

Mellon Diamond

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1 General Principles

The Recursive Diamond is a precision-like system, featuring light limited openings, weak notrumps, and an artificial forcing bid ($1\heartsuit$). In contrast to precision and many other systems, the focus is on accurate game and partscore bidding rather than finding slams. We tend to enter the auction aggressively on distributional hands and our methods emphasize exploring for the best fit rather than setting up an early game force. Our defensive bidding methods similarly emphasize finding our best fit, showing many types of two-suited hands as quickly as possible.

The opening structure of recursive diamond is as follows:

$2NT$		at least 5-5 in the minors, weak (typically 7-10 hcp)
$2\heartsuit \spadesuit$		weak two
$2\clubsuit \diamond$		intermediate, rule of 20 opener, 6+ cards in bid suit
$1NT$		10-12 if 1st/2nd NV, else 12-14, can include 5-card major
$1\heartsuit \spadesuit$		5 card major, rule of 18 opener, not 5332 shape
$1\diamond$		any 16+ hcp; 17+ if balanced and not 1st/2nd seat NV
$1\clubsuit$		11-16 hcp, balanced or three suiter or minors

Bids of $3\clubsuit$ and above are standard preempts. We frequently preempt three of a minor on reasonable six-card suits, but other three-level preempts are almost always seven.

2 Major Suit Openings

Major suit openings at the one level promise five cards in the bid suit. We will treat any 5332 hand with a five card major as balanced, and open in the corresponding notrump range ($1NT$ or $1\clubsuit$ or $1\diamond$). It follows that the major suit openers always promise either a six card major or a four card (or longer) second suit. The point range for this bid is based on the rule of 18. The total number of high card points plus the length of the two longest suits should be at least 18, and no more than 24 (otherwise we would open $1\diamond$). Queens and jacks in short suits tend not to be counted here (so we could pass some rule of

18 openers if the values are in short suits, or downgrade some $1\spadesuit$ openers to one of a major). The typical point range for major suit openers is 9-15 hcp, but we could open lighter with extreme distribution. Keep in mind that balanced hands with five card majors may pass even holding 9-11 points. Hands with six card majors and minimum values (9 to a bad 11 points) also qualify to open with a weak two bid, and we will normally prefer the weak two opening unless holding a second four-card or longer suit.

2.1 Semi-Forcing Notrump Response

Over the $1\spadesuit$ opening we play a notrump which usually has a range of 8-12 and does not promise a balanced hand. Note that opener will always have a natural rebid available (he will never rebid in a three-card suit). Occasionally we will make a forcing notrump response with less than 8 points holding a misfit for opener's first bid suit. After the forcing notrump, responder's bid of a new suit is natural and shows 8-11 points (with less we'd pass or make a weak jump shift). Rebidding opener's suit at the lowest level is typically a doubleton with 8-10 points (with less we'd tend to pass the opening).

Opener may choose to jump after the 1NT response. This shows a very distributional hand, typically six cards in the original major and five in the second suit. The jump is not forcing but it does show near-maximum values, at least a standard opener with 6-5 shape. Typically these hands have 4-5 losers and we will bid game if a fit exists. A jump in opener's suit promises seven cards, not 7222 shape, and also promises a non-minimum by inference. In general, if opener rebids his first suit this promises a "real" opening hand (at least a good 11 points) because of the failure to open with a weak two (or three) bid.

If opener starts with $1\heartsuit$, then the $1\spadesuit$ response takes the place of the forcing notrump. This shows zero to four spades, usually 8-12 points, and creates a one-round force. Opener rebids naturally, except that a 1NT continuation shows four *spades*. Subsequent bidding mirrors the sequences after a forcing notrump. If opener bids $2\spadesuit$ over the $1\spadesuit$ response, this is similar to a jump shift and shows five or more spades, six or more hearts.

2.2 $1\heartsuit$ -1NT

The one notrump bid over $1\heartsuit$ is not the forcing notrump (since $1\spadesuit$ takes the place of this bid). The $1\heartsuit$ -1NT action shows five or more spades. This is forcing one round (unless responder is a passed hand) and opener rebids naturally ($2\spadesuit$ bid shows three plus). The range is usually 8+ hcp and could be even lighter. If responder wants to set up a game force, he must bid the fourth suit (forcing to game). Game tries are available in the auction $1\heartsuit$ -1NT- $2\spadesuit$ (we use our normal two-way game tries).

The method outlined above ($1\spadesuit$ as forcing notrump, 1NT showing spades) is not allowed in ACBL general chart events. If playing in an event where the mid-chart is not permitted, we will play $1\spadesuit$ as natural (four plus) and 1NT as the forcing notrump. If opener has five hearts and four spades, he will have

to rebid the heart suit after the forcing notrump (the style of our system is such that bidding a two or three card minor is highly undesirable). This also means that hands with five hearts and four spades and less than a standard american opener will tend to pass in general chart events (as rebidding $2\heartsuit$ after the forcing notrump would guarantee full values).

2.3 Two-Over-One

Two-over-one responses in a new suit show 12 or more hcp and at least four cards in the bid suit, but this is *not* forcing to game since opener could potentially be light. Opener continues by making a natural call; rebidding his major promises six. If opener's natural call is at the three level and he has less than 12 hcp, he can make an artificial call of 2NT (note a balanced hand is not possible for opener). After a two-over-one bid, the auction is forced to at least the level of two of opener's original major. The following actions by opener set up a game force:

- Rebidding two of his first suit, which shows a good hand by inference
- Raising responder's suit to the three level
- Bidding a new suit naturally at the three level (except $3\clubsuit$ over $2\heartsuit$)
- Jumping in a new suit (splinter supporting responder)

The following actions by responder set up a game force:

- Rebidding opener's first suit at the three level
- Raising opener's second suit to the three level
- Bidding the fourth suit
- Jumping in a new suit (splinter supporting opener's second suit)
- Bidding a new suit other than $3\clubsuit$ over opener's 2NT

The following are ways a 2/1 auction could potentially stop below game:

- Responder rebids two of opener's first suit (doubleton, 12-14 hcp, NF)
- Responder rebids 2NT (13-14 points, invitational, NF)
- Opener rebids 2NT (minimum, 2nd suit at 3-level, NF)
- Responder bids $3\clubsuit$ over opener's 2NT rebid (pass/correct)
- Responder rebids his first suit in a non-GF sequence
- Opener bids $3\clubsuit$ over $2\heartsuit$, and responder bids $3\heartsuit$

We play a few additional conventional treatments that should be mentioned. After a major suit opener and $2\heartsuit$ response, if opener has a poor hand with a fit for diamonds, he should not bid $3\heartsuit$ (which is forcing). Bidding 2NT here is undesirable since partner will assume opener has clubs and may pass. Instead we use $3\clubsuit$ as a two-way bid. This shows either a full opening hand with a club suit or a bad opener with a diamond fit. Responder bids $3\heartsuit$ on any hand unwilling to force game opposite a possible 9-count with a fit for diamonds, at which point opener passes with the bad hand with diamonds and bids on with the club suit (typically bidding the fourth suit or 3NT depending on stoppers). If responder wants to force game no matter what, he bids anything past $3\heartsuit$ (basically natural). If responder bids $2\clubsuit$ over the major suit opening, we use 2NT to show a bad raise of clubs.

After the auction $1\spadesuit-2\heartsuit-2NT$, it is not clear what opener's minor is. Of course responder can make a variety of nonforcing bids (pass, $3\clubsuit$, $3\heartsuit$) but sometimes he wants to bid game and needs to know opener's minor. The $3\heartsuit$ call is forcing and requests opener's minor. Opener bids $3\heartsuit$ if he has clubs and $3\spadesuit$ if he has diamonds.

If a major suit is agreed (for example $1\spadesuit-2\heartsuit-3\heartsuit$) then we are always forced to game, based on losing trick count. At this point we play serious/nonserious slam tries as described in the section on slam bidding.

2.4 Raises

There are a number of ways to raise opener's major. A single raise is much as in standard american bidding, promising about 6-10 points and 8-9 losers. On occasion a nine-loser eleven-count will make a single raise. We make single raises with three or four card support. After a single raise, we play two-way game tries. The minimum bid asks partner "in what suit would you accept a help-suit try" while other bids are short-suit game tries. A raise to three ($1\heartsuit-2\heartsuit-3\heartsuit$) is preemptive, showing an extra trump and not a serious try for game.

A direct raise to three or four of opener's major is weak, based on the law of total tricks. This shows at *most* the bottom of the single raise range (0-7 hcp).

Distributional limit raises and game forces make the minimum jump bid. This is 2NT over $1\spadesuit$ opening and $2\spadesuit$ over $1\heartsuit$ opening. Opener then shows his range via steps. The minimum step shows about 9-11 hcp; all other steps are forcing to game. The second step denies slam interest opposite the limit raise (responder can still look with a suitable hand) and the third step is very slammish. Opener's fourth step forces a cue, fifth step is keycard, and higher bids are void-showing slam tries. Assuming opener makes one of the first three step responses, partner can sign off in game or show shortness (note that signing off in a partscore is not an option). Showing shortness generally involves bidding the short suit, with a replacement scheme ($1\spadesuit-2NT-3\clubsuit-3\spadesuit$ shows club shortness since clubs are unavailable below the game level). This shortness showing bid is a game try opposite the minimum step and is otherwise a slam try. If opener makes a non-minimum step response, then the minimum bid ($1\spadesuit-2NT-3\heartsuit-3\heartsuit$)

is artificial and shows an unspecified void (opener relays to ask). Responder also has the option to bid keycard opposite the first or second step by bidding the suit above trumps ($1\spadesuit$ -2NT- $3\clubsuit$ \diamond -3NT). The distributional limit raise typically has 7 losers.

It is also possible to make a game forcing raise by making a two-over-one bid first and raising opener's suit (to the *three level*) at the second turn.

In addition, we play $1\heartsuit$ -2NT and $1\spadesuit$ - $3\clubsuit$ as a balanced limit raise. While we could express such a raise using a forcing notrump, this tends to have poor results if the opponents enter the auction. After the limit raise bid, opener can show his second suit naturally (3-major is a replacement bid), or he can bid game, bid the suit above the major as keycard, or cuebid using the higher calls.

2.5 Weak Jumps

Jump responses to one-major are weak jump shifts (except for $1\heartsuit$ - $2\spadesuit$ and $1\spadesuit$ - $3\clubsuit$). These have the wide range of 0-9 hcp (any hand too weak for 3NT). The weak jump promises at least a six-card suit. The suit quality and point requirements are imprecise and vary depending on vulnerability. Opener will almost always pass the weak jump, although a raise is possible with a good fit for responder (this is mostly a law of total tricks bid) and opener can make other bids holding extreme shape (typically a void in responder's suit and either a seven card first suit or 6-5 in two suits).

2.6 Interference After Major Opening

If the opponents double our major suit opening, we essentially ignore the double. The 1NT bid is still forcing, $1\spadesuit$ still acts as a forcing notrump. We have the additional option of redouble, which shows good values (10 or more hcp) with no fit for opener (intent to penalize later bids). Weak jumps and the lowest jump as forcing raise are still available.

If the opponents overcall (naturally) we play negative doubles. A negative double always shows at least four cards in the unbid major suit. We will make negative doubles holding more cards in the unbid major if too weak to bid it directly. If both majors have been bid, then the negative double tends to show both minors. However, it is possible to make a negative double here holding diamonds only (correcting partner's club bid to diamonds). The point range for a negative double varies, but is usually 8+ hcp. New suit bids after an overcall can be slightly lighter than our normal two-over-one calls. A cuebid shows a limit raise or better in support of opener's suit. Opener can rebid his major to show a minimum, bid an intervening suit as a game try, or bid beyond three of his major to try for slam (or sign off in game). A jump raise of opener is preemptive. A jump in a new suit is fit-showing; this shows the offensive strength to raise to the appropriate level in opener's major, along with length and strength in the bid suit.

If the opponents make an artificial overcall (this includes transfer overcalls, unusual notrump, cuebids showing two suiters, but does *not* include natural bids

which promise additional distribution) then we play slightly different methods. A double shows interest in penalizing the opponents' eventual contract. A cuebid of the opponents' suit (assuming they have exactly one known suit) is a limit raise or better of partner. If the opponents have two known suits, then the lower cuebid shows a good hand with interest in the lower remaining suit and the higher cuebid shows a good hand with interest in the higher remaining suit (unusual vs unusual). Doubles later in the auction will always be takeout, even after an initial double of the two-suited bid. However, the double of the two-suited bid sets up a forcing auction where pass will suggest penalizing.

2.7 Interference After the Response

In general, we play double is takeout. This applies even if three suits have been bid (two by our side, one by theirs) or if our last bid was notrump. A takeout double by opener after a forcing notrump typically shows interest in the highest unbid suit. For example, in the auction (1♠-p-1NT-2♣-X), the double is takeout of clubs and indicates four hearts. Opener may or may not have support for diamonds (he can correct a 2♦ bid to hearts or spades).

After a two-over-one bid we are in a strong sequence. We will not normally allow the opponents to play an undoubled contract (we will either compete or double). In such a sequence, double is *still takeout*. However, a pass has a conventional meaning. Since pass cannot be intending to let the opponents play undoubled, pass is a suggestion that partner make a double. This is not "unilateral penalty" but partner will tend to double even if off-shape for takeout double, unless holding a hand which is unsuited to defending (too shapely, too much support for opener's first suit, slam interest).

If the opponents interfere after a single raise, then bids of new suits below three of the agreed major are game tries. Three of the agreed major is just competing. If at least one bid is available for a game try, then double is penalty (we do not make takeout doubles when we have an agreed fit). Otherwise double is the game try (maximal double).

If the opponents interfere after the forcing raise (lowest jump) then double is penalty-oriented, pass is leaving the decision to partner, four-major is to play, and new suit bids are slam tries.

The general principles about doubles here and in other auctions are:

1. Normally, double is takeout
2. If we have an agreed fit, then double is penalty (except maximal)
3. If we are in a strong auction, then pass requests a double

3 Notrump Systems

The one notrump opening shows 10-12 hcp balanced if in first or second seat nonvulnerable, or 12-14 hcp balanced otherwise. These bids include hands with

five-card majors (5332) if in the required point range; in fact such hands will *always* open 1NT as they cannot open the major suit. Hands with 4225 type shape will also open 1NT if not holding a five-card major (these hands also have no other opening bid available). Hands with six card minors (6322) may open 1NT or two of the minor, depending upon the location of values.

Our notrump systems are based on the Keri system defined by Ron Klinger, with various modifications (we hope improvements) by Charlie Garrod. We call this method Keri-Garrod. The basic responses are:

4♥ ♠	signoff, no slam interest
4♣ ◇	transfer to hearts and to spades
3NT	to play
3♠	shows 4♠, 0-1♥, 3+ cards in each minor, GF
3♥	shows 4♥, 0-1♠, 3+ cards in each minor, GF
3◇	shows 4+◇, 0-1♣, 3-4 cards in each major, GF
3♣	shows 4+♣, 0-1◇, 3-4 cards in each major, GF
2NT	transfer to 3♣, either signoff or GF strength
2♠	asks if opener is maximum; often a balanced invite
2♥	transfer to ♠, signoff or GF or inv with 6+♠
2◇	transfer to ♥, signoff, or GF, or a few invites
2♣	forces 2◇; diam signoff, invite with a suit, or some GF hands

The first response is usually the same as in “standard” notrump systems although the follow-up sequences (especially after 2♣) tend to be different. The main change is that almost all invitational hands with some interest in a suit contract go through 2♣; we very rarely make a transfer bid on a hand which wants to invite game. We will also occasionally transfer into a four-card major, especially on shapely game-going hands.

3.1 Bidding after 1NT-2♣

The 2♣ bid forces opener to bid 2◇. If the auction is unobstructed, opener will always bid 2◇. Responder now describes the nature of his hand as follows:

Pass	diamond signoff
2♥	4-5 hearts, invitational values, not forcing
2♠	4-5 spades, invitational values, not forcing
2NT	balanced game force
3♣ ◇	six card minor, invitational values
3♥	shows 5+◇, 3♥, 0-1♠; game forcing
3♠	shows 5+◇, 3♠, 0-1♥; game forcing
3NT	mild slam interest with 5+◇
4♣	6+◇ and 4♣, slam interest

After responder rebids 2♥ or 2♠, opener is permitted to pass with a minimum and 3-4 card support. Opener’s actions after 2♥ are:

Pass		3-4 card fit, minimum hand
2♠		4+♠, denies 4♥, forcing one round
2NT		minimum hand with 2♥
3♣		max hand with 2♥
3♦		max hand with 3♥
3♥		minimum with 4♥, a side doubleton, and prime values
3♠		2254 or 2245, maximum hand
3NT		3433 maximum with 4♥, choice of games

In most cases a three-level continuation by responder will be nonforcing. If opener bids 3♦ (showing 3-card support) then the other major (here 3♠) can be used as a checkback, asking if opener is 4333 (opener bids 3NT if so, otherwise four-major). It is possible for us to stop short of game when opener shows a maximum, as we tend to invite on some distributional hands where the high-card total will be less than 25.

Opener's continuations after a 2♠ invite are similar, except that 3♥ by opener shows *five* hearts and a maximum hand (responder checks back with 3♠ if he has five spades and no heart fit).

If responder bids 3♣ or 3♦ to invite with a six-card suit, opener can pass, bid 3NT, or cuebid a stopper if worried about controls.

If responder bids 2NT, opener's continuations are:

3♣		not 4333 and no 5-major
3♦		any 4333 shape
3♥		shows <i>five</i> hearts
3♠		shows five spades and 3 hearts
3NT		shows five spades and 2 hearts

If opener bids 3♣, then 3♦ is stayman and major suit bids are five cards. If opener bids 3♦, then major suit bids ask for a game bid if holding four card support. If opener bids 3♥, then 3♠ shows five spades and looks for a spade game.

If responder jumps to 3♥ or 3♠, opener's continuations follow our general rules for bidding over splinters, described in a later section.

3.2 Bidding after 1NT-2♦ or 1NT-2♥

Most of the time, opener will accept the transfer. With four-card support and a hand filled with quick tricks and trump honors, we will super-accept. A bid of 2NT shows two top trump honors and quick tricks; bidding a suit other than accepting the transfer shows the lowest quick trick in a hand with one top trump honor. Accepting the transfer directly at the three level shows any hand with five card support.

After 1NT-2♥-2♠, responder's continuations are as follows:

Pass		spade signoff
2NT		game force with 4+♣ and 4+♠, not balanced
3♣		game force with 4♦ and 5+♠
3♦		game force with 5+♦ and 4+♠
3♥		game force with 5+♠ and 4+♥
3♠		invitational to game with 6+♠
3NT		mild slam interest, balanced with 5♠
4♣ ♦ ♥		splinter with 6+♠
4♠		mild slam try with 6+♠

Notice that the only invite is the single-suited spade hand. All other invitational hands with spades will go through 2♣. If responder bids 3♦, then opener's next call is:

3♥		<i>three</i> spades, checkback for a fit
3♠		sets spades as trump
3NT		strength in the unbid suits (♥, ♣), suggests a contract
4♣		cuebid in support of diamonds
4♦		sets diamonds, usually weak in clubs or hearts
4♥		cuebid in support of diamonds
4♠		4♠, but a very poor hand for slam

After the checkback, responder bids 3♠ or 4♠ with five spades. Otherwise he bids 3NT with no particular slam interest (opener should pull with weakness in one of the unbid suits) or bids past 3NT as a slam try.

If responder's second bid is 3♣, opener can bid 3♠ to set spades as trump. Other options include 3NT (with no spade fit and strength in the unbid suits) or 3♦ as an asking bid. After the 3♦ ask we have:

3♥		high shortage; typically 5143 shape
3♠		low shortage; typically 5341 shape
3NT		equal shortage, 5242 shape
4♣		5242 slam try; very strong hand

If responder bids 2NT to show clubs and spades, then opener can bid 3♣ as an asking bid, or 3♠ to set spades as trumps, or 3NT with cards in the unbid suits. After the 3♣ ask we have:

3♦		5+♣ and 4+♠, symmetric with direct 3♦ sequences
3♥		high shortage; typically 5134
3♠		low shortage; typically 5314
3NT		equal shortage, 5224
4♣		5224 slam try; very strong hand

If responder transfers to hearts initially instead of spades, most of the continuations are similar. We have:

Pass	heart signoff
2♠	nonforcing invite; 4+♥, at least as many ♠ as ♥
2NT	GF with 4+♣ and 4+♥, not balanced
3♣	GF with 4♦ and 5+♥
3♦	GF with 5+♦ and 4+♥
3♥	invite with 6+♥
3♠	GF with 4+♠ and 5+♥
3NT	mild slam try, balanced with 5♥
4♣ ♦	splinter with 6+♥
4♥	mild slam try with 6+♥

The sequences after these bids are mostly identical to after the spade transfer. Note that after 3♦, we still have 3♥ asking for a fit and 3♠ showing a fit (even though the suit is actually hearts). After the transfer to hearts and then 2♠ bid opener's calls are:

Pass	3+♠ and minimum hand
2NT	2♠ and 2-3♥, minimum
3♣	minimum hand but 4♥ and prime values
3♦	shows 3♠, less than 4♥, and maximum hand
3♥	4♥ and minimum values, signoff
3♠	minimum hand but 4♠ and prime values
3NT	maximum hand with no fit for either major
4♥ ♠	maximum with 4 cards in the bid suit

3.3 Bidding after 1NT-2♠

The 2♠ bid asks whether opener is maximum or minimum. With a minimum hand opener bids 2NT; otherwise he bids 3♣. Suit bids by responder at this point are single-suited slam tries. Notrump bids are natural and 4NT is quantitative. A suit bid sets the suit and is a "serious" slam try; opener should normally cuebid an ace.

3.4 Bidding after 1NT-2NT

The 2NT bid transfers to clubs, and opener will always bid 3♣ absent competition. Responder's continuations are:

Pass	club signoff
3♦	5+♦ and 5+♣, game forcing
3♥	3♥, 0-1♠, and 5+♣, game forcing
3♠	3♠, 0-1♥, and 5+♣, game forcing
3NT	5+♣ mild slam interest
4♣	6+♣ and 4♦, slam interest

Continuations are basically natural and follow the general rules about bidding over splinters.

3.5 Bidding after Splinters

There are many different splinter sequences in our methods. The most straightforward are the direct splinter bids, which always show three-suited hands. There are also indirect splinter sequences after minor suit transfers (typically showing major suit shortage without four cards in the other major). After such a splinter bid, we have the following general rules:

- If opener bids the short suit, it denies wastage
- If responder bids the short suit, it shows a void
- If opener bypasses the short suit, it shows wasted values
- If opener bids 3NT (and has not bid the short suit) it suggests a contract
- If responder bids 3NT, opener can only pass with stoppers in short suit
- If opener bids the short suit *at the 4-level* he knows the best fit
- New suit bids at the 3-level do not deny stoppers in the splinter suit
- If opener bypasses 3NT without a known fit, it denies strength in short suit
- New suit bids below game are forcing, looking for a fit
- In general opener describes suits and wastage; responder picks the level

3.6 Doubling our 1NT for penalty

Most doubles of our weak notrump opening are penalty oriented. We play suction-style runouts, with the goal of finding the best contract and putting the strong hand on lead. Responder's calls after 1NT-X are:

Pass	balanced or semi-balanced weak hand, or ♣ signoff
XX	values; desire to play 1NTXX
2♣	signoff in ♠, or weak hand with both majors
2♦	signoff in ♥, or 5-5 in the black suits
2♥	signoff in ♠, or 5-5 in the minors
2♠	preempt in ♣, or weak 5-5 in the red suits
2NT	preempt with 5-5 in two suits of the same shape
3♣	preempt in diamonds or with 5-5 majors

In general opener accepts the transfer to the next higher suit, after which responder can correct to show the two-suited options.

After the redouble, if the opponents run to a suit, the first double by our side is takeout. Subsequent doubles by our side are penalty. Pass suggests penalties, as we are in a forcing auction.

After a pass, opener normally bids 2♣ if he has three or more clubs. Otherwise he redoubles. Opener may optionally bid a good five-card suit if he has one. So opener's calls are:

XX	only 2♣, implies 3+♦
2♣	3+♣
2♦ ♥ ♠	good five card suit

After 2♣ by opener, responder can pass or bid 2♦ to show diamonds and a major (typically 4-4). After XX, responder can bid 2♣ to sign off in clubs, or bid any other suit to play. Redoubles in these sorts of runout auctions are always for rescue.

3.7 Interference over 1NT

If the opponents bid 2♣ or make an artificial double of the 1NT, we play systems on (ignoring the opposing bidding).

If the opponents bid 2♦ or higher, we play rubensohl transfers and a negative double. Double (assuming the opposing bid is natural) is for takeout. Two-level suit bids are natural signoff. Bids of 2NT and above are transfers to the next higher suit. These can be any strength and must be accepted. The exception is a transfer into a suit which could have been bid at the two level; such a transfer shows at least invitational values and opener should bid the full value of his hand.

A transfer into the opponents' suit is a stopper ask. Accepting the transfer shows specifically half a stopper (Qx or Jxx or Qxx). Bidding 3NT shows a full stopper. Other bids are natural and deny as much as a half stopper.

Responder can also transfer and then cue as a stopper ask, or takeout double and then cue.

A voluntary bid of 3NT by responder always guarantees a stopper.

3.8 Systems over natural 2NT

In some sequences, we will make a natural bid of 2NT showing a balanced hand in some range. Our 2NT opening is artificial for minors, but natural 2NT bids can occur as overcalls (of opposing preempts for example) or in some sequences after a 1♣ or 1♦ opening. We play relatively standard methods in these sequences including:

- 3♣ puppet
- 3♦ ♥ transfers to the majors
- 3♠ forces 3NT, usually starting a minor slam try
- 3NT to play
- 4♣ gerber (asking for aces)
- 4♦ ♥ texas transfers to the majors

We use slightly nonstandard responses to $3\clubsuit$ puppet. Opener bids $3\diamond$ with a four-card major but not 5-card major, bids $3\heartsuit$ with no major at all, $3\spadesuit$ with five spades and 3NT with five hearts. This allows responder to check back with $3\spadesuit$ over $3\heartsuit$ if he is 5-4 in the majors (with 4-5 in the majors we transfer to hearts then bid spades).

4 Two-Minor Openings

Two-level minors openings show six or more cards in the bid suit. These are based on the rule of twenty (points plus length of two longest suits at least twenty, and at most twenty-four). Typically the point range is 10-15 hcp. These openings frequently contain a four-card major. They may contain a five-card major, although with a five card major it is acceptable to open one of the major even holding a longer minor suit. With no singleton or void, it is also possible to treat these hands as balanced; in general we will do this if the strength is in the short suits and the long minor is weak.

The response structure is somewhat different for $2\clubsuit$ and for $2\diamond$. In general, 2NT is invitational and 3NT is to play. Three of the minor is a weak raise (usually three card support, occasionally two, no real game interest unless opener's hand is exceptional). Four of the minor is a slam try. Jump shifts remain weak jumps. Bidding the other minor is always artificial and usually indicates a strong hand. Major suit bids are natural and forcing over $2\diamond$ but natural and nonforcing over $2\clubsuit$ (because the $2\diamond$ forcing bid is available at the two level).

Over $2\clubsuit$, the $2\diamond$ response acts as stayman. Opener bids a four-card major if he has one. If not, he can bid 2NT (maximum, game force) or $3\clubsuit$ (minimum, does not show extra clubs). All continuations by responder (except for passing $3\clubsuit$ and bidding 2NT or $3\clubsuit$ over a major bid) are game forcing. Bidding $3\clubsuit$ over 2NT or $3\diamond$ over $3\clubsuit$ starts a stopper cueing sequence for 3NT.

Over $2\diamond$, the major suit bids are forcing for one round. Opener rebids 2NT (maximum, at most two card support) or $3\diamond$ (minimum, at most two card support). The $3\clubsuit$ bid is artificial, showing three card support. Three of the major shows four (agreeing the suit). This is game forcing as the value of opener's hand increases dramatically. Opener may bid a four-card major naturally (though bidding $3\heartsuit$ over $2\spadesuit$ requires a maximum). After $3\diamond$ or 2NT, a new suit by responder is natural and forcing to game and $4\diamond$ is a slam try. After the $3\clubsuit$ bid, a new suit is a cuebid agreeing the major, $3\diamond$ and three of the major are invitational, and $4\diamond$ is a game force setting diamonds.

If the opponents interfere over our minor suit openings, we continue to ignore doubles. If they bid a suit then double is takeout. Cuebid is a strong raise of the minor. Jumping to four of the minor is preemptive after interference.

5 Preempts

Our openings of $2\heartsuit$ and above are preemptive. The suit bids are basically standard preempts, though $3\clubsuit$ and $3\diamondsuit$ are frequently good six-card suits. The 2NT preempt shows both minors (at least 5-5) and a weak hand; this is essentially the “unusual 2NT” bid. The point range is around 7-10, perhaps a bit lighter with extra shape or at favorable vulnerability. The 3NT is “gambling” showing a solid seven-card suit (to the AKQ). In first or second seat opener normally has little to nothing outside the suit. In third or fourth seat, opener has scattered values (partner should not pull the third or fourth seat 3NT). Our responses to preempts are natural. In response to weak two bids in the majors we play 2NT Ogust, where:

$3\clubsuit$		shows a bad hand with a bad suit
$3\diamondsuit$		shows a bad hand with a good suit
$3\heartsuit$		shows a good hand with a bad suit
$3\spadesuit$		shows a good hand with a good suit

In general, a good suit can potentially be played for one loser opposite a small doubleton (at worst something like KJTxxx). A good hand is at the top of the point range. We play direct bids of new suits as nonforcing, whereas ogust followed by a new suit is forcing to game.

Over the 2NT bid, most responses are natural and not forcing. $4\clubsuit$ and $4\diamondsuit$ are each keycard in the *other* minor.

Over gambling 3NT, any bid of clubs at *any level* is pass or correct. Other bids are natural.

Over three-level preempts, new suits are natural and forcing.

6 $1\clubsuit$ Opening

The $1\clubsuit$ opening is a catch-all bid, showing any hand which is in the 11-16 hcp range but unsuited for any other opening. The possibilities are:

- A balanced hand too strong for 1NT but too weak for $1\diamondsuit$
- A three suiter (4441 or 4450 or 1345) with no five-card major
- Both minors

These are rule of twenty openers, so the point range is in general 11-16 (with most 16-counts and any 17-count we would open $1\diamondsuit$). The balanced hand is more limited, 13-15 hcp if in first or second seat nonvulnerable or 15-16 hcp otherwise. Note that the $1\clubsuit$ opening could include a five card major, but only if the hand is balanced (5332). Also, the $1\clubsuit$ opening could be short in clubs (three suiter with as few as zero clubs, or a balanced hand with as few as two). The responses to $1\clubsuit$ are mostly in an asking style, trying to get more information about partner’s hand. They are:

Pass	less than six points, at least five clubs
1♦	6-13 hcp with any distribution
1♥ ♠	4-card suit, 0-9 hcp (too weak to bid opposite 1NT rebid)
1NT	game force with any distribution (usually 14+ hcp)
2♣	less than six points, at least 3 cards in each minor
2♦	less than six points, at least 5 diamonds

Most hands will respond 1♦. The 1NT bid sets up a game forcing sequence. The other bids are basically runouts, except that the major suit bids can be made on exactly four cards and up to 8 or 9 hcp, so as to find our 4-4 major fits opposite the balanced hand (after 1♣-1♦-1NT, these hands are too weak to invite and would have to pass). Note that only 1♦ and 1NT are forcing here!

Opener's rebids after the weak responses are natural. With three card support for partner's major, opener can pass. With four cards, we typically raise (a law of total tricks action to try to buy the contract). With two or fewer, opener scrambles. After a weak response in a major, 1NT shows a balanced hand with a doubleton in partner's suit. Subsequent bidding after this 1NT is natural, systems are off.

After 1♣-1♦, the most common sequence, opener bids 1NT with the balanced hand. With a three suiter holding at least one four card major, he bids the suit below his shortness. Holding 3-1 or 3-0 in the majors, opener bids two of his fragment suit (the three card major). Holding both minors, at least five-five, opener bids 2NT. The full set of rebids is:

1♥	short spades, three suiter, four hearts
1♠	short clubs, three suiter, four-five diamonds
1NT	balanced hand
2♣	short diamonds, three suiter, four-five clubs
2♦	short hearts, three suiter, four spades
2♥	three hearts, 5-4 or 5-5 minors
2♠	three spades, 5-4 or 5-5 minors
2NT	at least 5-5 in the minors, no 3-card major

After the 1NT rebid, we play our notrump systems as described earlier. After the 2♥ and above rebids, bidding is basically natural with 2NT being an inquiry (asking longer minor). After the suit-below-shortness bid, responder may bid the short suit to ask for more information. Other bids are natural and not forcing (jumps show limit raise type hands). After responder bids the short suit, opener's continuations are:

- Bid notrump to show 4441
- Bid the longer suit of the other rank from the shortness (1345 shape)
- Bid the known suit of the same rank of the shortness (0445 shape)

For example, 1♣-1♦-1♠-2♣-2♥: The 1♠ bid shows club shortness and 2♣ asks for exact shape. The 2♥ bid shows 4 hearts, implying 3451 exactly.

After discovering exact shape, responder may again make a natural bid (not forcing, three-level is normally invitational, two-level signoffish). If responder has suddenly discovered slam interest (rare but it can happen on especially well-fitting hands) he can bid the short suit *again*.

The second short suit bid starts a relay sequence. Opener makes the minimum call to show a minimal opener, and otherwise shows number of controls by steps starting from three (ace is two controls, king is one). If opener shows a minimum, then the minimum call relays for controls (the first step is 0-2). Once controls are shown, the minimum step starts denial cuebids. Any non-minimum all by responder is signoff (although we are forced to game so occasionally a sub-game non-minimal call can be used to force a cue or give choice of games).

After the 1NT response to 1♣, the idea is to make responder's hand (which is typically stronger as well as less described) the declarer. Opener bids his short suit if he has one, making the continuations:

2♣	◇	♥	♠	short suit, three suited hand
			2NT	balanced hand
		3♣	◇	better minor, at least 5-5 in the minors
		3♥	♠	void, 5530 shape exactly

After the 2NT bid, systems are on. Opener will typically cuebid in response to a transfer if he has a fit (rather than simply accepting).

After the other bids, responder may set the suit to start cuebidding. Alternately, he can make the lowest step bid (2◇ over 2♣, 2NT over 2♠, and so forth) to ask for exact shape. Opener then bids his *three card suit*. If no three card suit, opener bids notrump to show 4441 or rebids the short suit to show a void. Note that these auctions are forcing to game (they cannot stop in four of a minor).

6.1 Interference after the 1♣ Bid

If the opponents bid at the one or two level after the 1♣ opening, then double becomes the positive response. The double shows 8-13 hcp at the one level, or 10+ hcp at the two level. If still available, 1NT is still a game force. This double shows only values, it is neither takeout nor penalty. It “authorizes” opener to describe his hand further. Opener continues by bidding the suit below his shortness as described above (or bidding notrump to show the balanced hand, which does not promise a stopper). This is one situation where we may have to use the 2NT systems. If responder names a suit after the opponents bid at the one or two level, this shows 5-8 hcp and at least five cards. The suit quality should be reasonable. This is a negative free bid and is not forcing. Doubling a natural 1NT overcall here is penalty oriented and will usually be passed, though the values described remain the same. Also, opener may choose to convert the double if holding strength in the opponents suit; he is not obligated to show his hand in this case. If the opponents double the 1♣ opening, then *redouble* shows 8-13 hcp as described and suit bids are 5-8 points with five cards (pass with the weak hands).

If the opponents bid beyond the two level but below 4♥, then double is takeout. Opener should bid naturally. If the opponents bid 4♥ or above, then double is penalty (opener will rarely pull this double, but may do so with great length in the minors or a maximal 0445 type hand). A bid by responder at the three level is natural and forcing.

If the opponents make an artificial bid below 2NT, then double retains its “values” meaning. If the opponents make an artificial bid 2NT or above which does not show the bid suit (most frequently 2NT for either minors or reds) then double indicates interest in penalizing (pass then double later is takeout).

If responder passes, opener may take a natural balancing action (most frequent is a takeout double).

On occasion inferences can be drawn about opener’s distribution based on the hand types for the 1♣ bid. In general these hands either hold both minors or support for three of the four suits. We have had some odd sounding auctions in the past, for example: 1♣-4♥-4♠-pass-5♣-pass-6♦. In this auction, the opponents preempted 4♥. Responder suggested playing in 4♠; this bid can be made on a five (or even four) card suit! Responder knows because of the 4♥ bid and his own holding in hearts that opener must be short in hearts, implying that he probably has spade support. When opener bids 5♣, this denies spade support, which leaves “minors” as the only possibility. Responder leaps to 6♦ in the known fit.

6.2 Interference after the Response

What if the opponents interfere after the response to 1♣? If the response is weak (usually a major suit) then we continue to bid naturally. The interesting case is interference after a response of 1♦ or 1NT. In addition, this section applies with interference after the 1♣ bid, a double, and then interference after the double (for example 1♣-1♠-X-2♠). This section applies as long as the interference is 2♠ or below (otherwise we bid naturally with doubles being takeout below 4♠).

Opener should bid notrump with a balanced hand and a stopper. If opener has a three suiter short in the righthand opponent’s suit, he should make his second bid as if he has already shown shortness. In this case, a cuebid of the opposing suit shows a void, and bidding the opposite major (assuming opponents bid 1♥ or 1♠) shows 1345 shape with 3 cards in the opposite major and shortness in the opponents major. This describes his exact distribution. After double or 1♦ by partner, this response is semi-natural. After 1NT by partner, the response is a three card suit. If opener is 4441, he cannot make his normal second bid of notrump at the lowest level (this would show a balanced hand). Double replaces this bid. Opener can jump in notrump to show minors. The remaining hand types will generally pass. So after 1♣-pass-1♦-1♠ we have:

1NT	balanced hand, spade stopper
2♣	1435 shape
2♦	1453 shape
2♥	1354 or 1345
2♠	spade void, 0445 or 0454
2NT	minors
pass	balanced with no stopper or three suiter not short in spade

Responder will frequently reopen after the pass. His reopening bids are natural, and his reopening double is takeout and should be responded to naturally (a response of notrump to reopening double should deny a stopper).

If responder cues the opponents' suit after this rebid, since opener's exact shape is known this cuebid is blackwood once again.

If opener rebids notrump directly over the interference, then notrump systems are on.

7 1♦ Opening

The 1♦ opening is much the same as a precision club. If a balanced hand, the opening shows 16 or more hcp if 1st or 2nd seat nonvulnerable or 17+ hcp otherwise. As usual, we include all 5332 hands, 4225 hands with no 5-card major, and some 6322 hands with six card minors as balanced. With an unbalanced hand, the 1♦ opening is based on the sum of the points and the length of the two longest suits, which must total at least 25. Typically this also shows 16 hcp although it could be less with a lot of distribution. A minimum 1♦ opener will have the points in the suits; holdings like singleton honors and jack-doubleton will normally downgrade borderline hands by a point or two to one level openings.

The most common response to 1♦ is 1♥, which shows any hand with game-forcing strength (9+ points usually) and also any very weak hand (0-4 points). All other bids show the intermediate range! The full set of responses looks like:

1♥	any 0-4 points or any GF
1♠	5-8 hcp balanced or semi-balanced
1NT	4441 or 4450 shape (any shortness), 5-8 hcp
2♣	5+♣, 5-8 points, not balanced
2♦	5+♦, 5-8 points, not balanced
2♥	5+♥, 5-8 points, not balanced
2♠	5+♠, 5-8 points, not <i>exactly</i> 3♥, not balanced
2NT	both minors, 5-8 points
3♣	5+♠, 4+♣, 3♥, 0-1♦, 5-8 points
3♦	5+♠, 4+♦, 3♥, 0-1♣, 5-8 points
3♥	6+♠, 3♥, 5-8 points

After a 1♠ response, notrump systems are on. Opener can invite by bidding 2♣, can show a balanced game force, and so on. With a poor balanced hand

where 1NT will be the best contract opposite most 5-6 point responses, opener bids 1NT. After this, again systems are on and responder can invite!

After a 2♣ or 2♦ response, structures mirror what happens after a 2♣ or 2♦ opening. Of course responder can have only five cards but this is fairly rare and we usually bid game on these hands anyway.

After a 2♥ or 2♠ response, the minimum bid acts as a “forcing notrump” asking for a second suit. Bids are basically natural here. Three-over-two is forcing to game, as is a direct raise of the major suit to the three level.

After a 2NT response, three of a minor is not forcing. Four of a minor is keycard in the other minor. Three of a major is natural and encouraging (but not forcing).

7.1 1♦-1♥

Opener normally makes a natural bid now. His bids carry a wide range; as long as he is not willing to be in game opposite a four-count there’s no need to distinguish between strong and weak openers. Opener’s bids are:

1♠		a three-suited hand, or any 21+ hcp
1NT		16-21 balanced
2♣		6+ clubs
2♦		6+ diamonds
2♥		5+♥, not balanced hand
2♠		5+♠, not balanced hand
2NT		both minors at least 5-5
3♣ +		sets the suit, requests a cuebid

Systems are on after the 1NT bid. An “invitational” sequence by responder is game forcing and shows about 9-12 points. A “game-forcing” sequence by responder indicates slam interest opposite a suitable 16-count.

After 2♣ through 2NT, bidding is basically the same as after the direct responses to 1♦ (of 2♣ through 2NT). If responder does not pass, the auction is game forcing. With a good fit for opener’s major and 0-4 points we typically jump to game.

The only really complex sequence is 1♦-1♥-1♠. If responder has the game-forcing hand, he bids 1NT. If he has a bad hand, he bids his lowest suit. After responder bids his lowest suit, opener’s calls are natural. If opener makes the minimum bid, this shows a three suited hand short in responder’s suit, and is nonforcing. Other bids show 21+ and (except for 2NT) are normally forcing one round.

7.2 1♦-1♥-1♠-1NT

Opener’s first continuation here describes the nature of his hand.

2♣		21+ points, usually no 6+ minor
2♦		three-suiter short hearts, 4♠
2♥		three-suiter short spades, 4♥
2♠		three-suiter short clubs, 4+♦
2NT		three-suiter short diams, 4+♣
3♣		6+♣, 21+ points, but not insisting on ♣ as trump
3♦		6+♦, 21+ points, but not insisting on ♦ as trump
3♥		3♥, 4-5 minors, short spades
3♠		3♠, 4-5 minors, short hearts
3NT		21+ points, at least 5-5 minors

If opener shows a three-suiter, responder can make the minimum bid to ask for exact shape. Opener now bids naturally, much as if the auction had started 1♣-1♦. Bidding the known suit shows 4450, bidding the short suit again (or bidding notrump) shows 4441. After 1♦-1♥-1♠-1NT-2♠-2NT:

3♣		4441 shape
3♦		4450 shape
3♥		3451 shape
3♠		4351 shape

If opener bids 3♣ or 3♦, systems are on much as if the opening were 2♣ or 2♦, and we are forced to at least 4NT on our 30 combined points.

If opener bids 2♣, responder should bid 2♦ after which opener bids:

2♥		5+ hearts, not balanced, 21+ points
2♠		5+ spades, not balanced, 21+ points
2NT		21+ balanced
3♣ +		setting the suit, strong one-suiter

Note that showing a three-suiter does not deny holding 21+ points; we will bid this way with any three suiter in a game forcing auction so as to find the best fit.

7.3 1♦-1NT

Opener bids his lowest four-card suit. This is forcing. Responder now makes the lowest possible call to say “you bid my short suit.” If responder in fact has a fit for the suit opener selects, then he bids his short suit. Bidding 2NT acts as a replacement bid if the short suit is the lowest call. So for example after 1♦-1NT-2♥:

2♠		short hearts; 4♠
2NT		short spades, 4♥
3♣		short clubs, 4♥
3♦		short diams, 4♥

If responder shows a fit for a major opener selects, then we are forced to game and new suit bids are cuebids. If responder shows a fit for a minor opener selects, then if opener bids a major it sets the suit to that major. If opener bids the minor at the lowest level it is nonforcing (but responder bids on with a maximum). If opener bids four of the minor, it asks for a cuebid.

If responder shows shortage in opener's suit, then opener can pass. If opener bids a new suit at the *two level* it is to play. If opener bids a new suit at the three-level or above (or raises responder's bid to the three level) it is forcing to game.

If opener rebids responder's short suit, it is to play (6+ cards).

7.4 Interference after 1 \diamond

If the opponents bid to 2 \spadesuit or below after the strong diamond opener, then a double is an artificial game force (8+ hcp) which says nothing about the distribution of responder's hand. If the opponents double, redouble shows this 8+ hcp hand. A double if the opponents bid naturally at the three level (through 4 \heartsuit) is takeout and higher doubles are penalty (in all cases game forcing values).

After interference, a free bid in a new suit shows 5-8 hcp and at least five cards (natural) if at the two level or below. A three level bid in a new suit is natural and game forcing.

If the opponents make some high-level (3-level or above) artificial bid, then double is takeout of the bid suit if not forcing or shows the bid suit if the opponents action is forcing. In all cases this shows game forcing values.

7.5 Interference after the response

If the opponents bid after a response, we play our usual methods where double is takeout. If opener passes after a 1 \heartsuit response and an overcall, this is not forcing when responder has the weak hand (of course with a game force responder will bid again). This pass normally suggests a balanced hand or desire to penalize.

If opener makes a takeout double, we play our methods much as if an opening bid had been doubled. So for example after 1 \diamond -p-1 \heartsuit -2 \spadesuit -X, we play lebensohl.

If we are in a game forcing sequence because responder has made a double, then pass is forcing and suggests penalties.

8 Slam Bidding

We have a number of different tools available for slam bidding. We prefer to set the suit and use cuebids where possible, and tend to use keycard only when one of the bidders has guaranteed a balanced hand, or when the much stronger hand is asking a weaker, limited hand. Certain sequences make use of relays and denial cuebids, but this is not our most frequent way of looking for slam.

8.1 Serious and Nonserious Slam Try

When a major suit is agreed at the three-level, the lowest bid shows serious interest in slam and forces a cuebid from partner. Bypassing this bid is a cuebid, but only cooperates in case partner has extras (partner can sign off in game if he is minimal). We do not generally bid four of the major directly (fast arrival) unless we have no outside ace to cuebid or partner's hand is limited and slam is out of the question.

These sequences typically occur after two-over-one calls ($1\spadesuit-2\clubsuit-2\heartsuit-3\heartsuit$) or after a $1\diamond$ opening ($1\diamond-1\heartsuit-2\heartsuit-3\heartsuit$). In each case, $3\spadesuit$ is a serious slam try and higher bids are "courtesy" cuebids ($3NT$ is a spade cue).

8.2 Splinters and Point Count

On occasion we can bid a slam based simply on points. With 33 points we will bid a small slam in notrump and with 37 we will bid a grand. Our tendency is to avoid ace-asking sequences in such auctions (we don't even *play* Gerber over 1NT), and to use various quantitative invites if uncertain about the total strength.

After a splinter bid, if opener shows no wastage we can often bid a slam based on this alone. The rule is, for a small slam we must have all but 7 of the "meaningful" points and for a grand slam all but 3. With a singleton, there are 34 meaningful points (KQJ of the short suit don't matter) and with a void there are 30. Of course we need to make sure partner did not count any of these meaningless points for his opening, and this is what the no wastage "anti-cuebid" accomplishes for us.

8.3 Cuebidding Style and 5NT Inquiry

We mostly follow the "american" cuebidding style of showing first round controls at the first round. On occasion we will cuebid a king; this is allowed if the king is in a suit partner has shown, or if we have no first-round controls to show but really want to express interest in slam. We will never cuebid singletons on the first round.

At times a cuebidding auction will bypass keycard. If we determine that a grand slam is a possibility, it becomes important to determine partner's trump quality. We use 5NT as an inquiry in such auctions, asking for top trump honors. The responses are in steps with the first step being the worst trump suit and so forth. In general this will be by count (first step shows no trump honors, second step one of top three, and so forth) but on occasion there are inferences about the trump holding and, especially if the suit is clubs, we will modify the responses (i.e. $6\clubsuit$ shows a disappointing trump suit for previous actions, and so forth).

8.4 Kickback 1430 Keycard

The bid directly above four of the trump suit is used for keycard. This is very handy when the agreed suit is a minor, but we need to have good rules to determine when keycard is on. The basic rules are:

If the suit is clearly agreed, then the bid just above four of the suit is keycard. If the suit was the last one partner bid and there is a natural, forcing call available in the suit just above, then a jump to four of the suit above is keycard. However, if *both* sides have previously made nonforcing bids, then there is no keycard.

For example, $2\clubsuit-4\diamond$ is keycard, $1\heartsuit-2\heartsuit-4\spadesuit$ is keycard.

There are also some unusual keycard sequences in our methods. After a major suit opening and a limit raise (or limit-plus) response, we often have keycard available at the three-level ($1\spadesuit-2NT-3NT$ is keycard). After a bid which shows both minors, jumping to the four level is keycard in the other minor ($2NT-4\clubsuit$ is keycard for diamonds).

In all cases we play 1430 style responses by steps. The steps are:

1. One or Four keycards
2. Zero or Three keycards
3. Two or Five keycards, no trump queen
4. Two or Five keycards, with trump queen
5. An Even number of keycards *and* an outside void
6. An Odd number of keycards, void in the bid suit

Higher bids also show an odd number of keycards with a void, and we use a replacement scheme (notrump shows a void in the highest suit). In general we try to avoid keycard in sequences where a void-showing response is likely, and we will not always show our voids if holding a disappointing number of keycards or void in partner's bid suit.

After the keycard response, we can continue keycard. If the location of the trump queen is unclear, then the lowest call asks for the trump queen. Partner should bid the trump suit at the lowest level with no trump queen, cuebid an outside king when holding the trump queen (again NT replaces the highest bid), or jump in the trump suit to show the trump queen but no outside king. After partner denies the trump queen, bidding the keycard suit (the next bid above the trump suit) asks for specific kings.

If the location of the trump queen is clear, then rebidding the keycard suit (one above the trump suit) asks for specific kings. If the location of the trump queen is not clear, then rebidding the keycard suit asks for number of kings (to ask for specific kings, first ask for the queen).

In any case, bidding a new suit (including notrump) which is neither the agreed suit *nor* the queen ask *nor* the kickback suit (which is one above the

agreed suit) is a specific suit ask. A notrump bid which is a specific suit ask asks about the suit which would be most awkward to bid naturally. In response to such a control asking bid, the first step shows nothing useful, second step shows the queen or doubleton, third step shows the king or singleton, and fourth step shows king and queen.

8.5 Control-Showing Relays

Our final, and least-frequent, slam bidding tool is the control showing relay. This generally comes up after $1\clubsuit$ opening and a forward-going response (but *not* a 1NT response) or after a $1\diamondsuit$ opening and jump to the 3-level. The control asking relay is typically a bid of partner's short suit. This is replied to with a step response. The first step shows a bad hand for what has already been shown. The second step shows a good hand with three controls (ace is two, king is one). Higher steps show more controls.

In all cases the minimum rebid by relayer will ask for more description. The exceptions are that 3NT is never a relay (always to play) and bids 6NT and above cannot be relays (also to play). If describer made the first step (bad hand) then the next responses will show number of controls with the first step being 0-2 and higher steps showing more. Once number of controls is known, we will use denial cuebids.

Denial cuebids work as follows. There is an order to the suits. Basically this is from longest suit in describers hand on down, with short suits excluded entirely. If there is a tie, then the highest suit (spades) comes first. We scan cyclically through the suits in order. The first step says "I have nothing in the first suit if the scan." The second step says "I have something in the first suit, but nothing in the second suit." And so on. Another relay picks up where the scan left off. This process loops around, so the second scan of a suit we will be showing a second card. Queens can be shown only when all the controls have been shown, or on the second pass through. If there's a third pass we can show jacks.

9 Defense to Natural One-Suit bids

We play natural overcalls, normally in the range of 8-16 hcp. Occasionally we will make an overcall with a weaker hand and a good suit, or with a stronger hand and an awkward continuation problem. An overcall tends to deny holding four or more cards in an unbid major suit, except for a spade overcall when holding hearts. So for example, overcalling $1\heartsuit$ after a natural minor opening usually denies holding four or more spades. Our two-level overcalls require stronger hands, usually 12+ hcp if a five card suit or 10+ if a six card suit. We will overcall on good four card suits at the one level. Our notrump overcalls are 15-18 hcp with a stopper in direct seat, and 11-14 hcp in balancing seat.

We play Max Hardy's system for showing two suited hands. Our cuebids are top and bottom (five cards in the bottom suit, four in the top as a minimum)

and show at least ten points. Typically the lower suit is longer or better. We play a jump to 2NT as showing the two lowest unbid suits, usually at least 5-5, either weak or very strong. Jumping in an unbid minor over a minor suit opening ($1\clubsuit-2\diamond$ or $1\diamond-3\clubsuit$) shows a two suiter with five cards in the bid minor and four hearts (or more distributional). The range for these bids is around 10-16 hcp. We also play equal level correction, so our takeout double will be one of:

- Support (3+ cards) for all unbid suits
- Good support (4+ cards) for the higher two unbid suits
- A very strong hand (16+ points)

Correcting to the lower of the two highest unbid suits shows the second hand type (this is called a type four double) and does not show extra values. Note that a takeout double *always* promises some strength, at least ten points in direct seat (usually more). We do not make takeout doubles with the very weak five-five majors hands (these hands tend to pass or occasionally bid $1\spadesuit$).

We play aggressive weak jump shifts (except the previously mentioned minor over minor jumps) and will sometimes bid to the three level on a six card suit or the two level on five. We do play ogust after these weak jumps (it's rare though).

After partner's overcall, a new suit continuation is forcing if at the same level, and nonforcing (constructive) if it raises the level of the auction. So after a $1\heartsuit$ overcall, $1\spadesuit$ would be forcing (five spades), but two of a new minor suit would not be (the range is around 10-14 hcp). A cuebid of opener's suit shows either a limit raise (plus) of partner's overcall or any hand which wants to force to game opposite an overcall (rare with no fit). A one notrump response to partner's overcall shows about 8-11 hcp and is *not forcing*. Jumps in new suits are fit-showing; hands with the offensive strength to raise overcaller's suit to the appropriate level with length and strength in the bid suit.

We play a jump cuebid of opener's suit as natural, a good six card suit and around 9-13 hcp (intermediate).

If both opponents have bid naturally, we do not overcall a strong notrump. Instead, the notrump bid is sandwich (weak takeout for the unbid suits, usually the lower suit being longer). A double is strong takeout for the unbid suits (possibly only 4-4 at the one level but guarantees an opening hand). If both opponents have bid naturally, then bidding one of their suits is natural and a normal two-level overcall. So if the opponents open $1\clubsuit$ and respond $1\heartsuit$, then a bid of either $2\clubsuit$ or $2\heartsuit$ by us is natural and sound (at least five good cards, often six).

When we bid 2NT it is rarely suggesting a contract. In many cases 2NT offers a choice of the two lower unbid suits. When the values for 3NT cannot be present, we will use 2NT to show a raise of partner's suit without a top honor; for example $1\diamond-2\clubsuit-2\spadesuit-2NT$. Given the opponents bidding, one would assume they have more than half the points. 2NT here is a raise to $3\clubsuit$ without a top

club honor (3♣ would guarantee an honor). We also use lebensohl over weak two bids.

We play responsive doubles at low-levels, but not at the three level and above. So 1♣-X-2♣-X is asking for partner's better major, but 1♣-X-3♣-X is penalty. Doubles of suits which partner has implicitly shown via a takeout double are also penalty; for example 1♣-X-1♠-X is penalty; with both unbid suits we'd tend to bid the major (hearts). If partner overcalls and the opponents raise their original suit, then double is for takeout. If partner overcalls and opponents bid a new suit, then we play snapdragon doubles (but only through 2♥). We also play lead directional doubles of cuebids (double usually shows honor-doubleton for partner's suit) and anti-lead directional doubles of cuebids (if I overcall then double a cuebid of my suit, it says "do *not* lead my suit").

We balance aggressively in one level auctions and where our opponents have found a fit. Point ranges for various bids tend to be lighter in balancing seat. We also play *weak jumps* in balancing seat. These jumps tend to be relatively sound (we are hoping to make the contract) but still show less than a good opening hand. Bidding 2NT in balancing seat is *still unusual* not a strong balanced hand. The idea here is to prevent opener from re-entering the auction when balancer holds a weak shapely hand (typically opener has a big hand in this sequence). We frequently balance with four card suits at the two level when the opponents have shown a fit.

In general, if game seems likely opposite less than 8 hcp, we will strive to bid in direct seat. We will not pass on 19 hcp hands and depend upon partner to balance on a five-count.

10 Defense to Opponents Notrump

If our opponents open a strong notrump, we play the following structure:

Double	shows a major-minor two suiter
2♣	shows both majors (normally 5-4)
2♦ ♡ ♠	are natural, usually six card suits
2NT	unusual for the minors
3♣	natural, fairly wide range of values

After the 2♣ call, partner can sign off in a major or bid 2♦ (asking for longer major). If the 2♣ call is doubled, then redouble is rescue (pick a major) and 2♦ becomes natural.

After the double, advancer bids the lowest suit he is willing to tolerate opposite five. The doubler then bids his five card suit (if available at the two level) or his four card suit (if not) or passes partner's bid (guaranteeing length if the suit is not 2♠). After showing the five-card suit, partner can scramble by bidding 2NT over a major suit or 2♥ over 2♦.

If the opponents bid on over the double, then a subsequent double of a natural suit is takeout, and a double of a transfer bid shows four cards in the bid suit (not the suit transferred to).

If a single suited hand is shown, a subsequent double by partner is penalty (much as if a weak two had been opened).

If our opponents open a weak notrump, we play sound natural overcalls (five or more cards, usually 12+ hcp but sometimes lighter with a six card suit, could also be lighter in balancing seat). A direct double of weak notrump is penalty, showing at least 15 hcp (regardless of the opposing notrump range). A balancing double of weak notrump is values, showing at least 12 hcp.

If partner pulls a double of weak notrump, this normally shows a weak hand unsuited to defense. A jump-pull shows shape and invites game. If we are in a sequence where 1NT doubled or redoubled may be passed out, then partner of the doubler can bid $2\clubsuit$ “fix-it” for rescue. This is an artificial bid asking partner to take action.

If the opponents run after a double of their weak notrump, the first subsequent double of a suit contract by our side is *takeout*. Later doubles as the scramble continues are penalty oriented.

11 Defense to Natural Preempts

We bid naturally over preempts. Double is for takeout through $4\heartsuit$ and for penalty at higher levels. A 4NT bid over $4\spadesuit$ is for takeout. Our notrump overcalls at the two level show about 16-19 hcp with a stopper. Cuebid remains top and bottom.

After a takeout double by partner of a two-level preempt, we play a lebensohl 2NT response. The 2NT bid shows a bad hand (at most 8 hcp) and relays to $3\clubsuit$. We still play equal level correction, and doubler will bid $3\diamondsuit$ (instead of $3\clubsuit$) to show this type of hand without extras. Doubler’s higher bids show strength. If advancer bids at the three level (bypassing 2NT) this shows about 8-11 hcp. This is *not forcing* but suggests that doubler may wish to bid on if he has more than a minimum takeout double. A direct *jump* by advancer to the three level if forcing to game. Bidding lebensohl first and then a three level suit which *could have been bid at the two level* shows about 8-11 hcp. In general bidding 2NT always shows a weaker hand than bidding at the three level right away.

Jump shifts over preempts are strong (not necessarily forcing though) as we do not preempt over opposing preempts. However, jump shifts over intermediate bids (like our $2\clubsuit$ and $2\diamondsuit$ openings) remain weak.

12 Defense to Artificial One-Level Openers, and strong $2\clubsuit/\diamondsuit$

We play suction. We will play suction basically any time it is legal under the general chart. This includes defending against strong club, but also as a defense against a “short” club or diamond, or against polish club. The basic scheme is, any suit bid shows either the next higher suit, or *both* the two suits above that.

This continues forever, higher bids are more preemptive and show more shape. Notrump bids show two-suiters with non-touching suits.

In general, the partner of the suction bidder will bid the lowest place where he is willing to play. So for example after $1\clubsuit$ opening and partner's $1\heartsuit$ suction bid, $2\clubsuit$ shows desire to play $2\clubsuit$ if partner has minors, but to raise to $2\spadesuit$ if partner has spades.

There are a few modifications to our general approach when dealing with bids that are not always strong. In these situations, we use double to show any strong hand (at least fifteen points, often a balanced notrump). The response to this is like a takeout double, but the doubler will frequently make a natural call afterwards.

We will use a raise of the "suction" suit to show at least invitational values. This normally guarantees a good fit for the single-suited option, although if *very* strong we will also bid this way as it is the only way to force. For example, after $1\clubsuit$ opening by opponents and $1\heartsuit$ overcall, a $2\heartsuit$ bid is artificial and shows a good hand and usually $3+\spadesuit$. Overcaller now bids $2\spadesuit$ to show minimum with spades, $2NT$ to show maximum with spades, $3\clubsuit$ to show minimum with minors, $3\diamondsuit$ to show maximum with minors. In general with a weak two-suiter bid the lowest suit, with a weak one-suiter just bid the suit, with a strong two-suiter bid the highest of the two suits, with a strong one-suiter bid notrump or jump in the suit.

A notrump bid by responder shows values without a particularly good fit for the single-suited option. A one-suited overcaller can pass or raise with a maximum. With the two-suited hand, overcaller bids one of his suits (the lowest suit with a minimum two-suiter, higher suit with a max two-suiter).

13 Defense to Artificial Two-Bids with a Known Suit

If the bid promises length in the bid suit (for example $2\heartsuit$ opening showing hearts and a minor) then we treat it as natural. In some cases it is important to note that a double is takeout of the bid suit, *not* takeout for the two unbid suits. For example after a $3\clubsuit$ opening showing clubs and hearts, we would double with 4441 shape but *not* with 4144 shape unless extremely strong. This allows partner to judge when the opponents have a misfit and penalize when appropriate.

If the bid promises length (five or more) in one known suit, then cuebidding the known suit is a takeout double of that suit. For example, after $2\diamondsuit$ flannery (five hearts and four spades), a $2\heartsuit$ bid is takeout of hearts. Other bids are natural (including $2\spadesuit$ here since only four spades were indicated). Doubling the artificial bid shows a good hand with the suit bid (so $2\diamondsuit$ -X would show diamonds). Bidding the suit bid or above (for example $2\diamondsuit$ - $3\diamondsuit$) is preemptive and natural. Bids over $2\diamondsuit$ as a transfer preempt to hearts would be identical.

Bids which have both a strong and weak meaning (where the weak meaning

is much more frequent) will be treated as if having the weak meaning. For example, $2\clubsuit$ showing a strong hand or weak two in diamonds is treated as a transfer preempt in diamonds (one known suit) so $2\diamond$ is diamond takeout and other bids are natural.

If the bid promises length (five or more) in two known suits, then the lower cuebid shows interest in our lower suit and the higher cuebid shows interest in the higher suit (for example after 2NT minors, $3\clubsuit$ cue shows hearts and $3\diamond$ cue shows spades). These cuebids generally show better hands than bidding the suit directly (which indicates about 11-14 points, a minimum opener). Doubling an artificial bid which shows two known suits indicates an interest in penalizing.

14 Defense to Multi $2\diamond$

In direct seat after the multi $2\diamond$ opening, we act as if a weak two in spades has been opened. Our bids are:

double		takeout of spades
$2\heartsuit$		natural, five or more hearts
$2\spadesuit$		a cuebid, clubs and hearts (top and bottom)
2NT		balanced, about 16-19 hcp, stoppers in the majors
$3\clubsuit\diamond$		natural, sound overcalls

A direct seat pass followed by a subsequent double of hearts is takeout. A direct seat pass followed by a double of spades is penalty (we could have doubled $2\diamond$ for spade takeout).

After $2\diamond$ -pass- $2\heartsuit$, we play as if two hearts was the opening bid (since it is nonforcing). In general, if the opponents make an artificial bid which is nonforcing and frequently passed, we will treat it as natural. A pass here followed by a subsequent double of spades is for takeout.

15 Leads and Carding Agreements

Our leads are self-described as “goofy” and are loosely based on Rusinow. Our other carding is basically upside-down, with additional “obvious shift” style inferences and frequent suit preference.

15.1 Leads

Against a notrump contract, we lead 4th best. If leading a three-card suit (i.e. partner’s bid suit) we tend to lead low from an honor and high from garbage (attitude leads). We will also lead high from a very poor four-card suit.

When leading from an honor sequence, we normally lead the second highest card. We will normally lead low from two touching honors without another honor (for example 4th best from QJxx). With three touching honors, we lead second highest (J from QJTxx). With two touching honors and another honor

which may be higher or lower, we lead second highest (J from KJT_x and Q from KQT_x). We will consider a holding like J98_x to be an honor sequence (and lead the 9, second highest). Any lead of the 9 or higher always promises exactly one higher honor, except when leading from shortage (for example we will lead Q from Q_x in partner's bid suit). This means that from garbage headed by the 9 or T, we will lead second highest (7 from 97_x).

Against suit contracts, we lead 3rd/5th from length. From honor sequences are leads are basically unchanged, except that we will now lead second-highest from two-card sequences (Q from KQ_{xx}). From small doubletons, we lead low (basically an attitude lead). From three or more small cards, we continue to lead high.

15.2 Signals

We play upside-down attitude (low encourages). However, at trick one there is an additional inference about one of the other suits, which is designated as the "obvious shift."

There's a book about obvious shift carding by the Granovetters. For now, here are the rules for determining which suit is the obvious shift:

1. Obvious shift cannot be the suit lead
2. Obvious shift cannot be the trump suit
3. Obvious shift is not a suit where dummy has AKQ or 4 of top 5
4. Obvious shift in a suit contract is not dummy's singleton or void
5. Obvious shift cannot be a suit declarer bid naturally
6. Opening leader's bid suit is the obvious shift
7. Opening leader's partner's bid suit is the obvious shift
8. Against a suit contract, dummy's 3-card suit to at most 1 honor is the obvious shift
9. Dummy's shortest suit is the obvious shift
10. The suit with fewest honors (AKQJT) is the obvious shift
11. The lower-ranking suit is the obvious shift

We consider these rules in order until only one suit remains eligible to be the obvious shift. A discouraging signal at trick one says "please shift to the obvious shift suit." An encouraging signal denies interest in a switch to the obvious suit. At times this means we will encourage with nothing in the suit lead, simply to avoid a switch to the obvious suit. An unnecessary honor card asks for a switch to a suit *other* than the obvious suit.

After trick one, we play upside-down attitude. Most of the time, we give suit preference when following suit to declarer and dummy's plays. At times, when it is obvious to do so, we will give upside-down count, but in general our signals are suit preference. This includes lavinthal (suit preference) discards.

16 Defense to Recursive Diamond

Recursive diamond does not require an official recommended defense, as the system is general-chart legal except for the $1\heartsuit-1\spadesuit$ and $1\heartsuit-1NT$ response sequences (which are a popular convention called granville and do not require a recommended defense despite being on the mid-chart). Nonetheless, we have included our own recommendations from playing against other recursers. We recommend:

Treat the $1\clubsuit$ opener as a standard "short club" bid. Occasionally the $1\clubsuit$ opener will have a singleton or void in clubs but this is rare. Holding a hand with many clubs, you will normally get another chance to bid ($1\clubsuit$ is forcing unless partner holds long clubs) so it is safe to pass in direct seat.

Adapt your defense to precision club to work for our strong diamond. Do not bid a strong natural notrump over the strong diamond: this is very likely to be doubled and go for a large number! Some popular defenses include:

- Mathe: double for majors, 1NT for minors, others natural
- Suction: bids show the suit above or both the suits two above (so $2\clubsuit$ shows diamonds or majors), partner bids his tolerance. Notrump bids show two non-touching suits.
- Crash: The lowest three bids show two suiters of the same color, rank, or shape respectively. These bids could be double, $1\heartsuit$, and $1\spadesuit$ after our strong diamond. Two level bids are natural.
- It's possible to adapt most defenses to strong notrump to work over our $1\diamondsuit$.

Many defenses to weak notrump are available. Bidding naturally works fairly well; other possibilities include landy, astro, and cappelletti (pretty much any system which includes a penalty double is fine).

To defend against our 2NT opening (minors) we recommend using $3\clubsuit$ to show a good hand with hearts, $3\diamondsuit$ to show a good hand with spades. Double shows interest in penalizing one of both of the minors suits. Direct bids of $3\heartsuit$ or $3\spadesuit$ should still be reasonably sound (we can double for penalty after all) but tend to be six card suits with hands around the minimum opening range.

After the $1\spadesuit$ response to $1\heartsuit$ (showing a forcing notrump) we recommend using a double to show a good hand with spades (double of forcing artificial suit shows the bid suit). We recommend a 1NT bid here as takeout of hearts (takeout of the one real suit we have bid) keeping in mind that bidding a "strong notrump" is dangerous with both opponents in the auction. Other bids are the

same as they would be over 1♥-1NT forcing, except that 2♠ is preemptive since a double of 1♠ is available to show the good overcall.

After the 1NT response to 1♥ (showing five or more spades) we recommend all bids to have the same meaning as after a natural 1♥-1♠ auction (so double is takeout for minors, minors suits natural). You have lost the ability to bid a strong notrump (or sandwich) but this can be a dangerous action in such an auction anyway.

Our other openings and early sequences are mostly natural (five card majors, six-card minors at the two level) and should be easy to deal with. There are frequently opportunities to double artificial bids for the lead – make sure you and partner are on the same page as to the requirements for a lead directing double.