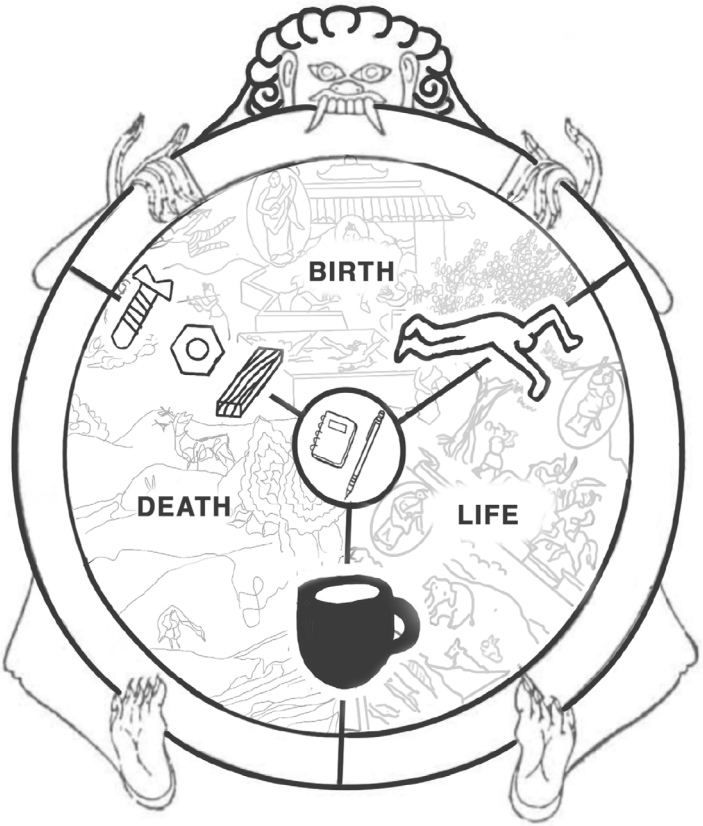
SAMSARA

A cookbook on circularity of objects



Atacan Tutulmazay

0. INDEX

1. MANIFESTO

The world is designed. Throughout years and different practices everything around us, nature, objects, thoughts, policies, and lives have been designed.

But design, got ***boring***.

Design got boring in the way that, with our short-termed ambitions the values centered around objects has been reduced from what the value of life actually is to the value of monetary concerns, manufacturability limits and trying to move more objects by creating a sense of fashion towards changing what aesthetics and functions bring to the user's life.

Life as we know has different phases: birth, growth and death. Living organisms digest and keep up an ecosystem via death and the decay. Design, art and science follow a similar cycle, except that in design of everyday things, death of an object usually means the end of its participation in the ecosystem of life.

Today as an object faces death, they either face becoming landfill or being recycled. But most objects of the physical world today are more complicated, creating the question, what if there was another option? What if rebirth and reincarnation of objects, or them decaying and being utilized in a different lifecycle of another object was possible?

Examples of this approach has been evident in different communities. One of them being the "makers" around the world who like tinkering with products and objects by tinkering or just building their own to serve their own specific needs. Especially with the internet generation, information became very readily available and it became very easy to connect with peers interested in similar projects, inherently creating a subculture.

But the main example Samsara is based on is an approach taken by the Cubans when embargos made it literally impossible to fix and buy new parts of machinery needed in daily lives of people. The items built ranged from chargers for batteries of hearing aids to chairs made out of steel pipes and plywood. To support this revolution, there even was a book published by the Cuban military named "Con Nuestros Propios Esfuerzos" translating to "With Our Own Efforts"

"Worker, build your own machinery!": this was the appeal that Ernesto Guevara—Minister of Industries from 1961 to 1966—directed to the participants of the Primera Reunión Nacional de Producción [First National Production Meeting] in August 1961.

This event was the first ideological initiative of the national movement of Cuban innovators and inventors, who had begun organizing themselves.

in 1960 with the Comités de Piezas de Repuesto [Committees of Spare Parts]. – excerpt from the Archival project Technological Disobedience by Ernesto Oroza[x]

As seen from Cuba's story, humanity tends to learn fast when it is forced to adapt. The most recent example to this being the global pandemic which made societies adapt to remote working, internet assisted tools and revolutionized the way we treat office spaces for working by creating widespread adoption of remote/hybrid working environments.

This is where Samsara becomes our reality. Living in a finite world in an infinite consumption mindset is impossible to sustain. Eventually humankind will learn to adapt to limit usage/consumption and consider circularity in every aspect of life.

Samsara is a Pali/Sanskrit word meaning "wandering" and "world", while connotating "cyclicity of all life, matter and existence". Samsara aims to give you the control of things you touch, interact, need and/or want in your day-to-day life as a practice, before you have to learn to do it. The you mentioned in this book is any and all from all backgrounds.

Samsara is a cookbook. It is an analogy, a playful nature for humans to help reconsider the physical realm of objects around. It is a thoughtful practice on the practice of treating objects as living beings with their own narratives and evolutionary path. Samsara aims to give an option to the question of what happens to an object after their figurative "death".

2. FRAMEWORK

This cookbook aims to tie in ingredients from any foraged designs together via a formulated cooking method. As with every interaction in life, this framework also has two parties. Ingredients "grow" up by being designed and released into the wilderness and they participate in dishes by being collected.

Just like the ancient civilizations of hunter gatherers. The two parties involved in this framework are, the chef (forager) and the designer (mother nature).

Designs and their components provide the ingredients for recipes. And then it is up to the chef to cook (interface) these components together.

Recipes are set up based on the requested end flavors of a design (features) and filling those gaps with the fulfilling ingredients (components). As the chef gets more used to the foraging section of this framework, the preparation work decreases as foraging becomes a daily principle of looking into designs you might interact with on your daily life.

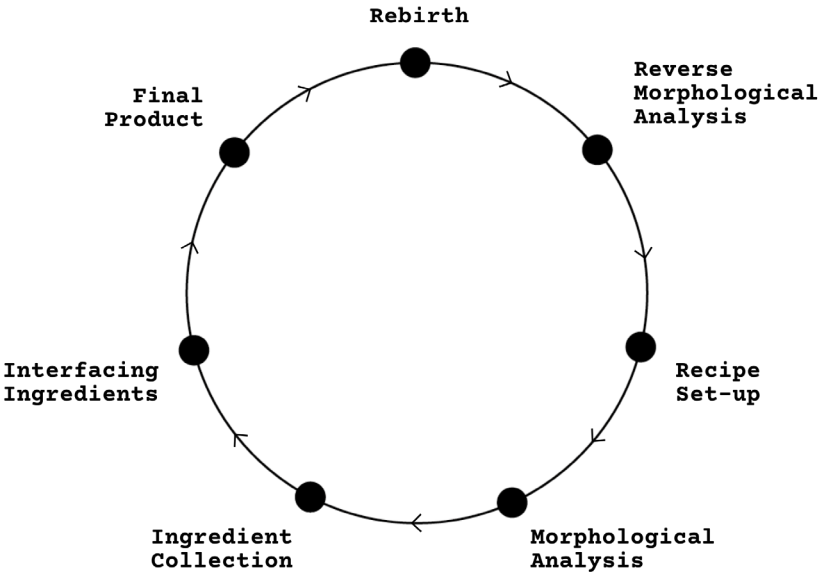
LIFECYCLE OF PHYSICAL THINGS
(AS OF TODAY)

BIRTH
when the item has initially been designed

GROWTH
perfect operation of the initial design for the relevant period

DEATH
when the initial assigned function is no longer needed/possible

LIFECYCLE PROPOSED BY SAMSARA FRAMEWORK



The following sub sections explain the main spirit of gathering materials and making them speak together by creating them into long lasting dishes for the future consumption of your biological daily needs. In mainstream designed objects, the picked dimensions are usually fused together, within the Samsara framework the links between the dimensions are mentioned as interfacing/cooking methods which will also be elaborated in their respective sections below.

Foraging the wilderness: Reverse Morphological Analysis

The main theory towards this foraging and interfacing method is based on the reversal of a method called morphological analysis [2] . Morphological analysis works by listing aims and goals as dimensions on one axis and then listing the possible solutions/design choices underneath each dimension. With morphological analysis, design is constructed by picking options from all dimensions of the matrix.

When this process is reversed to analyze already existing designs, objects and physical devices can be torn apart to be observed as pure material/ ingredients for recipes. From these analyzations of designs and their components, the ingredients needed for recipes as flavors, consistency and overall taste balance is customized and tied together according to the chef's preference of the recipe. below, there is an example of how two different chairs are classified with a reverse morphological analysis.

These descriptions to each dimension in a morphological analysis are classified as "suggestive features" extracted by zooming in on each component of a design separately. By reversing the morphological analysis process, each component, when taken out of their original context, becomes new ingredients.

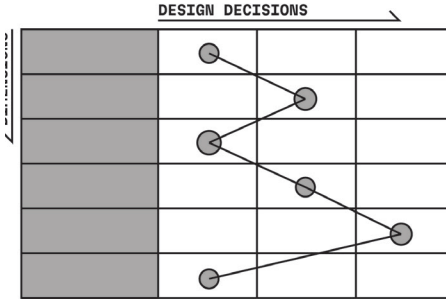


DIAGRAM OF MORPHOLOGICAL ANALYSIS MATRIX

DESIGN OPTIONS

DIMENSIONS		
Seat Material	Cushioned Fabric	Wood
Back Rest Material	Cushioned Cotton	Wood
Leg Count	2	4
Arm Rest Material	Wood	None
Arm Rest Shape	Curved	None
Leg Shape	Curved	Straight

CHAIR COMPARISONS BY MORPHOLOGICAL ANALYSIS

With this base level understanding of how reverse morphological analysis creates opportunities for components to live in places they were never intended to be deployed in, there is a need to cook these ingredients into harmony using different interfacing methods.

Cooking/Interfacing components

Raw ingredients can sometimes be appealing. They can also be health hazards involved with consumption of designs raw. By cooking these ingredients together, chefs can make new designs sterile and safe to consume.

In the art of cooking, different methods add different characteristics to meals. Stir frying, simmering, mashing for example can each bring different flavors to the same set of ingredients. This is the same in design. Imagine a Wassily chair, interfacing the sittable surfaces with flat straps mounted with tension.

Samsara recipes, while assembling the dishes suggests different cooking methods per recipe depending on the need and requirements of the dish. Below are some examples of the cooking methods that could be utilized for the recipes:

Knots – tying chicken legs, morphing shape, connecting ingredients

Knotting forms a variably complex method of interfacing different ingredients. A string with a simple flat knot can be used to temporarily bind ingredients together, such as chicken legs in cooking, or to help one mallable ingredient to hold shape; such as in a ‘roulade’. Knotting as a interface method affords accesible connecting or molding shape of ingredients with a low skill requirement. It is a non-destructive and easily reversible method. Zip ties are also considered as a self-sustaining knotting device.

Soldering – glazing

Soldering is a method in which two metallic ingredients can be connected by heating a third metal, often tin, and applying this to the connection point. It has a medium skill requirement, and therefor requires some practice. A specific tool is required, a soldering iron, and the connection can be undone using the same or a slightly more specific tool without destroying the initial ingredients. The method affords interfacing two ingredients in a seemingly seamless manner yet lacks some strength of connection.

3D Modeling – Morphing dimensions together.

By 3D-modeling attachments two ingredients can be interfaced without altering the ingredients or making any permanent changes. By creating a custom-fit interface between the ingredients virtually any objects can work together to create a system, or a dish. 3D-modeling does require a high skill set and expensive tools such as a 3D-printer, however the result allows for a large array of possibilities without any destructive results.

Gluing

Glue uses chemical compounds to bind different ingredients together. Different compounds have different qualities and uses cases; differing in strength of connections, working time and most effective surface material. This interfacing method affords quick, non-destructive binding of ingredients with a low-skill required.

Drilling/Screwing

Drilling screws into ingredients as an interfacing method compares to sticking a shish through meat to create a shish kebab. It forms a connection, interfaces, the different ingredients and binds them together in a fast and easily reversible way. However, the ingredients are left damaged with a hole. Drilling affords fast and strong connections, while having a low skill requirement.

Cutting

Cutting divides ingredients, resizes them and forms a first step to make towards the desired result. The same goes for cutting as an interfacing method, it creates a definitive adjustment to an ingredient to shape it to the ‘cook’s’ desire. The cuts can be made using a variety of tools depending on the materials, such as knives or saws, and can be reversed using other interfacing methods such as gluing. Cutting affords a simple and fast way of changing an ingredient to a desired state, therefore having a low skill requirement. Some risks persist, such as cutting yourself, but can be avoided by careful handling of tools.

Welding

Welding forms an interfacing method to join two materials together using either heat or pressure. This interfacing method is most frequently applied to metals or thermoplastics and requires an advanced skillset that comes with a certain level of risk. The interfacing method has a similar affordance as soldering, however, creates a stronger bond but is more permanent and requires more skill, and has a higher risk factor.

RECORD YOUR OWN INTERFACE METHODS BELOW.

A kitchen is a place of many possibilities within the realm of one's imagination. Feel free to note down your interfacing methods in these blank sections with your relevant descriptions. Each culture of kitchen brings their own methods of experience-based cooking.

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Recipe Setup

There are two main ways to set up recipes. One of them is seasoning a main dish by repairing/improving it and the other is producing a fresh recipe out of raw ingredients foraged from the wilderness.

Seasoning/Sauce making

This method is mainly revolving around a main ingredient or set of ingredients to amplify the taste and resourcefulness of a design by creating a thick flavorful sauce with seasoning. The main dish that this sauce is added on top of could have been a dish on its own but is just not complete or there is a problem with it, keeping it from being completed. Repairing or replacing parts from existing designs with foraged factors could help complete the dish.

In these recipes, most of the dimensions/suggestive features in the morphological analysis chart is already full and there is only needed to add new dimensions or replace the old dimension that was deemed broken or inadequate with a foraged ingredient to complete the matrix determined by the chef.
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Full Dish

These dishes are more imaginative to create a flavor bespoke to the chef's palette and sometimes even to their specific plate. These recipes are curated by initially picking all the dimensions in need and then filling them with the ingredients at hand. For ease of setup of full dishes especially, knowing the possibility of available ingredients in one's fridge or even living room or that weird box of stuff underneath your bed helps narrow down the overwhelming options.

In these recipes, since the aim could be to build a bespoke solution to one's specific needs, the dimensions should be pre-determined before with a normal morphological analysis, then followed by the ingredients that one has available, which have dimensions attached that they can fulfil.
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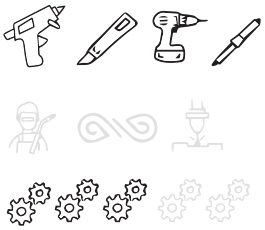
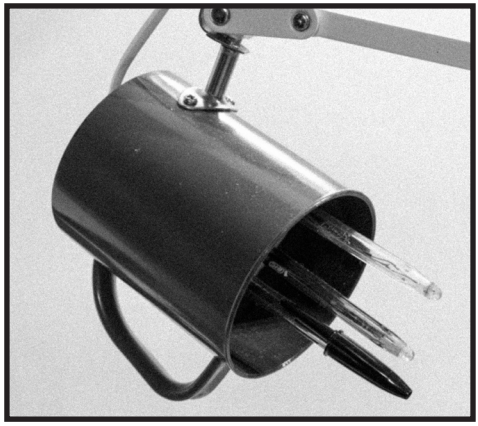
For interfacing, it is also handy to have certain extra tools around, while these are not mandatory, measuring devices such as calipers or tape measures might come in handy for your recipes. Note these down in your recipes where relevant to make sure the next time you cook, you do not forget.

Within the nature of the Samsara framework, all the ingredients listed are suggestions with the initial setup of the recipe, but the chefs have all the freedom to pick and choose their own flavors of ingredients that would fulfil the dimensions need to their likings.

3. RECIPES





Hold my Cup Lamp [Sauced with a Mug]

Lamps are an essential everyday dish which can be consumed at many different times of the day. A lamp can have many dimensions as demonstrated in the table below. In this recipe, we cook a lamp from its remainders, as the old lightbulbs cannot be found anymore, while adding it a surprize new function by the handy utilization of a mug. The attached mug also provides a grab handle to readjust the positioning of the lamp.

MAKE SURE that the LED Light source picked, and the Power supply picked have similar voltage levels stated within their limits to avoid any health hazards.

Optional Specialty tools:
- Multi meter

Necessary Spices:
- Electrical tape (or heat shrink tubing)

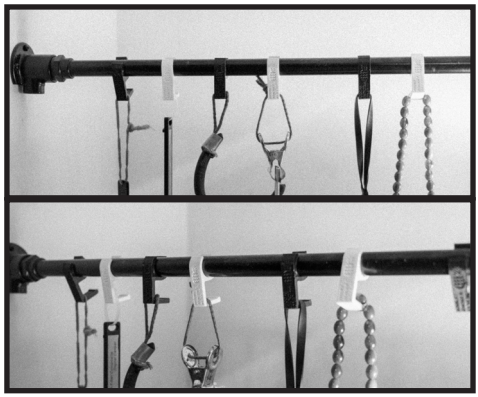
INGREDIENT OPTIONS →

↓ DIMENSIONS	SUGGESTED INGREDIENTS BY RECIPE		
Arm	Broken Lamp		
Surface Mount	Broken Lamp		
Light Container	MUG		
Light Source	DC LED Light		
Power Source	Phone Charger		
Power Switch	Broken Lamp		

Steps

1. Lay your ingredients before you and arrange everything needed
2. Drill two holes on the side for the fasteners of the new lampshade foraged. In this recipe we will be utilizing a MUG.
3. Drill a new hole on the bottom of the MUG to pass through the cables of the original lamp. Since we will also be converting this lamp to utilize an LED light, this step also means that we are removing the old AC powered bulb holder.
4. We will be reutilizing the original cable of the lamp to retain the functionality of the switch, so route the original cable into the MUG.
5. Screw the MUG onto the hinge of the Arm by the holds on the side.
6. Solder the LED's negative and positive terminals to the original power cable's terminals.
7. Cut the Power cable's plug end off to reveal the cables.
8. Since LED's are low powered, we will be utilizing an old phone charger. Cut the phone chargers tip off to reveal the RED and BLACK cables.
9. With the phone charger connected to the wall, touch the two cables of the charger to the two exposed cables on the lamp's original cable to make sure that the orientation of the cables is correct. (You may use the continuity mode on a multi meter to skip this step in a slightly safer manner)
10. Once the correct orientation is found, solder the cables to the corresponding positive and negative terminals.
11. Tape off any exposed copper parts on the cables.
12. Install lamp on the desired surface with the original mounting method.
13. Your Lamp is ready to eat

3. RECIPES



Tool wall [Full Dish]

Essential tools are handy to have within an arm's reach. In this dish we aim to bring all of the favourite tools you have around you literally within an arm's reach from your work surface. In this recipe we will be cooking a piping system that your tools can hang from using bespoke 3D modelled hooks for your specific piping.

Optional Specialty tools:
- Caliper

Necessary Spices:
- NA

INGREDIENT OPTIONS

DIMENSIONS	SUGGESTED INGREDIENTS BY RECIPE		
Body	Metal Piping		
Wall Mount	Piping Adapter		
Body Connections	90 Degree Pipe		
Wall Fasteners	Screws		
Tool Extensions	Rope		
Tool Mounts	3D Designs		

Steps

1. Lay your ingredients before you to arrange everything needed
2. Cut the piping according to the height you want the piping to be off from your workspace. We will be utilizing an ARMS LENGTH as a unit.
3. Screw your wall mount for piping onto the table OR the wall to your liking
4. Attach your desired length of pipe to the wall mount. If Desired, attach the other end of the pipe to the ceiling OR the table with another 90 Degree adapter.
5. Measure your pipings diameter for the 3D Model. If using off the shelf parts or any other method, SKIP this step.
6. Prepare your tools for installation on the PIPE by connecting a rope loop around them. IF they have holes, thread them through, IF NOT, Tape or Glue the ropes to the handle of your desired tools.
7. Attach the HOOKS on the pipe. The HOOKS will be staying on the pipe, while retaining the option to add/remove in the future.
8. Place your tools on the pipe
9. Your dish is ready to serve.

3. RECIPES

World Record Rack [Full Dish]

Vintage lovers and hipsters alike, just like the music in them, records are an interesting aesthetic to them, for ease of locating your favourite tunes in the sea of Flavors, just like a cheese plate, we will be assembling a record rack.

Optional Specialty tools:
- Water Level

Necessary Spices:
- Measuring Tape
- Pencil

INGREDIENT OPTIONS →

↓ DIMENSIONS	SUGGESTED INGREDIENTS BY RECIPE		
External Rack Mount	Screws OR Hooks		
Capacity	3-4 Records		
Load Securing	Horizontal Lip		
Body	Wood Strips		
Horizontal Support	Thin Strips of of Wood		
Internal Rack Mount	Wood Glue OR Screws		
Internal Vertical H	35-40 CM		
Horizontal Distance	33-35CM		

Steps

1. Lay your ingredients before you to arrange everything needed
2. Multiply the Internal Unit Vertical Distance by the Capacity to reach the overall length of your MAIN vertical body part dimensions.
3. Measure the size of MAIN vertical body part on your WOOD and cut two thin pieces.
4. Measure your Horizontal distance on your WOOD
5. Cut YOUR CAPACITY times narrow parts and YOUR CAPACITY times wider parts to serve as your lip
6. Glue together 1x of the Narrow Horizontal Distance Parts to 1x of your Wide Horizontal Distance Part to create an L shape that will support your record. Repeat until you run out of Horizontal Distance Parts
7. Mark your Internal unit vertical distance on your MAIN vertical body part as many times as your CAPACITY.
8. ATTACH your L shaped record support parts to both MAIN vertical Body parts on the points you marked at step 7 either by SCREWING or GLUING.
9. HOOK or SCREW or ATTACH FEET on your rack to place it on SURFACE.
10. Your dish is ready to serve.

4. PLACE YOUR RECIPES HERE

Optional Specialty tools:
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Necessary Spices:
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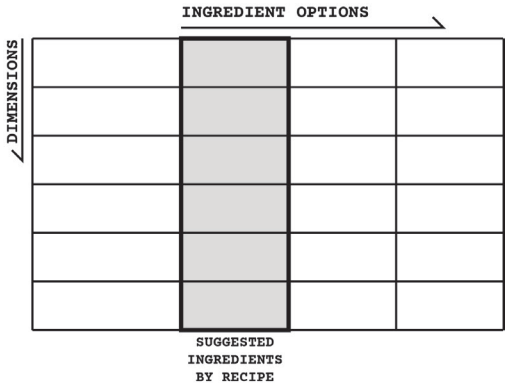

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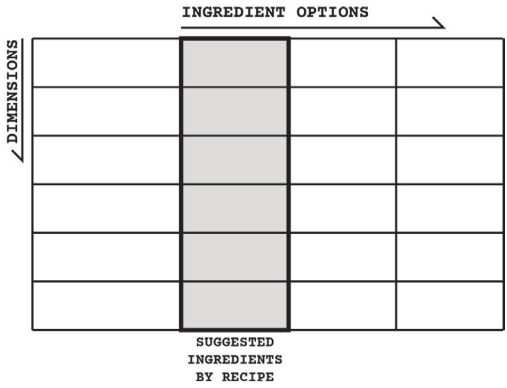

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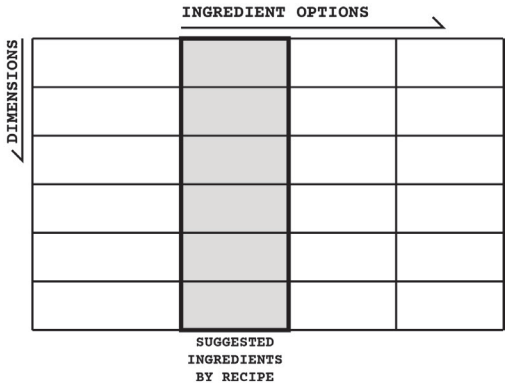

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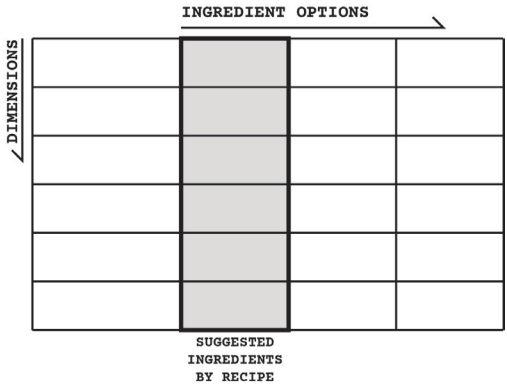

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