Package ‘layer’

January 7, 2022

Title Tilts your Maps and Turns Them into Ggplot Objects
Version 0.0.1
Description Simplifies the whole process of creating stacked tilted maps, that are often used in scientific publications to show different environmental layers for a geographical region. Tilting maps and layering them allows to easily draw visual correlations between these environmental layers.
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### Landscape 1.

**Description**

Random curd neutral landscape model.

**Usage**

```r
landscape_1
```

**Format**

raster object

**Source**

NLMR package

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### Landscape 2.

**Description**

Fractional Brownian motion neutral landscape model.

**Usage**

```r
landscape_2
```

**Format**

raster object

**Source**

NLMR package
**landscape_3**

*Description*
Distance gradient neutral landscape model.

*Usage*

```r
calculate_distance_gradient_landscape()
```

*Format*
raster object

*Source*
NLMR package

---

**landscape_points**

*Description*
Random curd neutral landscape model.

*Usage*

```r
calculate_random_curv_landscape()
```

*Format*
raster object

*Source*
NLMR package
plot_tiltedmaps  

Tilt raster and sf data

Description

Takes tilted maps and plots them with ggplot.

Usage

```r
plot_tiltedmaps(
  map_list,
  layer = NA,
  palette = "viridis",
  color = "grey50",
  direction = 1,
  begin = 0,
  end = 1,
  alpha = 1
)
```

Arguments

- **map_list**: sf or terra/stars/raster object.
- **layer**: vector or list of names of each column in tilted sf object that should be used for coloring.
- **palette**: vector of palettes provided by the viridis and scico packages for rasters.
- **color**: a single color applied multiple times or a vector of color strings for points or linestrings.
- **direction**: vector of directions for viridis and scico color palettes.
- **begin**: vector of the of the start of interval the palette to sample colours from for viridis and scico color palettes.
- **end**: vector of the of the end of interval the palette to sample colours from for viridis and scico color palettes.
- **alpha**: vector of opacity for viridis and scico color palettes.

Value

ggplot

Examples

```r
# tilt data
tilt_landscape_1 <- tilt_map(landscape_1)
tilt_landscape_2 <- tilt_map(landscape_2, x_shift = 50, y_shift = 50)

# put in list
```
tilt_map

map_list <- list(tilt_landscape_1, tilt_landscape_2)

# plot
plot_tiltedmaps(map_list, palette = "turbo")

---

**Tilt raster and sf data**

description

Tilt and shift maps in any direction.

Usage

tilt_map(
  data,
  x_stretch = 2,
  y_stretch = 1.2,
  x_tilt = 0,
  y_tilt = 1,
  x_shift = 0,
  y_shift = 0
)

Arguments

data: sf or terra/stars/raster object.
x_stretch: Stretch in x dimension
y_stretch: Stretch in y dimension
x_tilt: Tilt in x dimension
y_tilt: Tilt in y dimension
x_shift: Shift in x dimension
y_shift: Shift in y dimension

Details


Value

sf

Examples

tilt_map(landscape_1)
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