

1975

EC75-2037 Kitchen Planning

Mary Dale Christensen

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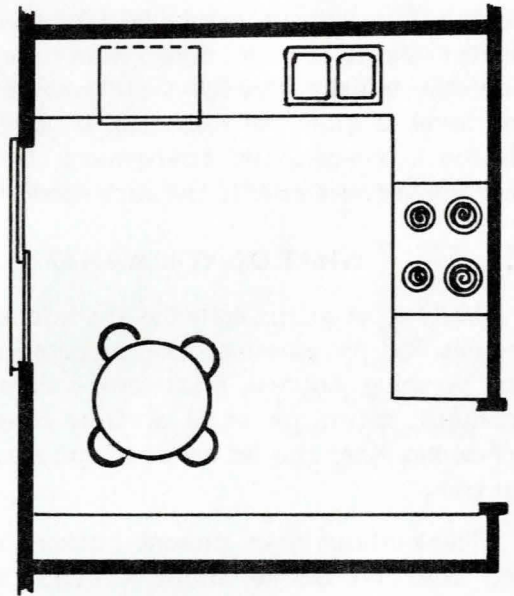
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KITCHEN PLANNING



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KITCHEN PLANNING

An efficient, well planned kitchen is the dream of many homemakers. The time and activities either carried out in the kitchen or directed from there justify careful planning of an efficient work area, whether you are building new or remodeling.

What is a well planned kitchen? It will vary according to the family's size, activities, ages, habits, income, goals and physical stature, abilities and disabilities of family members and facilities already existing. A well planned kitchen does not necessarily mean an expensive, elaborate, hand-crafted showplace. It *does* mean one that is carefully thought through with consideration to the family's goals and resources. A good kitchen will be a one-of-a-kind arrangement, because no two families have exactly the same needs.

WHAT DO YOU WANT?

Make a list of the activities the kitchen should provide for, for example—food preparation, clean-up, planning, hobbies, plant care, children's play, breakfast, eating for small or large groups, farm office, etc. Keep this list handy as you are planning the area.

Think about your present kitchen. What do you like and dislike about it? Look at other kitchens. Would they work for you? Ask friends and relatives what they like about their kitchens. Remember, however, that this kitchen must suit *you*—not your mother, sister or Aunt Susie.

LOCATION IN THE HOME

The kitchen is the hub of the home's activities. As such, it should be conveniently located in relation to other activity areas. It should have direct access to the following areas:

1. Eating areas (wherever meals and snacks are eaten)
 - breakfast and snack area (so these meals are quick and easy)
 - family meals (so most meals are in a convenient space)
 - meals with guests (so this area will be used and not be "for show")

- outdoor meals (so you can conveniently enjoy nature)
 - TV and snacks (so spills are lessened and clean-up is shortened)
2. Entrances
 - garage entrance (so you do not have to carry groceries far)
 - play and service yard entrance (so back yard or farm yard traffic can come directly into the service area of the home, which includes the kitchen)
 3. Outdoor living and play areas
 - patio living area
 - dining area
 - play area (so you can control and take part in outdoor activities from your work area)
 4. Outdoor work and traffic area
 - farm traffic (so you can see the coming and going of traffic)

WORK CENTERS

The prime requirement for a good kitchen is well designed work centers.

All kitchens should have a **sink** center, a **mix** center, a **range** center and a **refrigerator** center. You might also have a separate **wall oven** center, a **planning** center, and others such as centers for snacks, family meals, bulk storage, etc.

Sink Center

This is the busiest center in the kitchen, particularly while preparing meals. It is most conveniently placed in the center of the kitchen arrangement. Even with the addition of a dishwasher, much time is spent here. Washing dishes is only one of its functions. Preparing vegetables and fruits, draining and soaking items, getting water, etc., all require use of the sink area. This is a logical spot for a cutting board, refrigerator containers, towels and dishes. Do not plan to use the space beneath the sink for much built-in storage since free access to the drain is needed. A dishwasher could be placed on either side of the sink.

Mixing Center

The mixing center is another busy center where you do most of your food preparation. Store mixing utensils, staples, supplies, mixes, some small appliances, and some canned goods here. Often you find two mix centers in the kitchen—a large one between the refrigerator and the sink and a smaller one adjacent to the range. Such a split center would divide the activities, storage, and counter work space and also provide space for two workers in the kitchen at one time. The total amount of space should be within the recommended dimensions given later. Include good storage space and sufficient electrical outlets.

Range Center

The range center can supply counter and storage space for two separate operations—food preparation and food serving. It is best to have one operation on each side so as not to confuse the activities and storage. If, as previously mentioned, this center is to contain part of the mixing center it would be a logical point for storage of some items that would go directly onto the range, e.g.: cooking oil, rice and macaroni. Saucepan hot mitts and cooking tools are other items that this center might store.

The serving part of the range center should provide a counter (part of it heat proof) and storage for serving dishes. You will make frequent trips between the range and the sink, so these two centers should be placed close together if possible.

Refrigerator Center

Some counter space should be provided next to the latch side of the refrigerator. You will use this surface when arranging items in the refrigerator, pouring refrigerated liquids and even fixing cold sandwiches. If you have a side-by-side refrigerator the counter could be on either side. A cabinet next to the refrigerator is a good storage spot for glasses and pitchers.

Wall Oven Center

When a separate wall oven is included, a counter must also be provided here. The space is necessary for you to put down items while you open the oven door and to place food from the oven. A heat-proof counter top is desirable. The oven center is often placed outside the main work area since it is not used as frequently as the others.

The wall ovens are at a convenient height and have extra space below the surface unit that can be used for storage. However, these advantages must be weighed against the loss of at least two feet of counter space.

Planning Center

A small desk, a telephone, bookshelf, note pads and chair can add convenience to your kitchen and time to your schedule. If a desk is not possible, a corner of a cabinet, a shelf or a bulletin board would help.

Other Centers

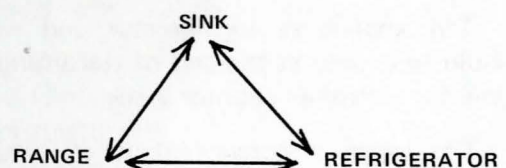
A bulk storage area, dish storage area, and eating area are other centers that you might consider. These centers are not used as frequently and therefore (depending upon space available) can be placed in less convenient areas and still be accessible to the kitchen work area.

Standard Counter Space Dimensions For Centers

Mixing36" - 48"
Sink	stacking side 24" - 36"
.	drying side 18" - 30"
Refrigerator	latch side 15" - 18"
Range	preparation 15" - 24"
Range	serving (at least part heat-proof) 15" - 24"
Wall oven15" - 18"

WORK TRIANGLE

The walking space between the three major appliances in the centers is called the work triangle. This is an imaginary line drawn from one appliance to the other to determine the walking distance from one point to the other. (This should be *walking distance*, which may not be a straight line. For example, you may have to walk around a table to get from the range to the refrigerator.)



The total of these three sides should be:

15' – 22' is desirable

12' – 26' is reasonable

The length of the work triangle is one good way of judging the convenience and size of a kitchen. A kitchen that is too big can be just as much of a problem as one that is too small. Bring the centers close together to get a good work triangle.

The work triangle also defines the work area. Avoid placing doorways in this area that would create a pathway for family traffic. Besides working around people, you would have to stretch the work triangle at least three feet to accommodate the door.

PLACING THE CENTERS

Where do you put these centers?

The **sink** should be in the center of any arrangement since more trips are made to it than to any other center.

The **sink** and **range** centers should be placed adjacent to each other since many trips are made between these centers.

The **sink** and **mixing** centers should be close together when possible.

It is more important for the **mixing** center, **sink** center and **refrigerator** to be close together than for the refrigerator, mix and range center to be close.

The latch side of the **refrigerator** should be adjacent to the counter. This one factor can dictate which way a kitchen is arranged when an existing appliance is to be used. It is important.

The **refrigerator** is often thought convenient when placed close to the dining area. This makes it easy to put items on the table directly from the refrigerator. The refrigerator is also convenient for bringing in groceries when placed close to the outside entrance.

Tall appliances (refrigerator and wall oven) should be placed at the end of the arrangement to allow for unbroken counter space.

The **range** is convenient when close to the dining area for serving. The possibility of venting a range hood should also be considered when locating this center.

Dish storage is most convenient when adjacent to both the dining area and the sink or dishwasher.

KITCHEN LAYOUT ARRANGEMENTS

There are several standard kitchen layouts—"U" and "L" shapes, two-wall and one-wall. Each has advantages and disadvantages.

Layouts with right angles provide "wrap-around" work space. The work triangle is shortened by each right angle. The right angles also help enclose and protect the work area from family traffic. Deep base corners which result can be difficult to use for storage, however. Careful planning of these corners can eliminate problems.

It is important to allow sufficient space between work counters when arranging kitchen layouts with two right angles. Six to eight feet should be allowed between the arms of a "U" shape arrangement.

The open space of the "L" shape arrangement could provide an eating area.

A **two-wall layout** can be convenient if it is not divided by an important doorway at one end. If there is no family traffic through the work area, this layout has many of the advantages of the right angle arrangements without the disadvantages of the deep base corner storage.

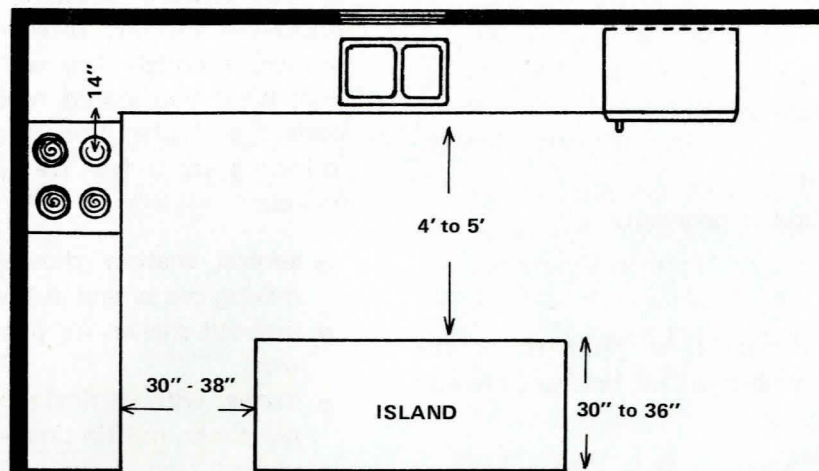
A **one-wall layout** is good for a small kitchen. For larger kitchens the absence of a right angle will provide a large work triangle. The addition of a facing work counter (similar to a two-wall layout) can help reduce walking distance between appliances.

LAYOUT FEATURES

Island

The island is currently a popular feature in the kitchen. It can provide good additional work surface and also cut down traffic and provide a visual barrier for the work triangle.

The major difficulty in putting in an island is the amount of space it requires. A good work surface that does not have a back (such as a wall) is better if it is 30" to 36" deep instead of the standard 24" counter depth. Circulation space around it must also be counted. Therefore, the following dimensions are desirable.



Peninsula

A peninsula is a counter attached to a wall at one end that extends into the room. This counter is best built somewhat deeper than the standard 24" counter since it does not have the backing of a wall. A depth of 30" to 36" is sufficient, such as with the island.

DIMENSIONS TO WATCH FOR

Appliances

It is best to purchase appliances after the kitchen is planned and you know what style and size will be the most convenient. Often, however, you must plan around existing appliances. Know the dimensions of the appliances you will probably be using. Measure yours or use the following common widths when you plan.

Range—30", 40"

Cook top—24", 30", 36", 40"

Wall oven—24", 30"

Refrigerator—30", 33", 36", 42" (larger would be for side-by-side models.)

Sink—24", 30", 36" (variety of widths and arrangements available)

Dishwasher—24"

Trashmasher—15", 18"

Circulation Space

It is easy to measure the space an appliance needs; it is not so easy to measure the space people need. Here are a few suggestions:

4'—5' between facing counters

30"—38" between end of one counter and front of another.

2' to move between two objects

Space needed between appliances and the inside corners of an "L" or "U" arrangement can easily be forgotten or lost in the confusion. It is important to provide space for working in front of an appliance. Check the following:

9"—15" between edge of sink and inside corner

3" between side of dishwasher and inside corner.

14" between center of range burner or unit and inside corner.

16" between side of refrigerator and inside corner.

It is hard to determine just how much is enough, especially when it comes to counter and storage space. The following suggestions will provide a guide. However, organization and good use of space can overcome many poor design features and lack of space.

Cabinet Frontage

Base cabinets:

minimum—6 ft.

medium—8 ft.

liberal—10 ft.

(Do not count corners under the sink, or any appliance. These are not easily used storage areas. Do count under a separate range surface unit and add 6" for a large (36" diameter) lazy susan)

Wall cabinets:

minimum—6 ft.

medium—8 ft.

liberal—10 ft.

(Do not count space over a built-in oven, range, a refrigerator, a sink or any corner cabinets. These are not readily accessible areas)

Cabinet Depths

Base cabinets:

24" standard

30"—36" island or peninsula

Wall cabinets:

12" standard

18" over island or peninsula

Cabinet Heights

Base cabinets:

Ideally cabinets would be built to fit the person using it. To determine the best work height for yours:

Measure your elbow height. Wear normal height of heel. Keeping your arm at your side, bend the elbow and measure from the bottom of the elbow to the floor.

Subtract 2-3" from elbow height for your standard counter height.

Subtract 7-8" from elbow height to get height for a section of the mixing center (lower height is needed to avoid back and shoulder strain and fatigue when hand mixing, kneading or rolling).

Cabinets that are purchased generally will be 36" high. Some manufacturers will have lower cabinets for the mixing area. If these must be custom built there will be extra expense involved. If you cannot lower a section be sure to include sturdy pull-out boards at convenient heights and places.

Wall cabinets:

Standard cabinet: 30" high

Space between base and wall cabinets: 15" - 18" standard

27" - 30" above island and peninsulas. (So you can see under the wall cabinets)

Cabinet widths

Wall and base cabinets are usually built in 3" modularity. In other words, a unit may be 12", 15", 18", 21", 24" and so forth. An odd measurement may be much more expensive in ready made cabinets. If your space is not standard, you may block in an inch or two so you can use standard cabinets.

CABINET DESIGN

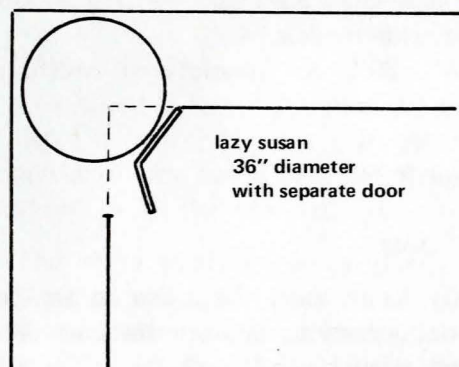
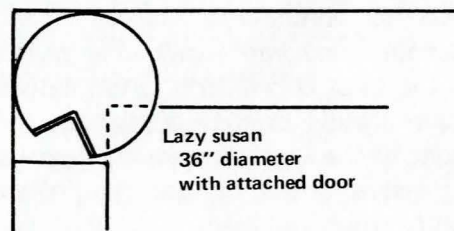
Base Cabinet

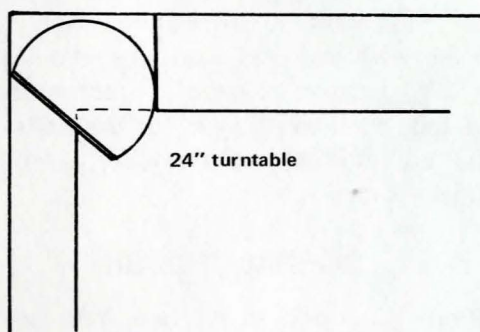
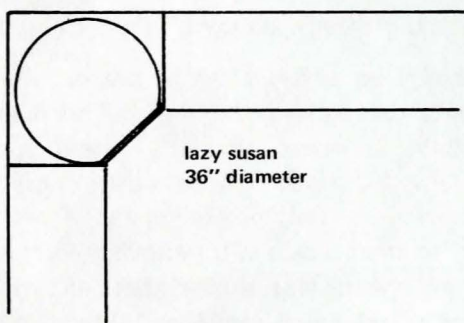
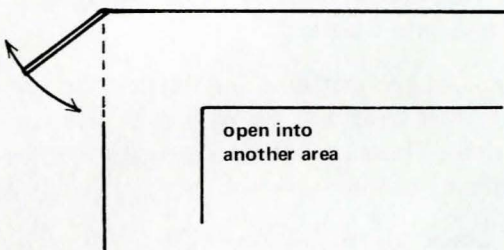
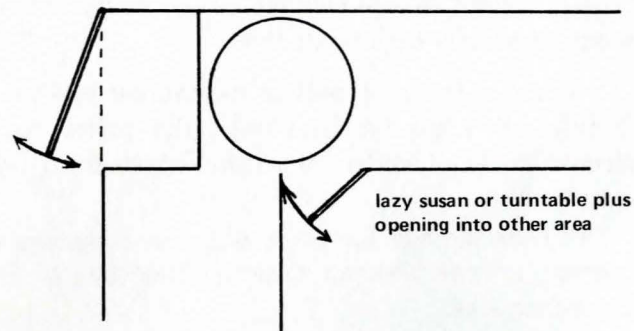
The standard base cabinet has one drawer, one shelf and the base flooring. In most places this is

far from ideal. Drawers, pullout shelving, and adjustable shelving offer much more convenient storage, although they will often cost more. Consider what you would need to use in each of the centers and plan your storage accordingly. The following are a few features you might want to include:

- several shallow drawers for utensils at the mixing center and at the range.
- pull-out shelves for pans under a range surface unit.
- drawer with vertical storage for cake pans, lids, pie plates, muffin tins, etc.
- vertical storage for cookie sheets in the mixing center.
- vertical storage for platters and trays in the serving center.
- metal bins in deep drawers for flour, sugar and bread.

The corner in a base cabinet that is difficult to get to and use is often called a dead corner. When you are building or remodeling you can do several things to avoid this wasted space. Following are some ideas for making use of this potentially good storage space.





Wall cabinets

The standard wall cabinet will have two shelves and a base. These shelves should be adjustable so that you can arrange spaces to fit your needs. Other features you might include:

- vertical shelving on the top shelf for baking pans, lids, etc.
- hanging storage and racks on cabinet doors
- lazy susans or turntables in the corners
- half shelves for small dishes

Mid-way storage

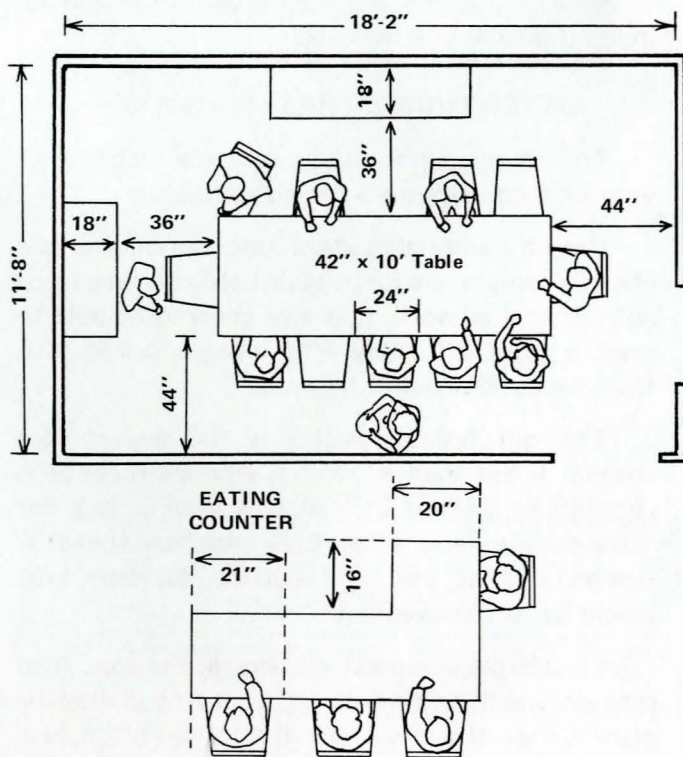
The space between the base and the wall cabinet is the mid-way space, and this can be used successfully for storage. Some ideas for you to consider are listed below:

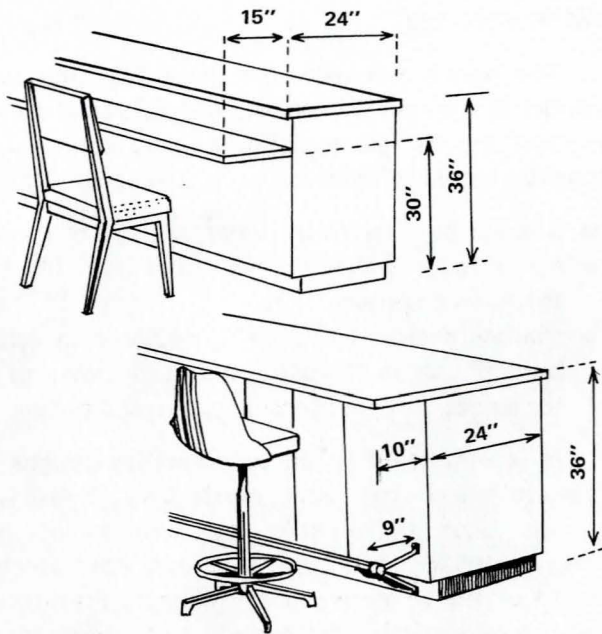
- built-in bins for flour, sugar, and other staples
- concealed storage for the mixer and blender (often in a corner)
- shallow shelves (3" to 4"), enclosed or open, built 6" above the base cabinet (or down to it) for spices, mixing utensils, cleaning supplies

It is important in all base cabinet designs to keep in mind that your needs very likely will change. Sizes of utensils and supplies do not remain constant over the years and your storage must be able to adjust to any changes that occur. For this reason it is often wise to be cautious about elaborate built-in features. Much can be done to basic cabinet design by using accessories either purchased or built at home.

DINING AREAS

Generally all too little attention is paid to the space and arrangement of the dining area. Be sure that you know what space is needed for your family and friends and the furnishing you will be using. The following diagrams provide guides for the size of a dining area.





Eating counters in kitchens are popular. In order to be functional, several points must be considered.

Eating space for one person is 21" wide and 20" deep.

An "L"-shaped counter with one person sitting on the end requires 16" from the inside corner or 36" from the outside corner for the turn.

"L" or "U" - shaped counters encourage conversation more than a straight line.

Counter heights and knee space differ according to the chair or stool used.

LITTLE THINGS THAT MEAN A LOT

Try to put some extras into the planning of your kitchen. Here are a few to start with:

Have a *handy* step stool that can double as a chair. When you are just a little tired it is nice to be able to sit and work. It is also good to be able to reach a top shelf safely. Plan a place to keep this stool handy, but out of the way.

The old fashion pantry is the newest idea around. It has changed from a separate room with counters to a closet with shallow shelf storage for canned goods and other bulk purchase items. A feature such as this right outside the work area would be very convenient.

Include good general lighting for the area. Also provide good additional light at the following places: over the sink, over the range (often in a

hood), under the wall cabinets at any long counter space, especially the mixing area.

Provide plenty of outlets for counter top use. Decide where you will be using the coffee pot, electric skillet, blender, mixer and other electrical appliances.

Provide storage for extra dishes and glassware out of the work area but close to either the sink or the dining area.

Provide attractive easy-to-clean surfaces on walls, counters, and floors.

Select colors and patterns for the counter tops and flooring that you will be willing to live with for a long time. These are rather expensive features to change often.

Plan a place for those essential but not-too-glamorous items such as the wastebasket, wet towels and dishrags, sponges, mop and broom.

Include an exhaust fan to prevent odors from spreading throughout the house. This is especially important in areas that are open, such as a kitchen-family room. The exhaust may be either a hood fan or a wall or ceiling fan. Fans that are ducted to the outside will remove grease, moisture, odor and heat. Non-ducted fans are limited to removal of odor and moisture that can be filtered out of the air.

A kitchen needs to be attractive as well as efficient to make it a pleasant place to work. Flooring, walls and appliances should coordinate in color and pattern. Personal touches should be added too, such as pictures for the walls, hanging plants, a bulletin board, clock, calendar, and curtains or shutters.

A FINAL THOUGHT

There is *no* perfect kitchen. You will have to decide which of several features would be the most important for your family. Choices also must be made as to how much money should be allocated to this kitchen area.

Give plenty of creative thought to the solution of your particular problem area. And leave some room for change and improvement as you learn to live and work in your new or improved kitchen.

Prepared by Mary Dale Christensen, former Extension Specialist (Housing).