplot(data=iris, aes(x=Sepal.Length, y=Sepal.Width, color=Species)) +
  geom_point(size=2) +
  scale_color_manual(values=met.brewer("Renoir", 3))

ggplot(data=iris, aes(x=Species, y=Sepal.Width, color=Sepal.Width)) +
  geom_point(size=3) +
  scale_color_gradientn(colors=met.brewer("Isfahan1"))
```

MetPalettes

Complete list of palettes.

Description

Use `names(MetPalettes)` to return all possible palette names. Current choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing. Use [met.brewer](#) to construct palettes.

Usage

```
MetPalettes
```

Format

An object of class `list` of length 56.

scale_color_met_c *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_color_met_c(name, direction = 1, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
...	Other arguments passed on to scale_color_gradientn

Examples

```
library(ggplot2)
ggplot(data=iris, aes(x=Sepal.Length, y=Sepal.Width, color=Sepal.Length)) +
  geom_point() +
  scale_color_met_c("Isfahan1", direction=-1)
```

scale_color_met_d *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_color_met_d(name, direction = 1, override.order = FALSE, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
override.order	Colors are picked from palette to maximize readability and aesthetics. This means that colors are not always selected in sequential order from the full palette. If override.order is set to TRUE, colors are selected in sequential order from the full palette instead. Default is FALSE.
...	Other arguments passed on to discrete_scale

Examples

```
library(ggplot2)
ggplot(data=iris, aes(x=Sepal.Length, y=Sepal.Width, color=Species)) +
  geom_point() +
  scale_color_met_d("Juarez")
```

scale_colour_met_c *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_colour_met_c(name, direction = 1, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
------	--

direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
...	Other arguments passed on to scale_color_gradientn

Examples

```
library(ggplot2)
ggplot(data=iris, aes(x=Sepal.Length, y=Sepal.Width, color=Sepal.Length)) +
  geom_point() +
  scale_colour_met_c("Isfahan1", direction=-1)
```

scale_colour_met_d *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_colour_met_d(name, direction = 1, override.order = FALSE, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
override.order	Colors are picked from palette to maximize readability and aesthetics. This means that colors are not always selected in sequential order from the full palette. If override.order is set to TRUE, colors are selected in sequential order from the full palette instead. Default is FALSE.
...	Other arguments passed on to discrete_scale

Examples

```
library(ggplot2)
ggplot(data=iris, aes(x=Sepal.Length, y=Sepal.Width, color=Species)) +
  geom_point() +
  scale_colour_met_d("Juarez")
```

scale_fill_met_c *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_fill_met_c(name, direction = 1, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
...	Other arguments passed on to scale_color_gradientn

scale_fill_met_d *MetBrewer palettes for plotting with ggplot2*

Description

Function for using MetBrewer colors schemes in ggplot2. Use [scale_color_met_d](#) and [scale_fill_met_d](#) for discrete scales and [scale_color_met_c](#) and [scale_fill_met_c](#) for continuous scales.

Usage

```
scale_fill_met_d(name, direction = 1, override.order = FALSE, ...)
```

Arguments

name	Name of Palette. Choices are: Archambault, Austria, Benedictus, Cassatt1, Cassatt2, Cross, Degas, Demuth, Derain, Egypt, Gauguin, Greek, Hiroshige, Hokusai1, Hokusai2, Hokusai3, Homer1, Homer2, Ingres, Isfahan1, Isfahan2, Java, Johnson, Juarez, Kandinsky, Klimt, Lakota, Manet, Monet, Moreau, Morgenstern, Nattier, Navajo, NewKingdom, Nizami, OKeeffe1, OKeeffe2, Paquin, Peru1, Peru2, Pillement, Pissaro, Redon, Renoir, Signac, Tam, Tara, Thomas, Tiepolo, Troy, Tsimshian, VanGogh1, VanGogh2, VanGogh3, Veronese, and Wissing
direction	Sets order of colors. Default palette is 1. If direction is -1, palette color order is reversed
override.order	Colors are picked from palette to maximize readability and aesthetics. This means that colors are not always selected in sequential order from the full palette. If override.order is set to TRUE, colors are selected in sequential order from the full palette instead. Default is FALSE.
...	Other arguments passed on to discrete_scale

Examples

```
library(ggplot2)
ggplot(data=iris, aes(x=Species, y=Sepal.Length, fill=Species)) +
  geom_violin() +
  scale_fill_met_d("Lakota")
```

Index

* colors

met.brewer, 4

* datasets

colorblind_palettes, 2

MetPalettes, 5

colorblind.friendly, 2, 2, 4

colorblind_palettes, 2

discrete_scale, 7, 8, 10

display_all, 3

met.brewer, 2, 4, 5

MetPalettes, 5

scale_color_gradientn, 6, 8, 9

scale_color_met_c, 6, 6, 7-9

scale_color_met_d, 6, 6, 7-9

scale_colour_met_c, 7

scale_colour_met_d, 8

scale_fill_met_c, 6-9, 9

scale_fill_met_d, 6-9, 9